

Symbols

C_J	Junction Capacitance
I_F	DC Forward Current
$I_{(AV)}$	Average Forward Rectifier Current
I_{FSM}	Peak Forward Surge Current
I_R	Reverse Current
I_{RSM}	Maximum Non-Repetitive Peak Current
I_O	Mean Forward Current
I_T	On-State Test Current
I_{PPM}	Maximum peak impulse Current
I^2t	Rating for Fusing
P_D	Steady State Power Dissipation
P_{PK}	Peak Power Dissipation
$R_{\Theta JA}$	Thermal Resistance (Junction to Ambient)
$R_{\Theta JC}$	Thermal Resistance (Junction to Case)
$R_{\Theta JL}$	Thermal Resistance (Junction to Lead)
T_a	Ambient Temperature
T_c	Case Temperature
T_J	Junction Temperature
T_L	Lead Temperature
T_{tp}	Tie-Point Temperature
T_{rr}	Reverse Recovery Time
$V_{(BR)}$	Reverse Breakdown Voltage
V_F	Forward Voltage
V_R	Reverse Voltage
V_{RM}	Maximum Recurrent Peak Reverse Voltage
V_{RMS}	RMS Input Voltage
V_{RSM}	Maximum Reverse Voltage (Clamping Voltage) at I_{RSM}
V_{RRM}	Repetitive Peak Reverse Voltage
V_{RWM}	Working Peak Reverse Voltage (Stand-off Voltage)
V_Z	Zener Voltage
Z_{ZK}	Zener Impedance at I_{ZK}
Z_{ZT}	Zener Impedance at I_{ZT}



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Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

1A1 Series, 1 A, Case Type: R-1



1A1		1.0	50	50	-	30	1.1	1.0	5.0
1A2		1.0	50	100	-	30	1.1	1.0	5.0
1A3		1.0	50	200	-	30	1.1	1.0	5.0
1A4		1.0	50	400	-	30	1.1	1.0	5.0
1A5		1.0	50	600	-	30	1.1	1.0	5.0
1A6		1.0	50	800	-	30	1.1	1.0	5.0
1A7		1.0	50	1000	-	30	1.1	1.0	5.0

1N4001/SN1A Series, 1 A, Case Type: DO-41/SMA



1N4001	SN1A	1.0	75	50	10	30	1.0	1.0	5.0
1N4002	SN1B	1.0	75	100	10	30	1.0	1.0	5.0
1N4003	SN1D	1.0	75	200	10	30	1.0	1.0	5.0
1N4004	SN1G	1.0	75	400	10	30	1.0	1.0	5.0
1N4005	SN1J	1.0	75	600	10	30	1.0	1.0	5.0
1N4006	SN1K	1.0	75	800	10	30	1.0	1.0	5.0
1N4007	SN1M	1.0	75	1000	10	30	1.0	1.0	5.0
BY133	SN13	1.0	75	1300	10	30	1.0	1.0	5.0

BYW27/SNWA Series, 1 A, Case Type: DO-41/SMA



BYW27-50	SNWA	1.0	70	50	10	50	1.0	1.0	0.2
BYW27-100	SNWB	1.0	70	100	10	50	1.0	1.0	0.2
BYW27-200	SNWD	1.0	70	200	10	50	1.0	1.0	0.2
BYW27-400	SNWG	1.0	70	400	10	50	1.0	1.0	0.2
BYW27-600	SNWJ	1.0	70	600	10	50	1.0	1.0	0.2
BYW27-800	SNWK	1.0	70	800	10	50	1.0	1.0	0.2
BYW27-1000	SNWM	1.0	70	1000	10	50	1.0	1.0	0.2

11E1 Series, 1 A, Case Type: DO-41



11E1		1.0	40	100	-	45	1.0	1.0	50
11E2		1.0	40	200	-	45	1.0	1.0	50
11E4		1.0	40	400	-	45	1.0	1.0	10
11E6		1.0	40	600	-	45	1.0	1.0	10

11ES1 Series, 1 A, Case Type: DO-41



11ES1		1.0	40	100	-	45	1.0	1.0	50
11ES2		1.0	40	200	-	45	1.0	1.0	50



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

1SR35-100 Series, 1 A, Case Type: DO-41



1SR35-100		1.0	50	100	-	30	1.1	1.0	10
1SR35-200		1.0	50	200	-	30	1.1	1.0	10
1SR35-400		1.0	50	400	-	30	1.1	1.0	10

1SR139-100 Series, 1 A, Case Type: DO-41



1SR139-100		1.0	25	100	-	40	1.1	1.0	10
1SR139-200		1.0	25	200	-	40	1.1	1.0	10
1SR139-400		1.0	25	400	-	40	1.1	1.0	10
1SR139-600		1.0	25	600	-	40	1.1	1.0	10

1SR154-400 Series, 1 A, Case Type: SMA



	1SR154-400	1.0	25	400	-	30	1.1	1.0	10
	1SR154-600	1.0	25	600	-	30	1.1	1.0	10

EM01 Series, 1 A, Case Type: DO-41



EM01		1.0	25	400	-	45	0.97	1.0	10
EM01A		1.0	25	600	-	45	0.97	1.0	10
EM01Z		1.0	25	200	-	45	0.97	1.0	10

EM1 Series, 1 A, Case Type: DO-41



EM1		1.0	25	400	-	45	0.97	1.0	10
EM1A		1.0	25	600	-	45	0.97	1.0	10
EM1B		1.0	25	800	-	35	0.97	1.0	20
EM1C		1.0	25	1000	-	35	0.97	1.0	20

ERA15-01 Series, 1 A, Case Type: DO-41



ERA15-01		1.0	40	100	-	40	1.1	2.0	10
ERA15-02		1.0	40	200	-	40	1.1	2.0	10
ERA15-04		1.0	40	400	-	40	1.1	2.0	10
ERA15-06		1.0	40	600	-	40	1.1	2.0	10
ERA15-08		1.0	25	800	-	40	1.1	2.0	10
ERA15-10		1.0	25	1000	-	40	1.1	2.0	10



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

ERB12-01 Series, 1 A, Case Type: DO-41



ERB12-01		1.0	60	100	-	60	1.1	2.0	10
ERB12-02		1.0	60	200	-	60	1.1	2.0	10
ERB12-04		1.0	60	400	-	60	1.1	2.0	10
ERB12-06		1.0	60	600	-	60	1.1	2.0	10
ERB12-10		1.0	25	1000	-	50	1.1	2.0	10

MRA4003 Series, 1 A, Case Type: SMA



	MRA4003	1.0	150 (T _L)	300	-	30	1.18	2.0	10
	MRA4004	1.0	150 (T _L)	400	-	30	1.18	2.0	10
	MRA4005	1.0	150 (T _L)	600	-	30	1.18	2.0	10
	MRA4006	1.0	150 (T _L)	800	-	30	1.18	2.0	10
	MRA4007	1.0	150 (T _L)	1000	-	30	1.18	2.0	10

S1A Series, 1 A, Case Type: SMA



	S1A	1.0	110 (T _L)	50	-	40	1.1	1.0	1.0
	S1B	1.0	110 (T _L)	100	-	40	1.1	1.0	1.0
	S1D	1.0	110 (T _L)	200	-	40	1.1	1.0	1.0
	S1G	1.0	110 (T _L)	400	-	40	1.1	1.0	1.0
	S1J	1.0	110 (T _L)	600	-	40	1.1	1.0	1.0
	S1K	1.0	100 (T _L)	800	-	30	1.1	1.0	5.0
	S1M	1.0	100 (T _L)	1000	-	30	1.1	1.0	5.0

S5277 Series, 1.0 A, Case Type: DO-41



S5277B		1.0	25	100	-	55	1.2	1.0	10
S5277G		1.0	25	400	-	55	1.2	1.0	10
S5277J		1.0	25	600	-	33	1.2	1.0	10
S5277N		1.0	25	1000	-	33	1.2	1.0	10

S5566B Series, 1 A, Case Type: DO-41



S5566B		1.0	25	100	-	45	1.2	1.0	10
S5566G		1.0	25	400	-	45	1.2	1.0	10
S5566J		1.0	25	600	-	30	1.2	1.0	10
S5566N		1.0	25	1000	-	30	1.2	1.0	10

S5688B Series, 1 A, Case Type: R-1



S5688B		1.0	30	100	-	45	1.2	1.0	10
S5688G		1.0	30	400	-	45	1.2	1.0	10
S5688J		1.0	30	600	-	30	1.2	1.0	10
S5688N		1.0	30	1000	-	30	1.2	1.0	10



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

1S1885 Series, 1 A, Case Type: D2



1S1885		1.0	65	100	-	60	1.2	1.5	10
1S1886		1.0	65	200	-	60	1.2	1.5	10
1S1887		1.0	65	400	-	60	1.2	1.5	10
1S1888		1.0	65	600	-	60	1.2	1.5	10

EM2 Series, 1.2 A, Case Type: DO-41



EM2		1.2	25	400	-	80	0.92	1.2	10
EM2A		1.2	25	600	-	80	0.92	1.2	10
EM2B		1.2	25	800	-	80	0.92	1.2	10

ERC04-02 Series, 1.2 A, Case Type: D2A



ERC04-02		1.2	60	200	-	100	1.1	4.0	10
ERC04-04		1.2	60	400	-	100	1.1	4.0	10
ERC04-06		1.2	60	600	-	100	1.1	4.0	10
ERC04-10		1.2	60	1000	-	100	1.1	4.0	10

ERC05-06 Series, 1.2 A, Case Type: D2



ERC05-06		1.2	60	600	-	100	1.00	4.0	10
ERC05-08		1.2	60	800	-	100	1.00	4.0	10
ERC05-10		1.2	60	1000	-	100	1.00	4.0	10

ERC25-04 Series, 1.2 A, Case Type: D2



ERC25-04		1.2	40	400	-	50	1.10	1.2	10
ERC25-06		1.2	40	600	-	50	1.10	1.2	10

RM11A Series, 1.2 A, Case Type: D2



RM11A		1.2	70	600	15	100	0.92	1.5	10
RM11B		1.2	70	800	15	100	0.92	1.5	10
RM11C		1.2	70	1000	15	100	0.92	1.5	10

RM2 Series, 1.2 A, Case Type: D2A



RM2Z		1.2	70	200	15	100	0.91	1.5	10
RM2		1.2	70	400	15	100	0.91	1.5	10
RM2A		1.2	70	600	15	100	0.91	1.5	10
RM2B		1.2	70	800	15	100	0.91	1.5	10
RM2C		1.2	70	1000	15	100	0.91	1.5	10



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

RM10 Series, 1.2 - 1.5 A, Case Type: D2



RM10		1.2	70	400	15	150	0.91	1.5	10
RM10A		1.2	70	600	15	150	0.91	1.5	10
RM10B		1.2	70	800	15	150	0.91	1.5	10
RM10Z		1.5	70	200	15	120	0.91	1.5	10

1N5391/SNOA Series, 1.5 A, Case Type: DO-41/SMA



1N5391	SNOA	1.5	70	50	10	50	1.1	1.5	5.0
1N5392	SNOB	1.5	70	100	10	50	1.1	1.5	5.0
1N5393	SNOD	1.5	70	200	10	50	1.1	1.5	5.0
1N5394	SNOE	1.5	70	300	10	50	1.1	1.5	5.0
1N5395	SNOG	1.5	70	400	10	50	1.1	1.5	5.0
1N5396	SNOH	1.5	70	500	10	50	1.1	1.5	5.0
1N5397	SNOJ	1.5	70	600	10	50	1.1	1.5	5.0
1N5398	SNOK	1.5	70	800	10	50	1.1	1.5	5.0
1N5399	SNOM	1.5	70	1000	10	50	1.1	1.5	5.0

GP15A Series, 1.5 A, Case Type: D2



GP15A		1.5	55	50	-	50	1.10	1.5	5.0
GP15B		1.5	55	100	-	50	1.10	1.5	5.0
GP15D		1.5	55	200	-	50	1.10	1.5	5.0
GP15G		1.5	55	400	-	50	1.10	1.5	5.0
GP15J		1.5	55	600	-	50	1.10	1.5	5.0
GP15K		1.5	55	800	-	50	1.10	1.5	5.0
GP15M		1.5	55	1000	-	50	1.10	1.5	5.0

S2A Series, 1.5 A, Case Type: SMB



	S2A	1.5	75 (TL)	50	-	50	1.15	1.5	1.0
	S2B	1.5	75 (TL)	100	-	50	1.15	1.5	1.0
	S2D	1.5	75 (TL)	200	-	50	1.15	1.5	1.0
	S2G	1.5	75 (TL)	400	-	50	1.15	1.5	1.0
	S2J	1.5	75 (TL)	600	-	50	1.15	1.5	1.0
	S2K	1.5	75 (TL)	800	-	50	1.15	1.5	1.0
	S2M	1.5	75 (TL)	1000	-	50	1.15	1.5	1.0

ERD07-13 Series, 1.5 A, Case Type: DO-201AD



ERD07-13		1.5	125(TL)	1300	-	50	1.2	4.0	10
ERD07-15		1.5	125(TL)	1500	-	50	1.2	4.0	10



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

RM4 Series, 1.7 A, Case Type: DO-201AD



RM4Y		1.7	40	100	-	150	0.95	3.0	10
RM4Z		1.7	40	200	-	150	0.95	3.0	10
RM4		1.7	40	400	-	150	0.95	3.0	10

DL201 Series, 2 A, Case Type: D2



DL201		2.0	50	50	-	75	1.0	2.0	5.0
DL202		2.0	50	100	-	75	1.0	2.0	5.0
DL203		2.0	50	200	-	75	1.0	2.0	5.0
DL204		2.0	50	400	-	75	1.0	2.0	5.0
DL205		2.0	50	600	-	75	1.0	2.0	5.0
DL206		2.0	50	800	-	75	1.0	2.0	5.0
DL207		2.0	50	1000	-	75	1.0	2.0	5.0

DR200/SN2A Series, 2 A, Case Type: D2/SMB



DR200	SN2A	2.0	50	50	15	75	1.0	2.0	5.0
DR201	SN2B	2.0	50	100	15	75	1.0	2.0	5.0
DR202	SN2D	2.0	50	200	15	75	1.0	2.0	5.0
DR204	SN2G	2.0	50	400	15	75	1.0	2.0	5.0
DR206	SN2J	2.0	50	600	15	75	1.0	2.0	5.0
DR208	SN2K	2.0	50	800	15	75	1.0	2.0	5.0
DR210	SN2M	2.0	50	1000	15	75	1.0	2.0	5.0

RL251 Series, 2.5 A, Case Type: D2A



RL251		2.5	75	50	-	150	1.1	2.5	5
RL252		2.5	75	100	-	150	1.1	2.5	5
RL253		2.5	75	200	-	150	1.1	2.5	5
RL254		2.5	75	400	-	150	1.1	2.5	5
RL255		2.5	75	600	-	150	1.1	2.5	5
RL256		2.5	75	800	-	150	1.1	2.5	5
RL257		2.5	75	1000	-	150	1.1	2.5	5

RM3 Series, 2.5 A, Case Type: DO-201AD



RM3		2.5	50	400	-	150	0.95	2.5	10
RM3A		2.5	50	600	-	150	0.95	2.5	10
RM3B		2.5	50	800	-	150	0.95	2.5	10



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

BY251/SN21 Series, 3 A, Case Type: DO-201AD/SMC



BY251	SN21	3.0	50	200	20	100	1.1	3.0	20
BY252	SN22	3.0	50	400	20	100	1.1	3.0	20
BY253	SN23	3.0	50	600	20	100	1.1	3.0	20
BY254	SN24	3.0	50	800	20	100	1.1	3.0	20
BY255	SN25	3.0	50	1300	20	100	1.1	3.0	20

1N5400 /SN3A Series, 3 A, Case Type: DO-201AD/SMC



1N5400	SN3A	3.0	75	50	30	200	1.0	3.0	5.0
1N5401	SN3B	3.0	75	100	30	200	1.0	3.0	5.0
1N5402	SN3D	3.0	75	200	30	200	1.0	3.0	5.0
1N5404	SN3G	3.0	75	400	30	200	1.0	3.0	5.0
1N5406	SN3J	3.0	75	600	30	200	1.0	3.0	5.0
1N5407	SN3K	3.0	75	800	30	200	1.0	3.0	5.0
1N5408	SN3M	3.0	75	1000	30	200	1.0	3.0	5.0

SN3AS Series, 3.0 A, Case Type: SMB



	SN3AS	3.0	75	50	-	200	1.2	3.0	5.0
	SN3BS	3.0	75	100	-	200	1.2	3.0	5.0
	SN3DS	3.0	75	200	-	200	1.2	3.0	5.0
	SN3GS	3.0	75	400	-	200	1.2	3.0	5.0
	SN3JS	3.0	75	600	-	200	1.2	3.0	5.0
	SN3KS	3.0	75	800	-	200	1.2	3.0	5.0
	SN3MS	3.0	75	1000	-	200	1.2	3.0	5.0

BY550/SN5A Series, 5 A, Case Type: DO-201AD/SMC



BY550-50	SN5A	5.0	60	50	40	300	1.1	5.0	20
BY550-100	SN5B	5.0	60	100	40	300	1.1	5.0	20
BY550-200	SN5D	5.0	60	200	40	300	1.1	5.0	20
BY550-400	SN5G	5.0	60	400	40	300	1.1	5.0	20
BY550-600	SN5J	5.0	60	600	40	300	1.1	5.0	20
BY550-800	SN5K	5.0	60	800	40	300	1.1	5.0	20
BY550-1000	SN5M	5.0	60	1000	40	300	1.1	5.0	20

6A05 Series, 6 A, Case Type: D6



6A05		6.0	60	50	-	400	0.95	6.0	5.0
6A1		6.0	60	100	-	400	0.95	6.0	5.0
6A2		6.0	60	200	-	400	0.95	6.0	5.0
6A4		6.0	60	400	-	400	0.95	6.0	5.0
6A6		6.0	60	600	-	400	0.95	6.0	5.0
6A8		6.0	60	800	-	400	0.95	6.0	5.0
6A10		6.0	60	1000	-	400	1.00	6.0	5.0



Silicon Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

P600A Series, 6 A, Case Type: D6



P600A		6.0	60	50	-	400	0.9	6.0	5.0
P600B		6.0	60	100	-	400	0.9	6.0	5.0
P600D		6.0	60	200	-	400	0.9	6.0	5.0
P600G		6.0	60	400	-	400	0.9	6.0	5.0
P600J		6.0	60	600	-	400	0.9	6.0	5.0
P600K		6.0	60	800	-	400	0.9	6.0	5.0
P600M		6.0	60	1000	-	400	1.0	6.0	5.0

P800A Series, 8 A, Case Type: D6



P800A		8.0	50	50	-	400	1.0	8.0	5.0
P800B		8.0	50	100	-	400	1.0	8.0	5.0
P800D		8.0	50	200	-	400	1.0	8.0	5.0
P800G		8.0	50	400	-	400	1.0	8.0	5.0
P800J		8.0	50	600	-	400	1.0	8.0	5.0
P800K		8.0	50	800	-	400	1.0	8.0	5.0

NS8AT Series, 8 A, Case Type: TO-220AC



NS8AT		8.0	100(Tc)	50	-	175	1.1	8.0	10
NS8BT		8.0	100(Tc)	100	-	175	1.1	8.0	10
NS8DT		8.0	100(Tc)	200	-	175	1.1	8.0	10
NS8GT		8.0	100(Tc)	400	-	175	1.1	8.0	10
NS8JT		8.0	100(Tc)	600	-	175	1.1	8.0	10
NS8KT		8.0	100(Tc)	800	-	175	1.1	8.0	10
NS8MT		8.0	100(Tc)	1000	-	175	1.1	8.0	10

10A01 Series, 10 A, Case Type: D6



10A01		10	50	50	-	600	1.3	10	10
10A02		10	50	100	-	600	1.3	10	10
10A03		10	50	200	-	600	1.3	10	10
10A04		10	50	400	-	600	1.3	10	10
10A05		10	50	600	-	600	1.3	10	10
10A06		10	50	800	-	600	1.3	10	10
10A07		10	50	1000	-	600	1.3	10	10



Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

GL34A Series, 0.5 A, Case Type: Mini MELF (Plastic)



GL34A		0.5	75(T _T)	50	-	10	1.2	0.5	5.0
GL34B		0.5	75(T _T)	100	-	10	1.2	0.5	5.0
GL34D		0.5	75(T _T)	200	-	10	1.2	0.5	5.0
GL34G		0.5	75(T _T)	400	-	10	1.2	0.5	5.0
GL34J		0.5	75(T _T)	600	-	10	1.3	0.5	5.0

1G1 Series, 1 A, Case Type: R-1



1G1		1.0	50	50	-	30	1.1	1.0	5.0
1G2		1.0	50	100	-	30	1.1	1.0	5.0
1G3		1.0	50	200	-	30	1.1	1.0	5.0
1G4		1.0	50	400	-	30	1.1	1.0	5.0
1G5		1.0	50	600	-	30	1.1	1.0	5.0
1G6		1.0	50	800	-	30	1.1	1.0	5.0
1G7		1.0	50	1000	-	30	1.1	1.0	5.0

AM01A, 1 A, Case Type: M1A



AM01A		1.0	25	600	-	35	0.98	1.0	10
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LMN1A Series, 1 A, Case Type: M1A



LMN1A		1.0	50	50	-	30	1.0	1.0	5.0
LMN1B		1.0	50	100	-	30	1.0	1.0	5.0
LMN1D		1.0	50	200	-	30	1.0	1.0	5.0
LMN1G		1.0	50	400	-	30	1.0	1.0	5.0
LMN1J		1.0	50	600	-	30	1.0	1.0	5.0
LMN1K		1.0	50	800	-	30	1.0	1.0	5.0
LMN1M		1.0	50	1000	-	30	1.0	1.0	5.0

1N4001G/GN1A Series, 1 A, Case Type: DO-41/SMA



1N4001G	GN1A	1.0	75	50	10	30	1.0	1.0	5.0
1N4002G	GN1B	1.0	75	100	10	30	1.0	1.0	5.0
1N4003G	GN1D	1.0	75	200	10	30	1.0	1.0	5.0
1N4004G	GN1G	1.0	75	400	10	30	1.0	1.0	5.0
1N4005G	GN1J	1.0	75	600	10	30	1.0	1.0	5.0
1N4006G	GN1K	1.0	75	800	10	30	1.0	1.0	5.0
1N4007G	GN1M	1.0	75	1000	10	30	1.0	1.0	5.0
BY133G	GN13	1.0	75	1300	10	30	1.0	1.0	5.0



Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

GF1A Series, 1 A, Case Type: SMA



	GF1A	1.0	75	50	-	30	1.0	1.0	5.0
	GF1B	1.0	75	100	-	30	1.0	1.0	5.0
	GF1D	1.0	75	200	-	30	1.0	1.0	5.0
	GF1G	1.0	75	400	-	30	1.0	1.0	5.0
	GF1J	1.0	75	600	-	30	1.0	1.0	5.0
	GF1K	1.0	75	800	-	30	1.0	1.0	5.0
	GF1M	1.0	75	1000	-	30	1.0	1.0	5.0

DL4001 Series, 1 A, Case Type: MELF (Plastic)



	DL4001	1.0	75	50	-	30	1.1	1.0	5.0
	DL4002	1.0	75	100	-	30	1.1	1.0	5.0
	DL4003	1.0	75	200	-	30	1.1	1.0	5.0
	DL4004	1.0	75	400	-	30	1.1	1.0	5.0
	DL4005	1.0	75	600	-	30	1.1	1.0	5.0
	DL4006	1.0	75	800	-	30	1.1	1.0	5.0
	DL4007	1.0	75	1000	-	30	1.1	1.0	5.0

GP10A Series, 1 A, Case Type: DO-41



GP10A		1.0	75	50	-	30	1.1	1.0	5.0
GP10B		1.0	75	100	-	30	1.1	1.0	5.0
GP10D		1.0	75	200	-	30	1.1	1.0	5.0
GP10G		1.0	75	400	-	30	1.1	1.0	5.0
GP10J		1.0	75	600	-	30	1.1	1.0	5.0
GP10K		1.0	75	800	-	30	1.2	1.0	5.0
GP10M		1.0	75	1000	-	30	1.2	1.0	5.0
GP10N		1.0	75	1100	-	30	1.2	1.0	5.0
GP10Q		1.0	75	1200	-	30	1.2	1.0	5.0
GP10T		1.0	75	1300	-	30	1.3	1.0	5.0
GP10V		1.0	75	1400	-	30	1.3	1.0	5.0
GP10W		1.0	75	1500	-	30	1.3	1.0	5.0
GP10Y		1.0	75	1600	-	30	1.3	1.0	5.0

GL41Y, 1 A, Case Type: MELF



	GL41Y	1.0	75	1600	-	30	1.2	1.0	10
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Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

1N5391G/GNOA Series, 1.5 A, Case Type: DO-41/SMA

1N5391G	GNOA	1.5	75	50	-	50	1.1	1.5	5.0
1N5392G	GNOB	1.5	75	100	-	50	1.1	1.5	5.0
1N5393G	GNOB	1.5	75	200	-	50	1.1	1.5	5.0
1N5394G	GNOE	1.5	75	300	-	50	1.1	1.5	5.0
1N5395G	GNOG	1.5	75	400	-	50	1.1	1.5	5.0
1N5396G	GNOH	1.5	75	500	-	50	1.1	1.5	5.0
1N5397G	GNOJ	1.5	75	600	-	50	1.1	1.5	5.0
1N5398G	GNOK	1.5	75	800	-	50	1.1	1.5	5.0
1N5399G	GNOM	1.5	75	1000	-	50	1.1	1.5	5.0

DR200G/GN2A Series, 2 A, Case Type: D2/SMB

DR200G	GN2A	2.0	50	50	15	75	1.0	2.0	5.0
DR201G	GN2B	2.0	50	100	15	75	1.0	2.0	5.0
DR202G	GN2D	2.0	50	200	15	75	1.0	2.0	5.0
DR204G	GN2G	2.0	50	400	15	75	1.0	2.0	5.0
DR206G	GN2J	2.0	50	600	15	75	1.0	2.0	5.0
DR208G	GN2K	2.0	50	800	15	75	1.0	2.0	5.0
DR210G	GN2M	2.0	50	1000	15	75	1.0	2.0	5.0

GNTA Series, 2.5 A, Case Type: SMB

	GNTA	2.5	75	50	-	150	1.1	2.5	5.0
	GNTB	2.5	75	100	-	150	1.1	2.5	5.0
	GNTD	2.5	75	200	-	150	1.1	2.5	5.0
	GNTG	2.5	75	400	-	150	1.1	2.5	5.0
	GNTJ	2.5	75	600	-	150	1.1	2.5	5.0
	GNTK	2.5	75	800	-	150	1.1	2.5	5.0
	GNTM	2.5	75	1000	-	150	1.1	2.5	5.0

1N5400G/GN3A Series, 3 A, Case Type: DO-201AD/SMC

1N5400G	GN3A	3.0	75	50	20	150	1.0	3.0	5.0
1N5401G	GN3B	3.0	75	100	20	150	1.0	3.0	5.0
1N5402G	GN3D	3.0	75	200	20	150	1.0	3.0	5.0
1N5404G	GN3G	3.0	75	400	20	150	1.0	3.0	5.0
1N5406G	GN3J	3.0	75	600	20	150	1.0	3.0	5.0
1N5407G	GN3K	3.0	75	800	20	150	1.1	3.0	5.0
1N5408G	GN3M	3.0	75	1000	20	150	1.1	3.0	5.0

BY550-1000GS, 6 A, Case Type: DO-201AD

BY550-1000GS		5.0	60	1000	-	300	1.1	5.0	20
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High Speed Switching Diodes

Type No.	Max. Average Forward Rectified Current		Max. Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Repetitive Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾	Max. Power Dissipation
	I _{F(AV)}	@ Ta	V _{RM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}	P _D
	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(ns)	(mW)

1N4148 Series, Case Type: DO-35



1N4148	150	25	75	450	0.5	1.0	10	5.0	4	500
1N4149	150	25	100	-	0.5	1.0	10	5.0 nA	4	500
1N4150	200	25	50	600	0.5	1.0	200	0.1	4	500
1N4151	200	25	75	450	0.5	1.0	50	0.05	4	500
1N4152	150	25	30	450	-	0.88	20	0.05	2	500
1N4153	150	25	50	450	-	0.88	20	0.05	2	500
1N4154	150	25	25	450	-	1.0	30	0.1	4	500

1N4447 Series, Case Type: DO-35



1N4447	150	25	75	450	-	1.0	20	5.0	4	500
1N4448	150	25	75	450	-	1.0	10	5.0	4	500
1N4449	150	25	75	450	-	1.0	30	5.0	4	500
1N4450	200	25	30	600	-	1.0	200	0.05	4	500
1N4454	150	25	75	450	-	1.0	10	5.0	4	500

1N4531 Series, Case Type: DO-34



1N4531	200	75	75	-	0.5	1.0	10	25 nA	4	500
1N4532	200	75	75	-	0.5	1.0	10	100 nA	2	500
1N4148S	150	25	75	450	0.5	1.0	10	5.0	4	500

1N914 Series, Case Type: DO-35



1N914	75	25	75	-	0.5	1.0	10	25 nA	4	250
1N914A	75	25	75	-	0.5	1.0	20	25 nA	4	250
1N914B	75	25	75	-	0.5	0.72	5	25 nA	4	250

1S1585 Series, Case Type: DO-35



1S1585	150	25	80	-	0.7	1.0	100	0.5	2	300
1S1586	150	25	50	-	0.7	1.0	100	0.5	2	300
1S1587	130	25	50	-	0.6	1.2	100	0.5	2	300
1S1588	120	25	30	-	0.5	1.3	100	0.5	4	300
1S2076A	150	25	70	-	1.0	0.8	10	0.1	4	250

1SS130 Series, Case Type: DO-34



1SS130	130	25	75	400	-	1.0	10	0.5	4	300
1SS131	130	25	80	400	0.6	1.2	100	0.5	4	300
1SS132	120	25	50	350	0.5	1.2	100	0.5	4	300
1SS133	110	25	35	300	0.6	1.2	100	0.5	4	300

Note : (1) Reverse Recovery test conditions : I_F = 1A, di/dt = 50 A/ms



High Speed Switching Diodes

Type No.	Max. Average Forward Rectified Current		Max. Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Repetitive Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾	Max. Power Dissipation
	I _{F(AV)}	@ Ta	V _{RM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}	P _D
	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(ns)	(mW)

1SS176 Series, Case Type: DO-34



1SS176	100	25	30	300	1.0	1.2	100	0.5	4.0	300
1SS177	100	25	50	300	1.0	1.2	100	0.5	4.0	300
1SS178	100	25	80	300	1.0	1.2	100	0.5	4.0	300
1SS270A	150	25	70	-	1.0	0.8	10	1.0	3.5	250
BAS15	100	150	50	225	0.5	1.1	100	0.2	4.0	350

BAV10 Series, Case Type: DO-35



BAV10	300	25	60	600	1.0	1.0	200	0.1	6	350
BAV19	200	25	100	625	1.0	1.0	100	0.1	50	500
BAV20	200	25	150	625	1.0	1.0	100	0.1	50	500
BAV21	200	25	200	625	1.0	1.0	100	0.1	50	500

BAW62 Series, Case Type: DO-35



BAW62	250	25	75	450	0.5	1.0	100	5.0	4	350
BAW75	150	25	25	-	2.0	1.0	30	0.1	4	500
BAW76	150	25	50	-	2.0	1.0	100	0.1	4	500

BAV100 Series, Case Type: Mini MELF



BAV100	200	25	50	625	1.0	1.0	100	0.1	50	400
BAV101	200	25	100	625	1.0	1.0	100	0.1	50	400
BAV102	200	25	150	625	1.0	1.0	100	0.1	50	400
BAV103	200	25	200	625	1.0	1.0	100	0.1	50	400
BAV105	300	25	60	600	0.5	1.0	200	0.1	6	500

BAX14 Series, Case Type: DO-35



BAX14	400	25	40	2A	9.0	1.00	300	0.1	50	450
BAX18	400	25	75	2A	9.0	1.00	300	5.0	50	450
BAY80	200	25	150	650	1.0	1.07	150	0.1	50	400

LL4148 Series, Case Type: Mini MELF



LL4148	200	25	75	450	0.5	1.00	10	5.00	4	500
LL4150	200	25	50	600	0.5	1.00	200	0.10	4	500
LL4151	200	25	50	450	0.5	1.00	50	0.05	4	500
LL4153	200	25	50	450	0.5	0.88	50	0.05	4	500
LL4448	200	25	75	450	0.5	1.00	100	5.00	4	500



High Speed Switching Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Repetitive Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾	Max. Power Dissipation
	I _{F(AV)}	@ Ta	V _{RM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}	P _D
	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(ns)	(mW)

BAV19W - 21W, Case Type: SOD-123



BAV19W	200	25	120	625	2.5	1.0	100	0.1	50	250
BAV20W	200	25	200	625	2.5	1.0	100	0.1	50	250
BAV21W	200	25	250	625	2.5	1.0	100	0.1	50	250

1N4448W, Case Type: SOD-123



1N4448W	150	25	100	-	4.0	1.25	150	0.1	4.0	400
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1N914W, Case Type: SOD-123



1N914W	200	25	100	-	1.0	1.00	10	5.0	4.0	400
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1N4148W/WS/WT, Case Type: SOD-123, SOD-323, SOD-523



1N4148W	150	25	100	-	0.50	1.0	10	5.0	4.0	400
1N4148WS	150	25	75	-	0.35	1.0	10	5.0	4.0	200
1N4148WT	125	25	100	-	2.00	1.0	50	1.0	4.0	150

1SS355 Series, Case Type: SOD-323



1SS355	100	25	90	-	0.5	1.2	100	0.1	4.0	-
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BAS16WS, Case Type: SOD-323



BAS16WS	250	25	75	-	0.5	1.0	50	1.0	6.0	200
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BAV19WS Series, Case Type: SOD-323



BAV19WS	200	25	100	625	1.0	1.0	100	0.1	50	200
BAV20WS	200	25	150	625	1.0	1.0	100	0.1	50	200
BAV21WS	200	25	200	625	1.0	1.0	100	0.1	50	200

BAS216WS - 316WS, BAS321, Case Type: SOD-323



BAS216WS	250	25	85	-	4.0	1.25	150	1.0	4.0	400
BAS316WS	250	90	100	-	4.0	1.25	150	1.0	4.0	400
BAS321	250	25	250	-	9.0	1.25	200	0.1	4.0	300

1SS352 Series, Case Type: SOD-323



1SS352	100	25	85	-	1.0	0.98	100	0.5	4.0	200
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High Speed Switching Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Repetitive Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾	Max. Power Dissipation
	I _{F(AV)}	@ Ta	V _{RM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}	P _D
	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(ns)	(mW)

RB520S-30, Case Type: SOD-523



RB520S-30	200	25	30	-	1.0	0.6	200	1.0	4.0	-
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BAS216WT, Case Type: SOD-523



BAS216WT	250	25	85	-	4.0	1.25	150	1.0	4.0	400
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1N914WT, Case Type: SOD-523



1N914WT	200	25	100	-	0.5	1.00	10	5.0	4.0	150
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BAS521, Case Type: SOD-523



BAS521	250	90	300	-	4.5	1.10	100	0.2	50	500
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1SS181- 7 Series, Case Type: SOT-23



1SS181	100	25	85	-	2.0	1.2	100	0.5	4.0	150
1SS184	100	25	85	-	2.0	1.2	100	0.5	4.0	150
1SS187	100	25	85	-	2.0	1.2	100	0.5	4.0	150

1SS226, Case Type: SOT-23



1SS226	100	25	85	-	2.0	1.2	100	0.5	4.0	150
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BAS16, Case Type: SOT-23



BAS16	215	25	85	500	4	1.25	150	1.0	4.0	250
BAS116	215	25	85	500	4	1.25	150	5(nA)	3(μs)	250

BAS19 - 21, Case Type: SOT-23



BAS19	200	25	120	-	9	1.0	100	0.1	50	250
BAS20	200	25	200	-	9	1.0	100	0.1	50	250
BAS21	200	25	250	-	9	1.0	100	0.1	50	250



High Speed Switching Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Repetitive Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾	Max. Power Dissipation
	I _{F(AV)}	@ Ta	V _{RM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}	P _D
	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(ns)	(mW)

BAS70 Series, Case Type: SOT-23



BAS70-00	200	25	70	-	0.6	1.0	15	0.1	5.0	200
BAS70-04	200	25	70	-	0.6	1.0	15	0.1	5.0	200
BAS70-05	200	25	70	-	0.6	1.0	15	0.1	5.0	200
BAS70-06	200	25	70	-	0.6	1.0	15	0.1	5.0	200

BAV23 Series, Case Type: SOT-23



BAV23	400	25	250	625	9.0	1.0	100	0.1	50	350
BAV23SE	400	25	250	625	9.0	1.0	100	0.1	50	350
BAV23CC	400	25	250	625	9.0	1.0	100	0.1	50	350
BAV23CA	400	25	250	625	9.0	1.0	100	0.1	50	350

BAV70 & BAV99, Case Type: SOT-23



BAV70	200	25	70	-	2	1.0	50	5.0	6.0	350
BAV99	125	25	85	450	1	1.0	50	1.0	4.0	250

BAW56, Case Type: SOT-23



BAW56	125	25	85	450	4	1.25	150	1.0	4.0	250
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BAT400D, Case Type: SOT-23



BAT400D	500	25	40	-	3.0	0.55	500	30	4.0	480
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MMBD914/MMBD7000, Case Type: SOT-23



MMBD914	200	25	100	-	0.5	1.0	10	5.0	4.0	225
MMBD7000	200	25	100	-	2.0	1.1	100	3	4.0	350

MMBD4148, Case Type: SOT-23



MMBD4148	200	25	100	700	1.0	1.0	10	5.0	4.0	350
MMBD4148SE	200	25	100	700	1.0	1.0	10	5.0	4.0	350
MMBD4148CC	200	25	100	700	1.0	1.0	10	5.0	4.0	350
MMBD4148CA	200	25	100	700	1.0	1.0	10	5.0	4.0	350



High Voltage Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

HVR125 Series, 0.2 - 0.5 A, Case Type: DO-41



HVR125		0.5	50	2500	5.0	30	3.3	1.0	5.0
HVR130		0.5	50	3000	5.0	30	3.3	1.0	5.0
HVR140		0.3	50	4000	5.0	30	5.0	1.0	5.0
HVR150		0.3	50	5000	5.0	30	5.0	1.0	5.0
HVR160		0.2	50	6000	5.0	30	8.0	1.0	5.0
HVR170		0.2	50	7000	5.0	30	8.0	1.0	5.0
HVR180		0.2	50	8000	5.0	30	8.0	1.0	5.0

GP02-20 Series, 0.25 A, Case Type: DO-41



GP02-20		0.25	55	2000	-	15	3.0	1.0	5.0
GP02-25		0.25	55	2500	-	15	3.0	1.0	5.0
GP02-30		0.25	55	3000	-	15	3.0	1.0	5.0
GP02-35		0.25	55	3500	-	15	3.0	1.0	5.0
GP02-40		0.25	55	4000	-	15	3.0	1.0	5.0

HVR230 Series, 0.5 - 1 A, Case Type: D2



HVR230		1.0	50	3000	-	50	3.0	1.0	5.0
HVR250		0.5	50	5000	-	50	5.0	1.0	5.0

HVR112/SN1N Series, 1 A, Case Type: DO-41/SMA



HVR112	SN1N	1.0	75	1200	5.0	30	2.2	1.0	5.0
HVR114	SN1O	1.0	75	1400	5.0	30	2.2	1.0	5.0
HVR116	SN1P	1.0	75	1600	5.0	30	2.2	1.0	5.0
HVR118	SN1Q	1.0	75	1800	5.0	30	2.2	1.0	5.0
HVR120	SN1R	1.0	75	2000	5.0	30	2.2	1.0	5.0
	S1T	1.0	75	3000	-	30	3.0	1.0	5.0

SHV-01JN - SHV-06HN, 2 - 30 mA, Case Type: M1A & DO-41



SHV-01JN*		0.030	25	500	-	3.0	1.0	0.010	10
SHV-02JN		0.030	25	1000	-	3.0	2.0	0.010	10
SHV-06JN		0.030	25	3000	-	3.0	6.0	0.010	10
SHV-05J		0.030	25	2500	-	3.0	5.0	0.010	10
SHV-04		0.002	25	4000	-	0.5	20	0.010	1.0
SHV-06HN		0.002	25	6000	-	0.5	24	0.010	1.0

* M1A Package

HVR3509/HVR3509H, 0.35A, Case Type: DO-201AD



HVR3509		0.35A	25	9000	-	30	8.0	0.35	5.0
HVR3509H		0.35A	25	9000	-	30	10	0.35	5.0



High Voltage Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

HVR4509 , 0.45A, Case Type: DO-201AD



HVR4509		0.45A	25	9000	-	30	8.0	0.45	5.0
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HVR312/SN3N Series, 3 A, Case Type: DO-201AD/SMC



HVR312	SN3N	3.0	50	1200	10	100	2.2	3.0	10
HVR314	SN3O	3.0	50	1400	10	100	2.2	3.0	10
HVR316	SN3P	3.0	50	1600	10	100	2.2	3.0	10
HVR318	SN3Q	3.0	50	1800	10	100	2.2	3.0	10
HVR320	SN3R	3.0	50	2000	10	100	2.2	3.0	10

HVR512/SN5N Series, 5 A, Case Type: DO-201AD/SMC



HVR512	SN5N	5.0	50	1200	20	200	2.2	5.0	10
HVR514	SN5O	5.0	50	1400	20	200	2.2	5.0	10
HVR516	SN5P	5.0	50	1600	20	200	2.2	5.0	10
HVR518	SN5Q	5.0	50	1800	20	200	2.2	5.0	10
HVR520	SN5R	5.0	50	2000	20	200	2.2	5.0	10

Note: V_{RRM} > 2000 V is available on special request

High Voltage Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Reverse Recovery Time	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		Current		Voltage	Time	Current	at Ta=25°C		at Ta=25°C
		I _{F(AV)}	@ Ta	V _{RRM}	T _{rr}	I _{FSM}	V _F	@ I _F	I _R
Axial Lead	SMD	(A)	(°C)	(V)	(ns)	(A)	(V)	(A)	(μA)

SHV-02 -SHV-03S, 2 mA, Case Type: M1A



SHV-02		0.002	25	2000	180 ⁽¹⁾	0.3	16	0.010	1.0
SHV-03		0.002	25	3000	180 ⁽¹⁾	0.5	16	0.010	1.0
SHV-03S		0.002	25	3000	180 ⁽¹⁾	0.3	16	0.010	1.0

SHV- 05EN - SHV- 08EN, 2 mA, Case Type: DO-41



SHV-05EN		0.002	25	5000	150 ⁽¹⁾	0.5	20	0.010	1.0
SHV-06EN		0.002	25	6000	150 ⁽¹⁾	0.5	24	0.010	1.0
SHV-08EN		0.002	25	8000	50 ⁽²⁾	0.5	30	0.010	1.0

Notes:

- (1) Reverse Recovery Test Conditions : I_F = 10 mA, I_{RP} = 10 mA.
- (2) Reverse Recovery Test Conditions : I_F = 0.5A, I_R = 1 A, I_{rr} = 0.25 A



High Voltage Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time ⁽¹⁾
	I _{F(AV)} @ T _a		V _{RRM}	I _{FRM}	I _{FSM}	V _F @ I _F		I _R	T _{rr}
	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

BY8004 Series, Case Type: DO-41



BY8004	0.02	90	5000	0.5	-	20	0.1	3.0 *	100
BY8006	0.01	100	8000	0.5	-	25	0.1	3.0 *	100

* T_j=120°C

HFR125 Series, 0.25 - 0.30 A, Case Type: DO-41



HFR125	0.25	50	2500	-	30	5.0	0.25	1.0	250
HFR130	0.25	50	3000	-	30	7.0	0.25	1.0	200
HFR180	0.30	50	8000	-	40	9.0	0.3	5.0	200

HUF150 , 0.5 A, Case Type: DO-41



HUF150	0.5	50	5000	-	20	12.0	0.5	5.0	90
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GS1S , 0.2 A, Case Type: SMA



GS1S	0.2	25	2500	-	30	6.0	0.2	1.0	35
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RGP02 Series, 0.5 A, Case Type: DO-41



RGP02-12E	0.5	55	1200	5.0	20	1.8	0.1	5.0	300
RGP02-14E	0.5	55	1400	5.0	20	1.8	0.1	5.0	300
RGP02-16E	0.5	55	1600	5.0	20	1.8	0.1	5.0	300
RGP02-18E	0.5	55	1800	5.0	20	1.8	0.1	5.0	300
RGP02-20E	0.5	55	2000	5.0	20	1.8	0.1	5.0	300

SR1P Series, 0.5 A, Case Type: SMA



SR1N	0.5	75	1200	-	30	2.6	1.0	5.0	300
SR1O	0.5	75	1400	-	30	2.6	1.0	5.0	300
SR1P	0.5	75	1600	-	30	2.6	1.0	5.0	300
SR1R	0.5	75	2000	-	30	3.0	0.5	5.0	500

GR15 Series, 1 A, Case Type: DO-215AC



GR15-G	0.5	55	1500	-	20	2.0	0.1	5.0	300
GR20-G	0.5	55	2000	-	20	2.4	0.1	5.0	500

UHVR112, 1.0A Case Type: DO-41



UHVR112	1.0	75	1200	-	30	2.2	1.0	5.0	75
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3TH41 Series, 3 A, Case Type: DO-201AD



3TH41	3.0	25	1500	-	50	1.2	3.0	10	1.5μs ⁽²⁾
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FHVR1120, 0.2A Case Type: D2



FHVR1120	0.2	50	12000	-	20	13	0.2	5.0	150
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Notes: (1) Reverse Recovery test conditions : I_F = 0.5A, I_R = 1 A, I_{rr} = 0.25 A

(2) Reverse Recovery test conditions : I_F = 100 mA, I_R = 100 mA



Cell Rectifier Diodes

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
	I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R
	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

CN3 Series, 3 A, Case Type: C3A



CN3A	3.0	75	50	30	200	1.1	3.0	5.0
CN3B	3.0	75	100	30	200	1.1	3.0	5.0
CN3D	3.0	75	200	30	200	1.1	3.0	5.0
CN3G	3.0	75	400	30	200	1.1	3.0	5.0
CN3J	3.0	75	600	30	200	1.1	3.0	5.0
CN3K	3.0	75	800	30	200	1.1	3.0	5.0
CN3M	3.0	75	1000	30	200	1.1	3.0	5.0

CN5 Series, 5 A, Case Type: C5A



CN5A	5.0	75	50	60	250	1.1	5.0	5.0
CN5B	5.0	75	100	60	250	1.1	5.0	5.0
CN5D	5.0	75	200	60	250	1.1	5.0	5.0
CN5G	5.0	75	400	60	250	1.1	5.0	5.0
CN5J	5.0	75	600	60	250	1.1	5.0	5.0
CN5K	5.0	75	800	60	250	1.1	5.0	5.0
CN5M	5.0	75	1000	60	250	1.1	5.0	5.0

CN8 Series, 8 A, Case Type: C8A



CN8A	8.0	75	50	60	300	1.1	8.0	5.0
CN8B	8.0	75	100	60	300	1.1	8.0	5.0
CN8D	8.0	75	200	60	300	1.1	8.0	5.0
CN8G	8.0	75	400	60	300	1.1	8.0	5.0
CN8J	8.0	75	600	60	300	1.1	8.0	5.0
CN8K	8.0	75	800	60	300	1.1	8.0	5.0
CN8M	8.0	75	1000	60	300	1.1	8.0	5.0

CN18 Series, 18 A, Case Type: C18A



CN18A	18	75	50	75	400	1.1	18	5.0
CN18B	18	75	100	75	400	1.1	18	5.0
CN18D	18	75	200	75	400	1.1	18	5.0
CN18G	18	75	400	75	400	1.1	18	5.0
CN18J	18	75	600	75	400	1.1	18	5.0
CN18K	18	75	800	75	400	1.1	18	5.0
CN18M	18	75	1000	75	400	1.1	18	5.0

CN25 Series, 25 A, Case Type: C18A



CN25A	25	75	50	75	400	1.1	25	5.0
CN25B	25	75	100	75	400	1.1	25	5.0
CN25D	25	75	200	75	400	1.1	25	5.0
CN25G	25	75	400	75	400	1.1	25	5.0
CN25J	25	75	600	75	400	1.1	25	5.0
CN25K	25	75	800	75	400	1.1	25	5.0
CN25M	25	75	1000	75	400	1.1	25	5.0



Automotive Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
	I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R
	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)

AR2500/MR2500 Series, 25 A, Case Type: BUTTON/MR



AR2500 ⁽¹⁾	MR2500 ⁽¹⁾	25	150	50	75	400	1.0	25	5.0
AR2501 ⁽¹⁾	MR2501 ⁽¹⁾	25	150	100	75	400	1.0	25	5.0
AR2502 ⁽¹⁾	MR2502 ⁽¹⁾	25	150	200	75	400	1.0	25	5.0
AR2504 ⁽¹⁾	MR2504 ⁽¹⁾	25	150	400	75	400	1.0	25	5.0
AR2506 ⁽¹⁾	MR2506 ⁽¹⁾	25	150	600	75	400	1.0	25	5.0
AR2508 ⁽¹⁾	MR2508 ⁽¹⁾	25	150	800	75	400	1.0	25	5.0
AR2510 ⁽¹⁾	MR2510 ⁽¹⁾	25	150	1000	75	400	1.0	25	5.0
AR2512 ⁽¹⁾	MR2512 ⁽¹⁾	25	150	1200	75	400	1.0	25	5.0

AR3500/MR3500 Series, 35 A, Case Type: BUTTON/MR



AR3500 ⁽¹⁾	MR3500 ⁽¹⁾	35	150	50	75	400	1.1	35	5.0
AR3501 ⁽¹⁾	MR3501 ⁽¹⁾	35	150	100	75	400	1.1	35	5.0
AR3502 ⁽¹⁾	MR3502 ⁽¹⁾	35	150	200	75	400	1.1	35	5.0
AR3504 ⁽¹⁾	MR3504 ⁽¹⁾	35	150	400	75	400	1.1	35	5.0
AR3506 ⁽¹⁾	MR3506 ⁽¹⁾	35	150	600	75	400	1.1	35	5.0
AR3508 ⁽¹⁾	MR3508 ⁽¹⁾	35	150	800	75	400	1.1	35	5.0
AR3510 ⁽¹⁾	MR3510 ⁽¹⁾	35	150	1000	75	400	1.1	35	5.0
AR3512 ⁽¹⁾	MR3512 ⁽¹⁾	35	150	1200	75	400	1.1	35	5.0

AR5000/MR5000 Series, 50 A, Case Type: BUTTON/MR



AR5000 ⁽¹⁾	MR5000 ⁽¹⁾	50	150	50	75	500	1.1	50	5.0
AR5001 ⁽¹⁾	MR5001 ⁽¹⁾	50	150	100	75	500	1.1	50	5.0
AR5002 ⁽¹⁾	MR5002 ⁽¹⁾	50	150	200	75	500	1.1	50	5.0
AR5004 ⁽¹⁾	MR5004 ⁽¹⁾	50	150	400	75	500	1.1	50	5.0
AR5006 ⁽¹⁾	MR5006 ⁽¹⁾	50	150	600	75	500	1.1	50	5.0
AR5008 ⁽¹⁾	MR5008 ⁽¹⁾	50	150	800	75	500	1.1	50	5.0
AR5010 ⁽¹⁾	MR5010 ⁽¹⁾	50	150	1000	75	500	1.1	50	5.0
AR5012 ⁽¹⁾	MR5012 ⁽¹⁾	50	150	1200	75	500	1.1	50	5.0

MR750 Series, 22 A, Case Type: D6



MR750		22	60 (T _L)	50	-	400	0.9	6.0	25
MR751		22	60 (T _L)	100	-	400	0.9	6.0	25
MR752		22	60 (T _L)	200	-	400	0.9	6.0	25
MR754		22	60 (T _L)	400	-	400	0.9	6.0	25
MR756		22	60 (T _L)	600	-	400	0.9	6.0	25
MR758		22	60 (T _L)	800	-	400	0.9	6.0	25
MR760		22	60 (T _L)	1000	-	400	0.9	6.0	25

Note:

(1) Wire leads version available in case type D6 ; Add suffix "L" e.g. AR2500L



Avalanche Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Allowable Avalanche Current (Note 1)	Max. Repetitive Peak Reverse Voltage	Min. Avalanche Breakdown Voltage @ 1 mA	Max. Avalanche Breakdown Voltage @ 1 mA	Max. Peak Forward Surge Current	Max. Reverse Current at Ta=25°C
	I _{ZSM}	V _{RRM}	V _{BR} (Min)	V _{BR} (Max)	I _{FSM}	I _R
	(A)	(V)	(V)	(V)	(A)	(μA)

R2G Series, 1 A, Case Type: D2



R2G	1.0	115	120	145	-	10
R2M	1.0	130	135	180	75	5.0
R2KN	1.0	140	150	170	-	10
R2KS	1.0	145	160	180	-	10
R2K	1.0	150	170	200	-	10

BYD13D Series, 1.4 A, Case Type: DO-41



BYD13D	1.4	200	225	-	20	1.0
BYD13G	1.4	400	450	-	20	1.0
BYD13J	1.4	600	650	-	20	1.0
BYD13K	1.4	800	900	-	20	1.0
BYD13M	1.4	1000	1100	-	20	1.0

BYD17D Series, 1.5 A, Case Type: MELF(Pastic)



BYD17D	1.5	225	20	1.05	1.0	1.0
BYD17G	1.5	450	20	1.05	1.0	1.0
BYD17J	1.5	650	20	1.05	1.0	1.0
BYD17K	1.5	900	20	1.05	1.0	1.0
BYD17M	1.5	1100	20	1.05	1.0	1.0

BYW54 Series, 2.0 A, Case Type: D2



BYW54	2.0	600	650	-	50	1.0
BYW55	2.0	800	900	-	50	1.0
BYW56	2.0	1000	1100	-	50	1.0

R2KY Series, 2.0 - 3.0 A, Case Type: D2



R2KY	2.0	120	130	155	-	10
RM25	3.0	40	50	61.5	-	5.0

BYX134PL Series, 0.05 A, Case Type: D2



BYX134PL	0.05	4000	5500	7500	-	1.0
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* For case type DO-41 ; Add suffix "G" e.g. BYX134GPL

Note : (1) 100 μs single square pulse



Avalanche Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Min. Avalanche Breakdown Voltage @ 100 μ A	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	I _{F(AV)}	@ T _{tp}	V _{RRM}	V _{BR(Min)}	I _{FSM}	V _F	@ I _F	I _R	T _{rr} ⁽¹⁾
	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(mA)	(ns)

BAX12 Series, 0.4 A, Case Type: DO-35



BAX12	0.4	25	90	120	15	1.25	0.4	0.1	50
BAX12A	0.4	25	90	120	15	1.25	0.4	0.1	50

BYV26A Series, 1 A, Case Type: DO-41



BYV26A	1.0	55	200	300	30	2.5	1.0	5.0	30
BYV26B	1.0	55	400	500	30	2.5	1.0	5.0	30
BYV26C	1.0	55	600	700	30	2.5	1.0	5.0	30
BYV26D	1.0	55	800	900	30	2.5	1.0	5.0	75
BYV26E	1.0	55	1000	1100	30	2.5	1.0	5.0	75

BYD33D Series, 1.3 A, Case Type: DO-41



BYD33D	1.3	55	200	300	20	1.3	1.0	1.0	250
BYD33G	1.3	55	400	500	20	1.3	1.0	1.0	250
BYD33J	1.3	55	600	700	20	1.3	1.0	1.0	250
BYD33K	1.3	55	800	900	20	1.3	1.0	1.0	300
BYD33M	1.3	55	1000	1100	20	1.3	1.0	1.0	300

BYV36 Series, 1.5 - 1.6 A, Case Type: DO-15



BYV36A	1.6	60	200	300	30	1.35	1.0	5.0	100
BYV36B	1.6	60	400	500	30	1.35	1.0	5.0	100
BYV36C	1.6	60	600	700	30	1.35	1.0	5.0	100
BYV36D	1.5	60	800	900	30	1.45	1.0	5.0	150
BYV36E	1.5	60	1000	1100	30	1.45	1.0	5.0	150

BYV95 Series, 1.5 A, Case Type: D2



BYV95A	1.5	55	200	300	35	1.6	3.0	5.0	250
BYV95B	1.5	55	400	500	35	1.6	3.0	5.0	250
BYV95C	1.5	55	600	700	35	1.6	3.0	5.0	250
BYV96D	1.5	55	800	900	35	1.6	3.0	5.0	300
BYV96E	1.5	55	1000	1100	35	1.6	3.0	5.0	300

BYG10D - M Series, 1.5 A, Case Type: SMA



BYG10D	1.5	85	200	-	30	1.15	1.5	1.0	4 μ s
BYG10G	1.5	85	400	-	30	1.15	1.5	1.0	4 μ s
BYG10J	1.5	85	600	-	30	1.15	1.5	1.0	4 μ s
BYG10K	1.5	85	800	-	30	1.15	1.5	1.0	4 μ s
BYG10M	1.5	85	1000	-	30	1.15	1.5	1.0	4 μ s

Note : (1) Reverse Recovery test conditions : I_F = 0.5A, I_R = 1 A, I_{rr} = 0.25 A



Avalanche Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Min. Avalanche Breakdown Voltage @ 100 μ A	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	I _{F(AV)}	@ T _{tp}	V _{RRM}	V _{BR(Min)}	I _{FSM}	V _F	@ I _F	I _R	T _{rr} ⁽¹⁾
	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(mA)	(ns)

BYG20D - J Series, 1.5 A, Case Type: SMA



BYG20D	1.5	85	200	-	30	1.4	1.5	1.0	75
BYG20G	1.5	85	400	-	30	1.4	1.5	1.0	75
BYG20J	1.5	85	600	-	30	1.4	1.5	1.0	75

BYG24D - J Series, 1.5 A, Case Type: SMA



BYG24D	1.5	95	200	-	30	1.25	1.5	1.0	140
BYG24G	1.5	95	400	-	30	1.25	1.5	1.0	140
BYG24J	1.5	95	600	-	30	1.25	1.5	1.0	140

BYD37D - M Series, 1.5 A, Case Type: MELF(Pastic)



BYD37D	1.5	105(Ttp)	200	300	20	1.3	1.0	1.0	250
BYD37G	1.5	105(Ttp)	400	500	20	1.3	1.0	1.0	250
BYD37J	1.5	105(Ttp)	600	700	20	1.3	1.0	1.0	250
BYD37K	1.5	105(Ttp)	800	900	20	1.3	1.0	1.0	300
BYD37M	1.5	105(Ttp)	1000	1100	20	1.3	1.0	1.0	300

BYD37DA - MA Series, 1.5 A, Case Type: SMA



BYD37DA	1.5	105(Ttp)	200	300	20	1.3	1.0	1.0	250
BYD37GA	1.5	105(Ttp)	400	500	20	1.3	1.0	1.0	250
BYD37JA	1.5	105(Ttp)	600	700	20	1.3	1.0	1.0	250
BYD37KA	1.5	105(Ttp)	800	900	20	1.3	1.0	1.0	300
BYD37MA	1.5	105(Ttp)	1000	1100	20	1.3	1.0	1.0	300

BYD57D - V Series, 1.0-1.2 A, Case Type: MELF(Pastic)



BYD57D	1.0	85(Ttp)	200	300	5	3.6	1.0	5.0	30
BYD57G	1.0	85(Ttp)	400	500	5	3.6	1.0	5.0	30
BYD57J	1.0	85(Ttp)	600	700	5	3.6	1.0	5.0	30
BYD57K	1.0	85(Ttp)	800	900	5	3.6	1.0	5.0	75
BYD57M	1.0	85(Ttp)	1000	1100	5	3.6	1.0	5.0	75
BYD57U	1.2	85(Ttp)	1200	1300	5	2.3	1.0	5.0	150
BYD57V	1.2	85(Ttp)	1400	1500	5	2.3	1.0	5.0	150

Note : (1) Reverse Recovery test conditions : I_F = 0.5A, I_R = 1 A, I_{rr} = 0.25 A



Avalanche Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Min. Avalanche Breakdown Voltage @ 100 μ A	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	I _{F(AV)}	@ T _{tp}	V _{RRM}	V _{BR(Min)}	I _{FSM}	V _F	@ I _F	I _R	T _{rr} ⁽¹⁾
	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(mA)	(ns)

BYD77A - G Series, 1.85 - 2 A, Case Type: MELF(Pastic)



BYD77A	2.0	105(Ttp)	50	55	25	0.98	1.0	1.0	25
BYD77B	2.0	105(Ttp)	100	110	25	0.98	1.0	1.0	25
BYD77C	2.0	105(Ttp)	150	165	25	0.98	1.0	1.0	25
BYD77D	2.0	105(Ttp)	200	220	25	0.98	1.0	1.0	25
BYD77E	1.85	105(Ttp)	250	275	25	1.05	1.0	1.0	50
BYD77F	1.85	105(Ttp)	300	330	25	1.05	1.0	1.0	50
BYD77G	1.85	105(Ttp)	400	440	25	1.05	1.0	1.0	50

BYD77AA - GA Series, 1.85 - 2 A, Case Type: SMA



BYD77AA	2.0	105(Ttp)	50	55	25	0.98	1.0	1.0	25
BYD77BA	2.0	105(Ttp)	100	110	25	0.98	1.0	1.0	25
BYD77CA	2.0	105(Ttp)	150	165	25	0.98	1.0	1.0	25
BYD77DA	2.0	105(Ttp)	200	220	25	0.98	1.0	1.0	25
BYD77EA	1.85	105(Ttp)	250	275	25	1.05	1.0	1.0	50
BYD77FA	1.85	105(Ttp)	300	330	25	1.05	1.0	1.0	50
BYD77GA	1.85	105(Ttp)	400	440	25	1.05	1.0	1.0	50

BYV27 Series, 2 A, Case Type: DO-41



BYV27-100	2.0	85	100	110	50	1.07	3.0	1.0	25
BYV27-150	2.0	85	150	165	50	1.07	3.0	1.0	25
BYV27-200	2.0	85	200	220	50	1.07	3.0	1.0	25

BYW95 Series, 3.0 A, Case Type: DO-201AD



BYW95A	3.0	55	200	300	70	1.5	5.0	5.0	250
BYW95B	3.0	55	400	500	70	1.5	5.0	5.0	250
BYW95C	3.0	55	600	700	70	1.5	5.0	5.0	250
BYW96D	3.0	55	800	900	70	1.5	5.0	5.0	300
BYW96E	3.0	55	1000	1100	70	1.5	5.0	5.0	300

Note :

(1) Reverse Recovery test conditions : I_F = 0.5A, I_R = 1 A, I_{rr} = 0.25 A



Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

1F1 Series, 1 A, Case Type: R-1



1F1		1.0	50	50	-	30	1.3	1.0	5.0	150 ⁽¹⁾
1F2		1.0	50	100	-	30	1.3	1.0	5.0	150 ⁽¹⁾
1F3		1.0	50	200	-	30	1.3	1.0	5.0	150 ⁽¹⁾
1F4		1.0	50	400	-	30	1.3	1.0	5.0	150 ⁽¹⁾
1F5		1.0	50	600	-	30	1.3	1.0	5.0	250 ⁽¹⁾
1F6		1.0	50	800	-	30	1.3	1.0	5.0	500 ⁽¹⁾
1F7		1.0	50	1000	-	30	1.3	1.0	5.0	500 ⁽¹⁾

ERA34-10/EP01C 0.1 - 0.2 A, Case Type: DO-41



ERA34-10		0.10	60	1000	-	2.0	3.0	0.1	50	150 ⁽³⁾
EP01C		0.20	25	1000	-	5.0	4.0	0.2	5.0	200 ⁽³⁾
AP01C		0.20	25	1000	-	5.0	4.0	0.2	100	200 ⁽³⁾

EU1 Series, 0.2 - 0.25 A, Case Type: DO-41



EU1Z		0.25	25	200	-	15	2.5	0.25	10	400 ⁽²⁾
EU1		0.25	25	400	-	15	2.5	0.25	10	400 ⁽²⁾
EU1A		0.25	25	600	-	15	2.5	0.25	10	400 ⁽²⁾
EU1C		0.20	25	1000	-	15	2.5	0.20	10	400 ⁽²⁾

RU1 Series, 0.2 - 0.25 A, Case Type: D2



RU1		0.25	50	400	-	15	2.5	0.25	10	400 ⁽²⁾
RU1A		0.25	50	600	-	15	2.5	0.25	10	400 ⁽²⁾
RU1B		0.25	50	800	-	15	2.5	0.25	10	400 ⁽²⁾
RU1C		0.20	50	1000	-	15	3.0	0.20	10	400 ⁽²⁾

AU01 Series, 0.5 A, Case Type: DO-41



AU01		0.5	25	400	-	15	1.7	0.5	10	400 ⁽²⁾
AU01A		0.5	25	600	-	15	1.7	0.5	10	400 ⁽²⁾
AU01Z		0.5	25	200	-	15	1.7	0.5	10	400 ⁽²⁾

ERA22-02 Series, 0.5 A, Case Type: DO-41



ERA22-02		0.5	40	200	-	10	1.5	0.5	10	400 ⁽³⁾
ERA22-04		0.5	40	400	-	10	1.5	0.5	10	400 ⁽³⁾
ERA22-06		0.5	40	600	-	10	1.5	0.5	10	400 ⁽³⁾
ERA22-08		0.5	40	800	-	10	1.5	0.5	10	400 ⁽³⁾
ERA22-10		0.5	40	1000	-	10	1.5	0.5	10	400 ⁽³⁾

ERB43-02 Series, 0.5 A, Case Type: DO-41



ERB43-02		0.5	40	200	-	10	1.2	0.5	10	400 ⁽³⁾
ERB43-04		0.5	40	400	-	10	1.2	0.5	10	400 ⁽³⁾
ERB43-06		0.5	40	600	-	10	1.2	0.5	10	400 ⁽³⁾
ERB43-08		0.5	40	800	-	10	1.2	0.5	10	400 ⁽³⁾

Notes: (1) Reverse recovery test conditions : $I_F = 0.5$ A, $I_R = 1$ A, with $I_{rr} = 0.25$ A

(2) Reverse recovery test conditions : $I_F = 10$ mA, $I_R = 10$ mA recover to 1 mA

(3) Reverse recovery test conditions : $I_F = 100$ mA, $I_R = 100$ mA

Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

TVR1 Series, 0.5 A, Case Type: DO-41



TVR1B		0.5	60	100	-	10	1.2	0.5	10	75 ⁽¹⁾	300 ⁽³⁾
TVR1G		0.5	60	400	-	10	1.2	0.5	10	75 ⁽¹⁾	300 ⁽³⁾
TVR1J		0.5	60	600	-	10	1.2	0.5	10	75 ⁽¹⁾	300 ⁽³⁾

TVR2 Series, 0.5 A, Case Type: D2



TVR2B		0.5	60	100	-	30	1.4	1.0	10	20 ⁽⁴⁾	
TVR2D		0.5	60	200	-	30	1.4	1.0	10	20 ⁽⁴⁾	
TVR2G		0.5	60	400	-	30	1.4	1.0	10	20 ⁽⁴⁾	
TVR2J		0.5	60	600	-	30	1.4	1.0	10	20 ⁽⁴⁾	

S5295B Series, 0.5 A, Case Type: DO-41



S5295B		0.5	25	100	-	30	1.5	1.0	10	1.5μs ⁽⁴⁾	
S5295G		0.5	25	400	-	30	1.5	1.0	10	1.5μs ⁽⁴⁾	
S5295J		0.5	25	600	-	30	1.5	1.0	10	1.5μs ⁽⁴⁾	

05NU41 Series, 0.5 A, Case Type: DO-41



05NU41		0.5	25	1000	-	10	3.0	0.5	100	100 ⁽⁵⁾	
05NU42		0.5	25	1000	-	10	3.0	0.5	100	100 ⁽⁵⁾	

RH1 Series, 0.6 A, Case Type: D2



RH1		0.6	50	400	-	35	1.3	0.6	5.0	4μs ⁽²⁾	
RH1A		0.6	50	600	-	35	1.3	0.6	5.0	4μs ⁽²⁾	
RH1B		0.6	50	800	-	35	1.3	0.6	5.0	4μs ⁽²⁾	
RH1C		0.6	50	1000	-	35	1.3	0.6	5.0	4μs ⁽²⁾	

ES1 Series, 0.5 - 0.7 A, Case Type: DO-41



ES1Z		0.7	25	200	-	30	2.5	0.8	10	1.5μs ⁽²⁾	
ES1		0.7	25	400	-	30	2.5	0.8	10	1.5μs ⁽²⁾	
ES1 A		0.7	25	600	-	30	2.5	0.8	10	1.5μs ⁽²⁾	
ES1F		0.5	50	1500	-	20	2.0	0.5	10	1.5μs ⁽²⁾	

AU02 Series, 0.8 A, Case Type: DO-41



AU02		0.8	25	400	-	25	1.3	0.8	10	400 ⁽³⁾	
AU02A		0.8	25	600	-	25	1.3	0.8	10	400 ⁽³⁾	
AU02Z		0.8	25	200	-	25	1.3	0.8	10	400 ⁽³⁾	

Notes :

- (1) Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, with $I_{rr} = 0.25 \text{ A}$
- (2) Reverse recovery test conditions : $I_F = 10 \text{ mA}$, $I_R = 10 \text{ mA}$ recover to 1 mA
- (3) Reverse recovery test conditions : $I_F = 100 \text{ mA}$, $I_R = 100 \text{ mA}$
- (4) Reverse recovery test conditions : $I_F = 20 \text{ mA}$, $I_R = 1 \text{ mA}$
- (5) Reverse recovery test conditions : $I_F = 1 \text{ A}$, $di/dt = -30 \text{ A/ms}$.

Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		The plastic material samples are not recognition of color.								
		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C	Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time	
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF @ IF	IR	Trr	
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

ERB38-04 Series, 0.8 A, Case Type: DO-41



ERB38-04		0.8	25	400	-	20	2.5	0.8	50	50 ⁽⁴⁾
ERB38-05		0.8	25	500	-	20	2.5	0.8	50	50 ⁽⁴⁾
ERB38-06		0.8	25	600	-	20	2.5	0.8	50	50 ⁽⁴⁾

1SR153-100 Series, 0.8 A, Case Type: DO-41



1SR153-100		0.8	55	100	-	30	1.3	0.8	10	400 ⁽³⁾	250 ⁽¹⁾
1SR153-200		0.8	55	200	-	30	1.3	0.8	10	400 ⁽³⁾	250 ⁽¹⁾
1SR153-400		0.8	55	400	-	30	1.3	0.8	10	400 ⁽³⁾	250 ⁽¹⁾

1SR124-100 Series, 1 A, Case Type: DO-41



1SR124-100		1.0	55	100	-	30	1.3	1.0	10	400 ⁽³⁾	250 ⁽¹⁾
1SR124-200		1.0	55	200	-	30	1.3	1.0	10	400 ⁽³⁾	250 ⁽¹⁾
1SR124-400		1.0	55	400	-	30	1.3	1.0	10	400 ⁽³⁾	250 ⁽¹⁾

ERB44-02 Series, 1 A, Case Type: DO-41



ERB44-02		1.0	40	200	-	30	1.1	1.0	10	400 ⁽²⁾
ERB44-04		1.0	40	400	-	30	1.1	1.0	10	400 ⁽²⁾
ERB44-06		1.0	40	600	-	30	1.1	1.0	10	400 ⁽²⁾
ERB44-08		1.0	40	800	-	30	1.1	1.0	10	400 ⁽²⁾
ERB44-10		1.0	40	1000	-	30	1.1	1.0	10	400 ⁽²⁾

EU2 Series, 1 - 1.2 A, Case Type: DO-41



EU2YX		1.2	25	70	-	25	0.9	1.2	10	200 ⁽³⁾
EU2Z		1.0	25	200	-	15	1.4	1.0	10	400 ⁽³⁾
EU2		1.0	25	400	-	15	1.4	1.0	10	400 ⁽³⁾
EU2A		1.0	25	600	-	15	1.4	1.0	10	400 ⁽³⁾

RGP10A Series, 1 A, Case Type: DO-41



RGP10A		1.0	55	50	-	30	1.3	1.0	5.0	150 ⁽¹⁾
RGP10B		1.0	55	100	-	30	1.3	1.0	5.0	150 ⁽¹⁾
RGP10D		1.0	55	200	-	30	1.3	1.0	5.0	150 ⁽¹⁾
RGP10G		1.0	55	400	-	30	1.3	1.0	5.0	150 ⁽¹⁾
RGP10J		1.0	55	600	-	30	1.3	1.0	5.0	250 ⁽¹⁾
RGP10K		1.0	55	800	-	30	1.3	1.0	5.0	500 ⁽¹⁾
RGP10M		1.0	55	1000	-	30	1.3	1.0	5.0	500 ⁽¹⁾

10ELS1 Series, 1 A, Case Type: D2



10ELS1		1.0	25	100	-	30	1.10	1.0	10	150 ⁽¹⁾
10ELS2		1.0	25	200	-	30	1.10	1.0	10	150 ⁽¹⁾
10ELS4		1.0	25	400	-	50	1.15	1.0	10	150 ⁽¹⁾
10ELS6		1.0	25	600	-	50	1.15	1.0	10	150 ⁽¹⁾

Notes: (1) Reverse recovery test conditions : I_F = 0.5 A, I_R = 1 A, with I_{rr} = 0.25 A

(2) Reverse recovery test conditions : I_F = 100 mA, I_R = 100 mA

(3) Reverse recovery test conditions : I_F = 10 mA, I_R = 10 mA recover to 1 mA

(4) Reverse recovery test conditions : I_F = 100 mA, I_R = 200 mA



Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

BA157/SRA7 Series, 1 A, Case Type: DO-41/SMA

BA157	SRA7	1.0	45	400	5.0	35	1.3	1.0	5.0	300 ⁽²⁾	150 ⁽¹⁾
BA158	SRA8	1.0	45	600	5.0	35	1.3	1.0	5.0	300 ⁽²⁾	150 ⁽¹⁾
BA159	SRA9	1.0	45	1000	5.0	35	1.3	1.0	5.0	500 ⁽²⁾	250 ⁽¹⁾

FR101/SR1A Series, 1 A, Case Type: DO-41/SMA

FR101	SR1A	1.0	55	50	5.0	35	1.3	1.0	5.0	150 ⁽¹⁾	
FR102	SR1B	1.0	55	100	5.0	35	1.3	1.0	5.0	150 ⁽¹⁾	
FR103	SR1D	1.0	55	200	5.0	35	1.3	1.0	5.0	150 ⁽¹⁾	
FR104	SR1G	1.0	55	400	5.0	35	1.3	1.0	5.0	150 ⁽¹⁾	
FR105	SR1J	1.0	55	600	5.0	35	1.3	1.0	5.0	250 ⁽¹⁾	
FR106	SR1K	1.0	55	800	5.0	35	1.3	1.0	5.0	500 ⁽¹⁾	
FR107	SR1M	1.0	55	1000	5.0	35	1.3	1.0	5.0	500 ⁽¹⁾	
FR107-STR	-	1.0	55	1000	5.0	35	1.3	1.0	5.0	250 ⁽¹⁾	

RS1 Series, 1 A, Case Type: SMA

	RS1A	1.0	90	50	-	30	1.30	1.0	5.0	150 ⁽¹⁾	
	RS1B	1.0	90	100	-	30	1.30	1.0	5.0	150 ⁽¹⁾	
	RS1D	1.0	90	200	-	30	1.30	1.0	5.0	150 ⁽¹⁾	
	RS1G	1.0	90	400	-	30	1.30	1.0	5.0	150 ⁽¹⁾	
	RS1J	1.0	90	600	-	30	1.30	1.0	5.0	250 ⁽¹⁾	
	RS1K	1.0	90	800	-	30	1.30	1.0	5.0	500 ⁽¹⁾	
	RS1M	1.0	90	1000	-	30	1.30	1.0	5.0	500 ⁽¹⁾	

1N4933/SRN3 Series, 1 A, Case Type: DO-41/SMA

1N4933	SRN3	1.0	50	50	5.0	30	1.2	1.0	5.0	150 ⁽¹⁾	
1N4934	SRN4	1.0	50	100	5.0	30	1.2	1.0	5.0	150 ⁽¹⁾	
1N4935	SRN5	1.0	50	200	5.0	30	1.2	1.0	5.0	150 ⁽¹⁾	
1N4936	SRN6	1.0	50	400	5.0	30	1.2	1.0	5.0	150 ⁽¹⁾	
1N4937	SRN7	1.0	50	600	5.0	30	1.2	1.0	5.0	150 ⁽¹⁾	

DL4933 Series, 1 A, Case Type: MELF (Plastic)

	DL4933	1.0	55	50	-	30	1.2	1.0	5.0	150 ⁽¹⁾	
	DL4934	1.0	55	100	-	30	1.2	1.0	5.0	150 ⁽¹⁾	
	DL4935	1.0	55	200	-	30	1.2	1.0	5.0	150 ⁽¹⁾	
	DL4936	1.0	55	400	-	30	1.2	1.0	5.0	150 ⁽¹⁾	
	DL4937	1.0	55	600	-	30	1.2	1.0	5.0	150 ⁽¹⁾	

RGF1A Series, 1 A, Case Type: SMA

	RGF1A	1.0	125 (T _L)	50	-	30	1.3	1.0	5.0	150 ⁽¹⁾	
	RGF1B	1.0	125 (T _L)	100	-	30	1.3	1.0	5.0	150 ⁽¹⁾	
	RGF1D	1.0	125 (T _L)	200	-	30	1.3	1.0	5.0	150 ⁽¹⁾	
	RGF1G	1.0	125 (T _L)	400	-	30	1.3	1.0	5.0	150 ⁽¹⁾	
	RGF1J	1.0	125 (T _L)	600	-	30	1.3	1.0	5.0	250 ⁽¹⁾	
	RGF1K	1.0	125 (T _L)	800	-	30	1.3	1.0	5.0	500 ⁽¹⁾	
	RGF1M	1.0	125 (T _L)	1000	-	30	1.3	1.0	5.0	500 ⁽¹⁾	

Notes :

- (1) Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, with $I_{rr} = 0.25 \text{ A}$
- (2) Reverse recovery test conditions : $I_F = 10 \text{ mA}$, $I_R = 10 \text{ mA}$ recover to 1 mA

Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV) @ Ta		VRRM	IFRM	IFSM	VF @ IF		IR	Trr
		(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)
Axial Lead	SMD									

RU2 Series, 1 - 1.5 A, Case Type: D2

RU2Z		1.0	50	200	5.0	20	1.50	1.0	10	400 ⁽²⁾
RU2		1.0	50	600	5.0	20	1.50	1.0	10	400 ⁽²⁾
RU2B		1.0	50	800	5.0	20	1.50	1.0	10	400 ⁽²⁾
RU2M		1.1	50	400	5.0	20	1.20	1.1	10	400 ⁽²⁾
RU2AM		1.1	50	600	5.0	20	1.20	1.1	10	400 ⁽²⁾
RU2YX		1.5	50	100	5.0	30	0.95	1.5	10	200 ⁽²⁾
RU20A		1.5	25	600	-	50	1.10	1.5	10	400 ⁽³⁾

RGL1A Series, 1 A, Case Type: Mini MELF (Plastic)

	RGL1A	1.0	75	50	-	25	1.30	1.0	5.0	150 ⁽¹⁾
	RGL1B	1.0	75	100	-	25	1.30	1.0	5.0	150 ⁽¹⁾
	RGL1D	1.0	75	200	-	25	1.30	1.0	5.0	150 ⁽¹⁾
	RGL1G	1.0	75	400	-	25	1.30	1.0	5.0	150 ⁽¹⁾
	RGL1J	1.0	75	600	-	25	1.30	1.0	5.0	250 ⁽¹⁾
	RGL1K	1.0	75	800	-	25	1.30	1.0	5.0	500 ⁽¹⁾
	RGL1M	1.0	75	1000	-	25	1.30	1.0	5.0	500 ⁽¹⁾

15DF4 Series, 1.3 A, Case Type: D2

15DF4		1.3	40	400	-	70	1.2	1.3	10	150 ⁽¹⁾
15DF6		1.3	40	600	-	70	1.2	1.3	10	150 ⁽¹⁾
15DF8		1.3	40	800	-	70	1.2	1.3	10	150 ⁽¹⁾

BYT52A Series, 1.4 A, Case Type: D2

BYT52A		1.4	25(T _L)	50	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52B		1.4	25(T _L)	100	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52D		1.4	25(T _L)	200	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52G		1.4	25(T _L)	400	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52J		1.4	25(T _L)	600	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52K		1.4	25(T _L)	800	-	50	1.3	1.0	10	200 ⁽¹⁾
BYT52M		1.4	25(T _L)	1000	-	50	1.3	1.0	10	200 ⁽¹⁾

RGP15A Series, 1.5 A, Case Type: D2

RGP15A		1.5	55	50	-	50	1.3	1.5	5.0	150 ⁽¹⁾
RGP15B		1.5	55	100	-	50	1.3	1.5	5.0	150 ⁽¹⁾
RGP15D		1.5	55	200	-	50	1.3	1.5	5.0	150 ⁽¹⁾
RGP15G		1.5	55	400	-	50	1.3	1.5	5.0	150 ⁽¹⁾
RGP15J		1.5	55	600	-	50	1.3	1.5	5.0	250 ⁽¹⁾
RGP15K		1.5	55	800	-	50	1.3	1.5	5.0	500 ⁽¹⁾
RGP15M		1.5	55	1000	-	50	1.3	1.5	5.0	500 ⁽¹⁾

FR151/SROA Series, 1.5 A, Case Type: DO-41/SMA

FR151	SROA	1.5	55	50	5.0	60	1.3	1.5	5.0	150 ⁽¹⁾
FR152	SROB	1.5	55	100	5.0	60	1.3	1.5	5.0	150 ⁽¹⁾
FR153	SROD	1.5	55	200	5.0	60	1.3	1.5	5.0	150 ⁽¹⁾
FR154	SROG	1.5	55	400	5.0	60	1.3	1.5	5.0	150 ⁽¹⁾
FR155	SROJ	1.5	55	600	5.0	60	1.3	1.5	5.0	250 ⁽¹⁾
FR156	SROK	1.5	55	800	5.0	60	1.3	1.5	5.0	500 ⁽¹⁾
FR157	SROM	1.5	55	1000	5.0	60	1.3	1.5	5.0	500 ⁽¹⁾
FR157-STR	-	1.5	55	1000	5.0	60	1.3	1.5	5.0	250 ⁽¹⁾

Notes: (1) Reverse recovery test conditions : I_F = 0.5 A, I_R = 1 A, with I_{rr} = 0.25 A

(2) Reverse recovery test conditions : I_F = 10 mA, I_R = 10 mA recover to 1 mA

(3) Reverse recovery test conditions : I_F = 100 mA, I_R = 100 mA

Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current	Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C	Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	IF(AV) @ Ta	VRRM	IFRM	IFSM	VF @ IF	IR	Trr
Axial Lead	SMD	(A) (°C)	(V)	(A)	(A)	(V) (A)	(μA) (ns)

1R5J Series, 1.5 A, Case Type: D2



1R5JH45		1.5	25	600	-	50	1.2	1.5	100	200 ⁽⁴⁾
1R5JU41		1.5	25	600	-	40	2.0	2.0	100	100 ⁽⁴⁾

ERD28-04 Series, 1.5 A, Case Type: D2A



ERD28-04		1.5	25	400	-	70	1.1	1.5	10	400 ⁽³⁾
ERD28-06		1.5	25	600	-	70	1.1	1.5	10	400 ⁽³⁾
ERD28-08		1.5	25	800	-	70	1.1	1.5	10	400 ⁽³⁾

RU3 Series, 1.5 - 2.0 A, Case Type: D2A



RU3		1.5	50	400	-	30	1.5	1.5	10	400 ⁽²⁾
RU3A		1.5	50	600	-	30	1.5	1.5	10	400 ⁽²⁾
RU3B		1.5	50	800	-	30	1.5	1.5	10	400 ⁽²⁾
RU3C		1.5	50	1000	-	30	2.0	1.5	10	400 ⁽²⁾
RU3M		1.5	50	400	-	30	1.1	1.5	10	400 ⁽²⁾
RU3AM		1.5	50	600	-	30	1.1	1.5	10	400 ⁽²⁾
RU3YX		2.0	25	100	-	50	0.95	2.0	10	200 ⁽²⁾

RU4 Series, 1.5 - 2.5 A, Case Type: DO-201AD



RU4		1.5	50	400	-	50	1.5	3.0	10	400 ⁽²⁾
RU4A		1.5	50	600	-	50	1.5	3.0	10	400 ⁽²⁾
RU4B		1.5	50	800	-	50	1.6	3.0	10	400 ⁽²⁾
RU4C		1.5	50	1000	-	50	1.6	3.0	50	400 ⁽²⁾
RU4Y		2.0	60	100	-	70	1.3	3.5	10	400 ⁽²⁾
RU4Z		2.0	60	200	-	70	1.3	3.5	10	400 ⁽²⁾
RU4M		2.0	50	400	-	50	1.3	3.5	10	400 ⁽³⁾
RU4AM		2.0	50	600	-	50	1.3	3.5	10	400 ⁽³⁾
RU4YX		2.2	50	100	-	100	1.3	3.5	10	200 ⁽³⁾
RU4DS		2.5	60	1300	-	50	1.8	3.0	50	400 ⁽³⁾

BYW32 Series, 2 A, Case Type: D2



BYW32		2.0	55	200	-	40	1.2	2.0	5.0	200 ⁽¹⁾
BYW33		2.0	55	300	-	40	1.2	2.0	5.0	200 ⁽¹⁾
BYW34		2.0	55	400	-	40	1.2	2.0	5.0	200 ⁽¹⁾
BYW35		2.0	55	500	-	40	1.2	2.0	5.0	200 ⁽¹⁾
BYW36		2.0	55	600	-	40	1.2	2.0	5.0	200 ⁽¹⁾

Notes :

- (1) Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, with $I_{rr} = 0.25 \text{ A}$
- (2) Reverse recovery test conditions : $I_F = 10 \text{ mA}$, $I_R = 10 \text{ mA}$ recover to 1 mA
- (3) Reverse recovery test conditions : $I_F = 100 \text{ mA}$, $I_R = 100 \text{ mA}$
- (4) Reverse recovery test conditions : $I_F = 1 \text{ A}$, $di/dt = -30 \text{ A/ms}$



Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

BY296/SR26 Series, 2 A, Case Type: DO-201AD/SMB



BY296	SR26	2.0	50	100	10	70	1.3	2.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY297	SR27	2.0	50	200	10	70	1.3	2.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY298	SR28	2.0	50	400	10	70	1.3	2.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY299	SR29	2.0	50	800	10	70	1.3	2.0	10	500 ⁽²⁾	250 ⁽¹⁾

FR201/SR2A Series, 2 A, Case Type: D2/SMB



FR201	SR2A	2.0	75	50	15	75	1.3	2.0	10	150 ⁽¹⁾
FR202	SR2B	2.0	75	100	15	75	1.3	2.0	10	150 ⁽¹⁾
FR203	SR2D	2.0	75	200	15	75	1.3	2.0	10	150 ⁽¹⁾
FR204	SR2G	2.0	75	400	15	75	1.3	2.0	10	150 ⁽¹⁾
FR205	SR2J	2.0	75	600	15	75	1.3	2.0	10	250 ⁽¹⁾
FR206	SR2K	2.0	75	800	15	75	1.3	2.0	10	500 ⁽¹⁾
FR207	SR2M	2.0	75	1000	15	75	1.3	2.0	10	500 ⁽¹⁾
FR207-STR	-	2.0	75	1000	15	75	1.3	2.0	10	250 ⁽¹⁾

RGP20A-J Series, 2 A, Case Type: D2A



RGP20A		2.0	55	50	-	80	1.3	2.0	5.0	150 ⁽¹⁾
RGP20B		2.0	55	100	-	80	1.3	2.0	5.0	150 ⁽¹⁾
RGP20D		2.0	55	200	-	80	1.3	2.0	5.0	150 ⁽¹⁾
RGP20G		2.0	55	400	-	80	1.3	2.0	5.0	150 ⁽¹⁾
RGP20J		2.0	55	600	-	80	1.3	2.0	5.0	250 ⁽¹⁾

FR251/SRTA Series, 2.5 A, Case Type: D2A/SMB



FR251	SRTA	2.5	75	50	15	100	1.3	2.5	10	150 ⁽¹⁾
FR252	SRTB	2.5	75	100	15	100	1.3	2.5	10	150 ⁽¹⁾
FR253	SRTD	2.5	75	200	15	100	1.3	2.5	10	150 ⁽¹⁾
FR254	SRTG	2.5	75	400	15	100	1.3	2.5	10	150 ⁽¹⁾
FR255	SRTJ	2.5	75	600	15	100	1.3	2.5	10	250 ⁽¹⁾
FR256	SRTK	2.5	75	800	15	100	1.3	2.5	10	500 ⁽¹⁾
FR257	SRTM	2.5	75	1000	15	100	1.3	2.5	10	500 ⁽¹⁾
FR257-STR	-	2.5	75	1000	15	100	1.3	2.5	10	250 ⁽¹⁾

BY228/SR36 Series, 3 A, Case Type: DO-201AD/SMC



BY396	SR36	3.0	50	100	15	100	1.25	3.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY397	SR37	3.0	50	200	15	100	1.25	3.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY398	SR38	3.0	50	400	15	100	1.25	3.0	10	500 ⁽²⁾	250 ⁽¹⁾
BY399	SR39	3.0	50	800	15	100	1.25	3.0	10	500 ⁽²⁾	250 ⁽¹⁾

Notes :

- (1) Reverse recovery test conditions : I_F = 0.5 A, I_R = 1 A, with I_{rr} = 0.25 A
- (2) Reverse recovery test conditions : I_F = 10 mA, I_R = 10 mA recover to 1 mA

Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current	Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C	Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	IF(AV) @ Ta	VRRM	IFRM	IFSM	VF @ IF	IR	Trr
Axial Lead	SMD	(A) (°C)	(V)	(A)	(A)	(V) (A)	(μA) (ns)

BYT56A Series, 3 A, Case Type: DO-201AD



BYT56A		3.0	50	50	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56B		3.0	50	100	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56D		3.0	50	200	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56G		3.0	50	400	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56J		3.0	50	600	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56K		3.0	50	800	-	80	1.4	3.0	5.0	100 ⁽¹⁾
BYT56M		3.0	50	1000	-	80	1.4	3.0	5.0	100 ⁽¹⁾

FR301/SR3A Series, 3 A, Case Type: DO-201AD/SMC



FR301	SR3A	3.0	55	50	20	200	1.3	3.0	10	150 ⁽¹⁾
FR302	SR3B	3.0	55	100	20	200	1.3	3.0	10	150 ⁽¹⁾
FR303	SR3D	3.0	55	200	20	200	1.3	3.0	10	150 ⁽¹⁾
FR304	SR3G	3.0	55	400	20	200	1.3	3.0	10	150 ⁽¹⁾
FR305	SR3J	3.0	55	600	20	200	1.3	3.0	10	250 ⁽¹⁾
FR306	SR3K	3.0	55	800	20	200	1.3	3.0	10	500 ⁽¹⁾
FR307	SR3M	3.0	55	1000	20	200	1.3	3.0	10	500 ⁽¹⁾
FR307-STR		3.0	55	1000	20	200	1.3	3.0	10	250 ⁽¹⁾

RS3A Series, 3 A, Case Type: SMC



	RS3A	3.0	55	50	-	100	1.3	3.0	10	150 ⁽¹⁾
	RS3B	3.0	55	100	-	100	1.3	3.0	10	150 ⁽¹⁾
	RS3D	3.0	55	200	-	100	1.3	3.0	10	150 ⁽¹⁾
	RS3G	3.0	55	400	-	100	1.3	3.0	10	150 ⁽¹⁾
	RS3J	3.0	55	600	-	100	1.3	3.0	10	250 ⁽¹⁾
	RS3K	3.0	55	800	-	100	1.3	3.0	10	500 ⁽¹⁾

MR850/SRR0 Series, 3 A, Case Type: DO-201AD/SMC



MR850	SRR0	3.0	90	50	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾
MR851	SRR1	3.0	90	100	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾
MR852	SRR2	3.0	90	200	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾
MR854	SRR4	3.0	90	400	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾
MR856	SRR6	3.0	90	600	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾
MR858	-	3.0	90	800	15	100	1.25	3.0	10	200 ⁽²⁾	150 ⁽¹⁾

3JH45 Series, 3 A, Case Type: DO-201AD



3JH45	-	3.0	25	600	-	77	1.2	3.0	100	200 ⁽⁴⁾
30DF6	-	3.0	40	600	-	90	1.25	3.0	10	200 ⁽³⁾

Notes :

- (1) Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, with $I_{rr} = 0.25 \text{ A}$
- (2) Reverse recovery test conditions : $I_F = 1 \text{ A}$, to $V_R = 30 \text{ V}$
- (3) Reverse Recovery test conditions : $I_F = 1 \text{ A}$, to $V_R = 30 \text{ V}$
- (4) Reverse Recovery test conditions : $I_F = 1 \text{ A}$, $di/dt = -30 \text{ A/ms}$



Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current	Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C	Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	IF(AV) @ Ta	VRRM	IFRM	IFSM	VF @ IF	IR	Trr
Axial Lead	SMD	(A) (°C)	(V)	(A)	(A)	(V) (A)	(μA) (ns)

RGP30 Series, 3 A, Case Type: DO-201AD



RGP30A		3.0	55	50	-	125	1.30	3.0	5.0	150 ⁽¹⁾
RGP30B		3.0	55	100	-	125	1.30	3.0	5.0	150 ⁽¹⁾
RGP30D		3.0	55	200	-	125	1.30	3.0	5.0	150 ⁽¹⁾
RGP30G		3.0	55	400	-	125	1.30	3.0	5.0	150 ⁽¹⁾
RGP30J		3.0	55	600	-	125	1.30	3.0	5.0	150 ⁽¹⁾
RGP30K		3.0	55	800	-	125	1.30	3.0	5.0	250 ⁽¹⁾
RGP30M		3.0	55	1000	-	125	1.30	3.0	5.0	500 ⁽¹⁾

1N5415 Series, 3 A, Case Type: D2A



1N5415		3.0	55	50	-	80	1.1	3.0	1.0	150 ⁽¹⁾
1N5416		3.0	55	100	-	80	1.1	3.0	1.0	150 ⁽¹⁾
1N5417		3.0	55	200	-	80	1.1	3.0	1.0	150 ⁽¹⁾
1N5418		3.0	55	400	-	80	1.1	3.0	1.0	150 ⁽¹⁾
1N5419		3.0	55	500	-	80	1.1	3.0	1.0	250 ⁽¹⁾
1N5420		3.0	55	600	-	80	1.1	3.0	1.0	400 ⁽¹⁾

FR501 Series, 5 A, Case Type: DO-201AD



FR501	-	5.0	75	50	-	300	1.3	5.0	10	150 ⁽¹⁾
FR502	-	5.0	75	100	-	300	1.3	5.0	10	150 ⁽¹⁾
FR503	-	5.0	75	200	-	300	1.3	5.0	10	150 ⁽¹⁾
FR504	-	5.0	75	400	-	300	1.3	5.0	10	150 ⁽¹⁾
FR505	-	5.0	75	600	-	300	1.3	5.0	10	250 ⁽¹⁾
FR506	-	5.0	75	800	-	300	1.3	5.0	10	500 ⁽¹⁾
FR507	-	5.0	75	1000	-	300	1.3	5.0	10	500 ⁽¹⁾

FR601 Series, 6 A, Case Type: D6



FR601	-	6.0	55	50	-	200	1.3	6.0	10	150 ⁽¹⁾
FR602	-	6.0	55	100	-	200	1.3	6.0	10	150 ⁽¹⁾
FR603	-	6.0	55	200	-	200	1.3	6.0	10	150 ⁽¹⁾
FR604	-	6.0	55	400	-	200	1.3	6.0	10	150 ⁽¹⁾
FR605	-	6.0	55	600	-	200	1.3	6.0	10	250 ⁽¹⁾
FR606	-	6.0	55	800	-	200	1.3	6.0	10	500 ⁽¹⁾
FR607	-	6.0	55	1000	-	200	1.3	6.0	10	500 ⁽¹⁾

FR801 Series, 8 A, Case Type: D6



FR801	-	8.0	100 (Tc)	50	-	150	1.3	8.0	10	150 ⁽¹⁾
FR802	-	8.0	100 (Tc)	100	-	150	1.3	8.0	10	150 ⁽¹⁾
FR803	-	8.0	100 (Tc)	200	-	150	1.3	8.0	10	150 ⁽¹⁾
FR804	-	8.0	100 (Tc)	400	-	150	1.3	8.0	10	150 ⁽¹⁾
FR805	-	8.0	100 (Tc)	600	-	150	1.3	8.0	10	250 ⁽¹⁾

Note :

(1) Reverse Recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, with $I_{rr} = 0.25 \text{ A}$



Fast Recovery Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		I _{F(AV)}	@ Ta	V _{RRM}	I _{FRM}	I _{FSM}	V _F	@ I _F	I _R	T _{rr}
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

ESAC25 Series, 10 A, Case Type: TO - 220AB



ESAC25-02C	-	10	106 (Tc)	200	-	70	1.3	2.5	10	400 ⁽²⁾
ESAC25-02D	-	10	106 (Tc)	200	-	70	1.3	2.5	10	400 ⁽²⁾
ESAC25-02N	-	10	106 (Tc)	200	-	70	1.3	2.5	10	400 ⁽²⁾
ESAC25-04C	-	10	106 (Tc)	400	-	70	1.3	2.5	10	400 ⁽²⁾
ESAC25-04D	-	10	106 (Tc)	400	-	70	1.3	2.5	10	400 ⁽²⁾
ESAC25-04N	-	10	106 (Tc)	400	-	70	1.3	2.5	10	400 ⁽²⁾

F1200A Series, 12 A, Case Type: D6



F1200A		12	50	50	80	390	0.85	5.0	25	200 ⁽¹⁾
F1200D		12	50	200	80	390	0.85	5.0	25	200 ⁽¹⁾

FTB2000AA /FTB2000KG, 20 A, Case Type: D2PAK



	FTB2000KA/AA ⁽³⁾	20	100 (Tc)	50	80	390	0.96	20.0	25	200 ⁽¹⁾
	FTB2000KB/AB ⁽³⁾	20	100 (Tc)	100	80	390	0.96	20.0	25	200 ⁽¹⁾
	FTB2000KD/AD ⁽³⁾	20	100 (Tc)	200	80	390	0.96	20.0	25	200 ⁽¹⁾
	FTB2000KG/AG ⁽³⁾	20	100 (Tc)	400	80	390	0.96	20.0	25	200 ⁽¹⁾

Notes :

- (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, with I_{rr} = 0.25 A
- (2) Reverse Recovery test conditions : I_F = 100 mA, I_R = 100 mA
- (3) K (Standard) is p/n FTB2000KA, FTB2000KB, ..., KG, A (Reverse) is p/n FTB2000AA, FTB2000AB, ..., AG



Fast Recovery Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr ⁽¹⁾
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

LMR1A Series, 1 A, Case Type: M1A



LMR1A		1.0	50	50	-	30	1.0	1.0	5.0	150
LMR1B		1.0	50	100	-	30	1.0	1.0	5.0	150
LMR1D		1.0	50	200	-	30	1.0	1.0	5.0	150
LMR1G		1.0	50	400	-	30	1.0	1.0	5.0	150
LMR1J		1.0	50	600	-	30	1.0	1.0	5.0	250
LMR1K		1.0	50	800	-	30	1.0	1.0	5.0	500
LMR1M		1.0	50	1000	-	30	1.0	1.0	5.0	500

FR101G/GR1A Series, 1 A, Case Type: DO-41/SMA



FR101G	GR1A	1.0	55	50	5.0	30	1.3	1.0	5.0	150
FR102G	GR1B	1.0	55	100	5.0	30	1.3	1.0	5.0	150
FR103G	GR1D	1.0	55	200	5.0	30	1.3	1.0	5.0	150
FR104G	GR1G	1.0	55	400	5.0	30	1.3	1.0	5.0	150
FR105G	GR1J	1.0	55	600	5.0	30	1.3	1.0	5.0	250
FR106G	GR1K	1.0	55	800	5.0	30	1.3	1.0	5.0	500
FR107G	GR1M	1.0	55	1000	5.0	30	1.3	1.0	5.0	500
FR107G-STR	-	1.0	55	1000	5.0	30	1.3	1.0	5.0	250

FR151G Series, 1.5 A, Case Type: DO-41



FR151G		1.5	55	50	-	60	1.4	1.5	5.0	150
FR152G		1.5	55	100	-	60	1.4	1.5	5.0	150
FR153G		1.5	55	200	-	60	1.4	1.5	5.0	150
FR154G		1.5	55	400	-	60	1.4	1.5	5.0	150
FR155G		1.5	55	600	-	60	1.4	1.5	5.0	250
FR156G		1.5	55	800	-	60	1.4	1.5	5.0	500
FR157G		1.5	55	1000	-	60	1.4	1.5	5.0	500
FR157G-STR		1.5	55	1000	-	60	1.4	1.5	5.0	250

1N4933G/GRN3 Series, 1 A, Case Type: DO-41/SMA



1N4933G	GRN3	1.0	50	50	5.0	30	1.2	1.0	5.0	150
1N4934G	GRN4	1.0	50	100	5.0	30	1.2	1.0	5.0	150
1N4935G	GRN5	1.0	50	200	5.0	30	1.2	1.0	5.0	150
1N4936G	GRN6	1.0	50	400	5.0	30	1.2	1.0	5.0	150
1N4937G	GRN7	1.0	50	600	5.0	30	1.2	1.0	5.0	150

Note :

(1) Reverse Recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$



Fast Recovery Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr ⁽¹⁾
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

FR201G/GR2A Series, 2 A, Case Type: D2/SMB



FR201G	GR2A	2.0	75	50	10	75	1.3	2.0	10	150
FR202G	GR2B	2.0	75	100	10	75	1.3	2.0	10	150
FR203G	GR2D	2.0	75	200	10	75	1.3	2.0	10	150
FR204G	GR2G	2.0	75	400	10	75	1.3	2.0	10	150
FR205G	GR2J	2.0	75	600	10	75	1.3	2.0	10	250
FR206G	GR2K	2.0	75	800	10	75	1.3	2.0	10	500
FR207G	GR2M	2.0	75	1000	10	75	1.3	2.0	10	500
FR207G-STR	-	2.0	75	1000	10	75	1.3	2.0	10	250

FR251G Series, 2.5 A, Case Type: D2A



FR251G		2.5	75	50	-	80	1.3	2.5	10	150
FR252G		2.5	75	100	-	80	1.3	2.5	10	150
FR253G		2.5	75	200	-	80	1.3	2.5	10	150
FR254G		2.5	75	400	-	80	1.3	2.5	10	150
FR255G		2.5	75	600	-	80	1.3	2.5	10	250
FR256G		2.5	75	800	-	80	1.3	2.5	10	500
FR257G		2.5	75	1000	-	80	1.3	2.5	10	500
FR257G-STR		2.5	75	1000	-	80	1.3	2.5	10	250

FR301G/GR3A Series, 3 A, Case Type: DO-201AD/SMC



FR301G	GR3A	3.0	55	50	15	100	1.3	3.0	5.0	150
FR302G	GR3B	3.0	55	100	15	100	1.3	3.0	5.0	150
FR303G	GR3D	3.0	55	200	15	100	1.3	3.0	5.0	150
FR304G	GR3G	3.0	55	400	15	100	1.3	3.0	5.0	150
FR305G	GR3J	3.0	55	600	15	100	1.3	3.0	5.0	250
FR306G	GR3K	3.0	55	800	15	100	1.3	3.0	5.0	500
FR307G	GR3M	3.0	55	1000	15	100	1.3	3.0	5.0	500
FR307G-STR	-	3.0	55	1000	15	100	1.3	3.0	5.0	250

SMC1200D/SMC2000D, 12-20 A, Case Type: SMC



	SMC1200D	12	50	200	-	390	0.85	5.0	25	200
	SMC2000D	20	55	200	-	390	0.84	5.0	25	200

Note :

(1) Reverse Recovery test conditions : $I_F = 0.5$ A, $I_R = 1$ A, $I_{rr} = 0.25$ A



High Efficient Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr ⁽¹⁾
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

1H1G Series, 1 A, Case Type: M1A

1H1G		1.0	25	50	-	25	1.2	1.0	5.0	50
1H2G		1.0	25	100	-	25	1.2	1.0	5.0	50
1H3G		1.0	25	200	-	25	1.2	1.0	5.0	50
1H4G		1.0	25	300	-	25	1.2	1.0	5.0	50
1H5G		1.0	25	400	-	25	1.2	1.0	5.0	50
1H6G		1.0	25	600	-	25	1.8	1.0	5.0	75
1H7G		1.0	25	800	-	25	1.8	1.0	5.0	75
1H8G		1.0	25	1000	-	25	1.8	1.0	5.0	75

RD2A, 1.2 A, Case Type: D2A

RD2A		1.2	25	600	-	30	1.55	1.2	50	50
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HER101/SE1A Series, 1 A, Case Type: DO-41/SMA

HER101	SE1A	1.0	55	50	5.0	30	1.1	1.0	5.0	50
HER102	SE1B	1.0	55	100	5.0	30	1.1	1.0	5.0	50
HER103	SE1D	1.0	55	200	5.0	30	1.1	1.0	5.0	50
HER104	SE1E	1.0	55	300	5.0	30	1.1	1.0	5.0	50
HER105	SE1G	1.0	55	400	5.0	30	1.1	1.0	5.0	50
HER106	SE1J	1.0	55	600	5.0	30	1.7	1.0	5.0	75
HER107	SE1K	1.0	55	800	5.0	30	1.7	1.0	5.0	75
HER108	SE1M	1.0	55	1000	5.0	30	2.2	1.0	5.0	75

HER151/SEOA Series, 1.5 A, Case Type: DO-41/SMA

HER151	SEOA	1.5	55	50	5.0	60	1.1	1.5	5.0	50
HER152	SEOB	1.5	55	100	5.0	60	1.1	1.5	5.0	50
HER153	SEOD	1.5	55	200	5.0	60	1.1	1.5	5.0	50
HER154	SEOE	1.5	55	300	5.0	60	1.1	1.5	5.0	50
HER155	SEOG	1.5	55	400	5.0	60	1.1	1.5	5.0	50
HER156	SEOJ	1.5	55	600	5.0	60	1.7	1.5	5.0	75
HER157	SEOK	1.5	55	800	5.0	60	1.7	1.5	5.0	75
HER158	SEOM	1.5	55	1000	5.0	60	1.7	1.5	5.0	75

HER201/SE2A Series, 2 A, Case Type: D2/SMB

HER201	SE2A	2.0	55	50	10	75	1.1	2.0	10	50
HER202	SE2B	2.0	55	100	10	75	1.1	2.0	10	50
HER203	SE2D	2.0	55	200	10	75	1.1	2.0	10	50
HER204	SE2E	2.0	55	300	10	75	1.1	2.0	10	50
HER205	SE2G	2.0	55	400	10	75	1.1	2.0	10	50
HER206	SE2J	2.0	55	600	10	75	1.7	2.0	10	75
HER207	SE2K	2.0	55	800	10	75	1.7	2.0	10	75
HER208	SE2M	2.0	55	1000	10	75	1.7	2.0	10	75

Note : (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A



High Efficient Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		I _{F(AV)} @ Ta		V _{RRM}	I _{FRM}	I _{FSM}	V _F @ I _F		I _R	T _{rr} ⁽¹⁾
		(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

HER251/SETA Series, 2.5 A, Case Type: D2A/SMB



HER251	SETA	2.5	55	50	10	100	1.1	2.5	10	50
HER252	SETB	2.5	55	100	10	100	1.1	2.5	10	50
HER253	SETD	2.5	55	200	10	100	1.1	2.5	10	50
HER254	SETE	2.5	55	300	10	100	1.1	2.5	10	50
HER255	SETG	2.5	55	400	10	100	1.1	2.5	10	50
HER256	SETJ	2.5	55	600	10	100	1.7	2.5	10	75
HER257	SETK	2.5	55	800	10	100	1.7	2.5	10	75
HER258	SETM	2.5	55	1000	10	100	1.7	2.5	10	75

HER301/SE3A Series, 3 A, Case Type: DO-201AD/SMC



HER301	SE3A	3.0	55	50	15	150	1.1	3.0	10	50
HER302	SE3B	3.0	55	100	15	150	1.1	3.0	10	50
HER303	SE3D	3.0	55	200	15	150	1.1	3.0	10	50
HER304	SE3E	3.0	55	300	15	150	1.1	3.0	10	50
HER305	SE3G	3.0	55	400	15	150	1.1	3.0	10	50
HER306	SE3J	3.0	55	600	15	150	1.7	3.0	10	75
HER307	SE3K	3.0	55	800	15	150	1.7	3.0	10	75
HER308	SE3M	3.0	55	1000	15	150	1.7	3.0	10	75

HER501/SE5A Series, 5 A, Case Type: DO-201AD/SMC



HER501	SE5A	5.0	55	50	25	200	1.1	5.0	10	50
HER502	SE5B	5.0	55	100	25	200	1.1	5.0	10	50
HER503	SE5D	5.0	55	200	25	200	1.1	5.0	10	50
HER504	SE5E	5.0	55	300	25	200	1.1	5.0	10	50
HER505	SE5G	5.0	55	400	25	200	1.1	5.0	10	50
HER506	SE5J	5.0	55	600	25	200	1.7	5.0	10	75
HER507	SE5K	5.0	55	800	25	200	1.7	5.0	10	75
HER508	SE5M	5.0	55	1000	25	200	1.7	5.0	10	75

HER601 Series, 6 A, Case Type: D6



HER601		6.0	55	50	25	200	1.1	6.0	10	50
HER602		6.0	55	100	25	200	1.1	6.0	10	50
HER603		6.0	55	200	25	200	1.1	6.0	10	50
HER604		6.0	55	300	25	200	1.1	6.0	10	50
HER605		6.0	55	400	25	200	1.1	6.0	10	50
HER606		6.0	55	600	25	200	1.7	6.0	10	75
HER607		6.0	55	800	25	200	1.7	6.0	10	75
HER608		6.0	55	1000	25	200	1.7	6.0	10	75

Note : (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

AG01 Series, 0.5-1 A, Case Type: DO-41



AG01Y		1.0	25	70	-	25	1.2	1.0	100	100 ⁽²⁾
AG01Z		0.7	25	200	-	15	1.8	0.7	100	100 ⁽²⁾
AG01		0.7	25	400	-	15	1.8	0.7	100	100 ⁽²⁾
AG01A		0.5	25	600	-	15	1.8	0.5	100	100 ⁽²⁾

EG01 Series, 0.5 - 1 A, Case Type: DO-41



EG01Y		1.0	50	70	-	30	1.2	1.0	100	100 ⁽²⁾
EG01Z		0.7	50	200	-	15	1.9	0.7	50	100 ⁽²⁾
EG01		0.7	50	400	-	15	2.0	0.7	50	100 ⁽²⁾
EG01A		0.5	25	600	-	10	2.0	0.5	100	100 ⁽²⁾
EG01C		0.5	25	1000	-	10	3.3	0.5	50	100 ⁽²⁾

EG1 Series, 0.6 - 1 A, Case Type: DO-41



EG1Y		1.1	50	70	-	30	1.2	1.1	100	100 ⁽²⁾
EG1Z		0.8	50	200	-	15	1.7	0.8	50	100 ⁽²⁾
EG1		0.8	50	400	-	15	1.8	0.8	50	100 ⁽²⁾
EG1A		0.6	25	600	-	10	2.0	0.6	100	100 ⁽²⁾

ERA32-01 Series, 1 A, Case Type: DO-41



ERA32-01		1.0	40	100	-	40	0.92	1.0	10	100 ⁽²⁾
ERA32-02		1.0	40	200	-	40	0.92	1.0	10	100 ⁽²⁾

11DF1 Series, 1 A, Case Type: DO-41



11DF1		1.0	63	100	-	30	0.98	1.0	10	35 ⁽¹⁾
11DF2		1.0	63	200	-	30	0.98	1.0	10	35 ⁽¹⁾
11DF3		1.0	57	300	-	30	1.25	1.0	10	35 ⁽¹⁾
11DF4		1.0	57	400	-	30	1.25	1.0	10	35 ⁽¹⁾

MUR120 Series, 1 A, Case Type: DO-41



MUR120		1.0	25	200	-	35	0.875	1.0	2.0	25 ⁽¹⁾
MUR140		1.0	25	400	-	35	1.25	1.0	5.0	50 ⁽¹⁾
MUR160		1.0	25	600	-	35	1.25	1.0	5.0	50 ⁽¹⁾

RG10 Series, 1 - 1.5 A, Case Type: D2



RG10Y		1.5	55	70	5.0	50	1.1	1.5	500	35 ⁽¹⁾
RG10		1.2	55	400	5.0	50	1.8	1.5	500	35 ⁽¹⁾
RG10A		1.0	55	600	5.0	50	2.0	1.0	500	35 ⁽¹⁾

Notes: (1) Reverse Recovery test conditions : $I_F = 0.5$ A, $I_R = 1$ A, $I_{rr} = 0.25$ A

(2) Reverse Recovery test conditions : $I_F = 100$ mA, $I_R = 100$ mA



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

UF1001 Series, 1 A, Case Type: DO-41



UF1001		1.0	55	50	-	30	1.10	1.0	5.0	50 ⁽¹⁾
UF1002		1.0	55	100	-	30	1.10	1.0	5.0	50 ⁽¹⁾
UF1003		1.0	55	200	-	30	1.10	1.0	5.0	50 ⁽¹⁾
UF1004		1.0	55	400	-	30	1.10	1.0	5.0	50 ⁽¹⁾
UF1005		1.1	55	600	-	30	1.70	1.0	5.0	75 ⁽¹⁾
UF1006		1.0	55	800	-	30	1.70	1.0	5.0	75 ⁽¹⁾
UF1007		1.0	55	1000	-	30	1.70	1.0	5.0	75 ⁽¹⁾

UF4001 Series, 1 A, Case Type: DO-41



UF4001		1.0	55	50	-	30	1.00	1.0	10	50 ⁽¹⁾
UF4002		1.0	55	100	-	30	1.00	1.0	10	50 ⁽¹⁾
UF4003		1.0	55	200	-	30	1.00	1.0	10	50 ⁽¹⁾
UF4004		1.0	55	400	-	30	1.00	1.0	10	50 ⁽¹⁾
UF4005		1.0	55	600	-	30	1.70	1.0	10	75 ⁽¹⁾
UF4006		1.0	55	800	-	30	1.70	1.0	10	75 ⁽¹⁾
UF4007		1.0	55	1000	-	30	1.70	1.0	10	75 ⁽¹⁾

SF11/SS1A Series, 1 A, Case Type: DO-41/SMA



SF11	SS1A	1.0	55	50	5.0	30	0.95	1.0	5.0	35 ⁽¹⁾
SF12	SS1B	1.0	55	100	5.0	30	0.95	1.0	5.0	35 ⁽¹⁾
SF13	SS1C	1.0	55	150	5.0	30	0.95	1.0	5.0	35 ⁽¹⁾
SF14	SS1D	1.0	55	200	5.0	30	0.95	1.0	5.0	35 ⁽¹⁾
SF15	SS1E	1.0	55	300	5.0	30	1.70	1.0	5.0	35 ⁽¹⁾
SF16	SS1G	1.0	55	400	5.0	30	1.70	1.0	5.0	35 ⁽¹⁾
SF17	SS1J	1.0	55	600	5.0	30	1.70	1.0	5.0	35 ⁽¹⁾
SF18	SS1K	1.0	55	800	5.0	30	4.00	1.0	10	35 ⁽¹⁾
SF19	SS1M	1.0	55	1000	5.0	30	4.00	1.0	10	35 ⁽¹⁾

ES1A Series, 1 A, Case Type: SMA



	ES1A	1.0	120(T _L)	50	-	30	0.95	1.0	5.0	35 ⁽¹⁾
	ES1B	1.0	120(T _L)	100	-	30	0.95	1.0	5.0	35 ⁽¹⁾
	ES1C	1.0	120(T _L)	150	-	30	0.95	1.0	5.0	35 ⁽¹⁾
	ES1D	1.0	120(T _L)	200	-	30	0.95	1.0	5.0	35 ⁽¹⁾
	ES1E	1.0	120(T _L)	300	-	30	1.25	1.0	5.0	35 ⁽¹⁾
	ES1G	1.0	120(T _L)	400	-	30	1.25	1.0	5.0	35 ⁽¹⁾
	ES1J	1.0	120(T _L)	600	-	30	1.70	1.0	5.0	35 ⁽¹⁾
	ES1K	1.0	55	800	-	30	4.00	1.0	10	35 ⁽¹⁾
	ES1M	1.0	55	1000	-	30	4.00	1.0	10	35 ⁽¹⁾

Notes: (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

(2) Reverse Recovery test conditions : I_F = 100 mA, I_R = 100 mA



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

RG2 Series, 1 - 1.5 A, Case Type: D2



RG2Y		1.5	60	70	5.0	50	1.1	1.5	500	35 ⁽¹⁾	100 ⁽²⁾
RG2Z		1.2	60	200	5.0	50	1.5	1.5	500	35 ⁽¹⁾	100 ⁽²⁾
RG2		1.2	60	400	5.0	50	1.8	1.5	500	35 ⁽¹⁾	100 ⁽²⁾
RG2A		1.0	60	600	5.0	50	2.0	1.0	500	35 ⁽¹⁾	100 ⁽²⁾

RG4 Series, 1 - 2.0 A, Case Type: DO-201AD



RG4Y		2.0	60	70	-	100	1.3	3.5	1000	35 ⁽¹⁾	100 ⁽²⁾
RG4Z		1.0	60	200	-	80	1.7	3.0	1000	35 ⁽¹⁾	100 ⁽²⁾
RG4		1.0	60	400	-	80	1.8	3.0	500	35 ⁽¹⁾	100 ⁽²⁾
RG4A		1.0	60	600	-	50	2.0	2.0	500	35 ⁽¹⁾	100 ⁽²⁾

EL1 Series, 1.5 A, Case Type: DO-41



EL1Z		1.5	25	200	-	20	0.98	1.5	100	50 ⁽²⁾	
EL1		1.5	25	400	-	20	1.30	1.5	10	100 ⁽²⁾	

SFO1/SSOA Series, 1.5 A, Case Type: DO-41/SMA



SFO1	SSOA	1.5	55	50	5.0	60	0.95	1.5	5.0	35 ⁽¹⁾	
SFO2	SSOB	1.5	55	100	5.0	60	0.95	1.5	5.0	35 ⁽¹⁾	
SFO3	SSOC	1.5	55	150	5.0	60	0.95	1.5	5.0	35 ⁽¹⁾	
SFO4	SSOD	1.5	55	200	5.0	60	0.95	1.5	5.0	35 ⁽¹⁾	
SFO5	SSOE	1.5	55	300	5.0	60	1.70	1.5	5.0	35 ⁽¹⁾	
SFO6	SSOG	1.5	55	400	5.0	60	1.70	1.5	5.0	35 ⁽¹⁾	
SFO7	SSOJ	1.5	55	600	5.0	60	1.70	1.5	5.0	35 ⁽¹⁾	
SFO8	SSOK	1.5	55	800	5.0	60	4.00	1.5	20	35 ⁽¹⁾	
SFO9	SSOM	1.5	55	1000	5.0	60	4.00	1.5	20	35 ⁽¹⁾	

EPG20A Series, 2 A, Case Type: D2



EGP20A		2.0	55	50	-	75	0.95	2.0	5.0	50 ⁽¹⁾	
EGP20B		2.0	55	100	-	75	0.95	2.0	5.0	50 ⁽¹⁾	
EGP20C		2.0	55	150	-	75	0.95	2.0	5.0	50 ⁽¹⁾	
EGP20D		2.0	55	200	-	75	0.95	2.0	5.0	50 ⁽¹⁾	

UG2A-D Series, 2 A, Case Type: DO-41



UG2A		2.0	50	50	-	80	0.95	2.0	5.0	15 ⁽¹⁾	
UG2B		2.0	50	100	-	80	0.95	2.0	5.0	15 ⁽¹⁾	
UG2C		2.0	50	150	-	80	0.95	2.0	5.0	15 ⁽¹⁾	
UG2D		2.0	50	200	-	80	0.95	2.0	5.0	15 ⁽¹⁾	

Notes: (1) Reverse Recovery test conditions : $I_F = 0.5$ A, $I_R = 1$ A, $I_{rr} = 0.25$ A

(2) Reverse Recovery test conditions : $I_F = 100$ mA, $I_R = 100$ mA



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

SF21/SS2A Series, 2 A, Case Type: D2/SMB



SF21	SS2A	2.0	55	50	10	75	0.95	2.0	5.0	35 ⁽¹⁾
SF22	SS2B	2.0	55	100	10	75	0.95	2.0	5.0	35 ⁽¹⁾
SF23	SS2C	2.0	55	150	10	75	0.95	2.0	5.0	35 ⁽¹⁾
SF24	SS2D	2.0	55	200	10	75	0.95	2.0	5.0	35 ⁽¹⁾
SF25	SS2E	2.0	55	300	10	75	1.70	2.0	5.0	35 ⁽¹⁾
SF26	SS2G	2.0	55	400	10	75	1.70	2.0	5.0	35 ⁽¹⁾
SF27	SS2J	2.0	55	600	10	75	1.70	2.0	5.0	35 ⁽¹⁾
SF28	SS2K	2.0	55	800	10	75	4.00	2.0	20	35 ⁽¹⁾
SF29	SS2M	2.0	55	1000	10	75	4.00	2.0	20	35 ⁽¹⁾

ES2A Series, 2 A, Case Type: SMB



	ES2A	2.0	110(T _L)	50	-	50	0.90	2.0	5.0	20 ⁽¹⁾
	ES2B	2.0	110(T _L)	100	-	50	0.90	2.0	5.0	20 ⁽¹⁾
	ES2C	2.0	110(T _L)	150	-	50	0.90	2.0	5.0	20 ⁽¹⁾
	ES2D	2.0	110(T _L)	200	-	50	0.90	2.0	5.0	20 ⁽¹⁾

* For SMA package add suffix "A" e.g. ES2AA, ES2BA...

SFT1/SSTA Series, 2.5 A, Case Type: D2A/SMB



SFT1	SSTA	2.5	55	50	10	100	0.95	2.5	5.0	35 ⁽¹⁾
SFT2	SSTB	2.5	55	100	10	100	0.95	2.5	5.0	35 ⁽¹⁾
SFT3	SSTC	2.5	55	150	10	100	0.95	2.5	5.0	35 ⁽¹⁾
SFT4	SSTD	2.5	55	200	10	100	0.95	2.5	5.0	35 ⁽¹⁾
SFT5	SSTE	2.5	55	300	10	100	1.70	2.5	5.0	35 ⁽¹⁾
SFT6	SSTG	2.5	55	400	10	100	1.70	2.5	5.0	35 ⁽¹⁾
SFT7	SSTJ	2.5	55	600	10	100	1.70	2.5	5.0	35 ⁽¹⁾
SFT8	SSTK	2.5	55	800	10	100	4.00	2.5	5.0	35 ⁽¹⁾
SFT9	SSTM	2.5	55	1000	10	100	4.00	2.5	5.0	35 ⁽¹⁾

1N5807/1N5807US Series, 3.0 A, Case Type: D2A/SMB



1N5807	1N5807US	3.0	55	50	-	125	0.875	4	5	30 ⁽²⁾
1N5809	1N5809US	3.0	55	100	-	125	0.875	4	5	30 ⁽²⁾
1N5811	1N5811US	3.0	55	150	-	125	0.875	4	5	30 ⁽²⁾

UF5404 Series, 3 A, Case Type: DO-201AD



UF5404		3.0	55	300	-	150	1.00	3.0	10	50 ⁽¹⁾
UF5405		3.0	55	400	-	150	1.00	3.0	10	50 ⁽¹⁾
UF5406		3.0	55	600	-	150	1.70	3.0	10	75 ⁽¹⁾
UF5407		3.0	55	800	-	150	1.70	3.0	10	75 ⁽¹⁾
UF5408		3.0	55	1000	-	150	1.70	3.0	10	75 ⁽¹⁾

Notes: (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

(2) Reverse Recovery test conditions : I_F = 100 mA, I_R = 100 mA



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

ES3A-M Series, 3 A, Case Type: SMC



	ES3A	3.0	55	50	-	100	0.95	3.0	10	35 ⁽¹⁾
	ES3B	3.0	55	100	-	100	0.95	3.0	10	35 ⁽¹⁾
	ES3C	3.0	55	150	-	100	0.95	3.0	10	35 ⁽¹⁾
	ES3D	3.0	55	200	-	100	0.95	3.0	10	35 ⁽¹⁾
	ES3E	3.0	55	300	-	100	1.30	3.0	10	35 ⁽¹⁾
	ES3G	3.0	55	400	-	100	1.30	3.0	10	35 ⁽¹⁾
	ES3J	3.0	55	600	-	100	1.70	3.0	10	35 ⁽¹⁾
	ES3K	3.0	55	800	-	100	1.70	3.0	10	35 ⁽¹⁾
	ES3M	3.0	55	1000	-	100	1.70	3.0	10	35 ⁽¹⁾

SF31/SS3A Series, 3 A, Case Type: DO-201AD/SMC



SF31	SS3A	3.0	55	50	15	125	0.95	3.0	10	35 ⁽¹⁾
SF32	SS3B	3.0	55	100	15	125	0.95	3.0	10	35 ⁽¹⁾
SF33	SS3C	3.0	55	150	15	125	0.95	3.0	10	35 ⁽¹⁾
SF34	SS3D	3.0	55	200	15	125	0.95	3.0	10	35 ⁽¹⁾
SF35	SS3E	3.0	55	300	15	125	1.70	3.0	10	35 ⁽¹⁾
SF36	SS3G	3.0	55	400	15	125	1.70	3.0	10	35 ⁽¹⁾
SF37	SS3J	3.0	55	600	15	125	1.70	3.0	10	35 ⁽¹⁾
SF38	SS3K	3.0	55	800	15	125	4.00	3.0	10	35 ⁽¹⁾
SF39	SS3M	3.0	55	1000	15	125	4.00	3.0	10	35 ⁽¹⁾

SF51/SS5A Series, 5 A, Case Type: DO-201AD/SMC



SF51	SS5A	5.0	55	50	20	135	0.95	5.0	10	35 ⁽¹⁾
SF52	SS5B	5.0	55	100	20	135	0.95	5.0	10	35 ⁽¹⁾
SF53	SS5C	5.0	55	150	20	135	0.95	5.0	10	35 ⁽¹⁾
SF54	SS5D	5.0	55	200	20	135	0.95	5.0	10	35 ⁽¹⁾
SF55	SS5E	5.0	55	300	20	135	1.70	5.0	10	35 ⁽¹⁾
SF56	SS5G	5.0	55	400	20	135	1.70	5.0	10	35 ⁽¹⁾
SF57	SS5J	5.0	55	600	20	135	1.70	5.0	10	35 ⁽¹⁾
SF58	SS5K	5.0	55	800	20	135	4.00	5.0	10	35 ⁽¹⁾
SF59	SS5M	5.0	55	1000	20	135	4.00	5.0	10	35 ⁽¹⁾

SF61 Series, 6 A, Case Type: D6



SF61		6.0	55	50	25	150	0.95	6.0	5.0	35 ⁽¹⁾
SF62		6.0	55	100	25	150	0.95	6.0	5.0	35 ⁽¹⁾
SF63		6.0	55	150	25	150	0.95	6.0	5.0	35 ⁽¹⁾
SF64		6.0	55	200	25	150	0.95	6.0	5.0	35 ⁽¹⁾
SF65		6.0	55	300	25	150	1.70	6.0	5.0	35 ⁽¹⁾
SF66		6.0	55	400	25	150	1.70	6.0	5.0	35 ⁽¹⁾
SF67		6.0	55	600	25	150	1.70	6.0	5.0	35 ⁽¹⁾
SF68		6.0	55	800	25	150	4.00	6.0	5.0	35 ⁽¹⁾
SF69		6.0	55	1000	25	150	4.00	6.0	5.0	35 ⁽¹⁾

Note: (1) Reverse Recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$



Super Fast Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
	IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr ⁽¹⁾
Axial Lead	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

FES8AT Series, 8 A, Case Type: TO-220AC



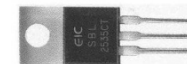
FES8AT ⁽²⁾	8.0	100(Tc)	50	-	125	0.95	8.0	10	35 ⁽¹⁾
FES8BT ⁽²⁾	8.0	100(Tc)	100	-	125	0.95	8.0	10	35 ⁽¹⁾
FES8CT ⁽²⁾	8.0	100(Tc)	150	-	125	0.95	8.0	10	35 ⁽¹⁾
FES8DT ⁽²⁾	8.0	100(Tc)	200	-	125	0.95	8.0	10	35 ⁽¹⁾
FES8FT ⁽²⁾	8.0	100(Tc)	300	-	125	1.30	8.0	10	50 ⁽¹⁾
FES8GT ⁽²⁾	8.0	100(Tc)	400	-	125	1.30	8.0	10	50 ⁽¹⁾
FES8HT ⁽²⁾	8.0	100(Tc)	500	-	125	1.50	8.0	10	50 ⁽¹⁾
FES8JT ⁽²⁾	8.0	100(Tc)	600	-	125	1.50	8.0	10	50 ⁽¹⁾

FES16AT Series, 16 A, Case Type: TO-220AC



FES16AT ⁽²⁾	16	100(Tc)	50	-	250	0.95	16	10	35 ⁽¹⁾
FES16BT ⁽²⁾	16	100(Tc)	100	-	250	0.95	16	10	35 ⁽¹⁾
FES16CT ⁽²⁾	16	100(Tc)	150	-	250	0.95	16	10	35 ⁽¹⁾
FES16DT ⁽²⁾	16	100(Tc)	200	-	250	0.95	16	10	35 ⁽¹⁾
FES16FT ⁽²⁾	16	100(Tc)	300	-	250	1.30	16	10	50 ⁽¹⁾
FES16GT ⁽²⁾	16	100(Tc)	400	-	250	1.30	16	10	50 ⁽¹⁾
FES16HT ⁽²⁾	16	100(Tc)	500	-	250	1.50	16	10	50 ⁽¹⁾
FES16JT ⁽²⁾	16	100(Tc)	600	-	250	1.50	16	10	50 ⁽¹⁾

FEP16AT Series, 16 A, Case Type: TO-220AB



FEP16AT	16	100(Tc)	50	-	125	0.95	16	10	35
FEP16BT	16	100(Tc)	100	-	125	0.95	16	10	35
FEP16CT	16	100(Tc)	150	-	125	0.95	16	10	35
FEP16DT	16	100(Tc)	200	-	125	0.95	16	10	35
FEP16FT	16	100(Tc)	300	-	125	1.30	16	10	50
FEP16GT	16	100(Tc)	400	-	125	1.30	16	10	50
FEP16HT	16	100(Tc)	500	-	125	1.50	16	10	50
FEP16JT	16	100(Tc)	600	-	125	1.50	16	10	50

FEP30AP Series, 30 A, Case Type: TO-247AD



FEP30AP	30	100(Tc)	50	-	300	0.95	30	10	35
FEP30BP	30	100(Tc)	100	-	300	0.95	30	10	35
FEP30CP	30	100(Tc)	150	-	300	0.95	30	10	35
FEP30DP	30	100(Tc)	200	-	300	0.95	30	10	35
FEP30FP	30	100(Tc)	300	-	300	1.30	30	10	50
FEP30GP	30	100(Tc)	400	-	300	1.30	30	10	50
FEP30HP	30	100(Tc)	500	-	300	1.50	30	10	50
FEP30JP	30	100(Tc)	600	-	300	1.50	30	10	50

MUR1520/S, Case Type: TO-220AC



MUR1520	15	150 Tc	200	-	200	1.05	15	10	35
MUR1520S	15	150 Tc	200	-	200	1.05	15	10	35

Notes :

- (1) Reverse Recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$
- (2) For wire leads (case type ITO-220AC) add suffix "F" e.g. FESF8AT, FESF8BT, ..., FESF8JT and FESF16AT, FESF16BT, ..., FESF16JT



Super Fast Glass Passivated Rectifier Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Surge Forward Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Reverse Recovery Time
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Trr ⁽¹⁾
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(μA)	(ns)

LMS1A Series, 1 A, Case Type: M1A

LMS1A		1.0	50	50	-	30	0.95	1.0	5.0	35
LMS1B		1.0	50	100	-	30	0.95	1.0	5.0	35
LMS1D		1.0	50	200	-	30	0.95	1.0	5.0	35
LMS1G		1.0	50	400	-	30	1.7	1.0	5.0	35
LMS1J		1.0	50	600	-	30	1.7	1.0	5.0	35
LMS1K		1.0	50	800	-	30	4.0	1.0	10	35
LMS1M		1.0	50	1000	-	30	4.0	1.0	10	35

SF11G Series, 1 A, Case Type: DO-41

SF11G		1.0	55	50	-	30	0.95	1.0	5.0	35
SF12G		1.0	55	100	-	30	0.95	1.0	5.0	35
SF13G		1.0	55	150	-	30	0.95	1.0	5.0	35
SF14G		1.0	55	200	-	30	0.95	1.0	5.0	35
SF15G		1.0	55	300	-	30	1.7	1.0	5.0	35
SF16G		1.0	55	400	-	30	1.7	1.0	5.0	35
SF17G		1.0	55	600	-	30	1.7	1.0	5.0	35
SF18G		1.0	55	800	-	30	4.0	1.0	10	35
SF19G		1.0	55	1000	-	30	4.0	1.0	10	35

S2L20U, 1.5 A, Case Type: D2A

S2L20U		1.5	25	200	-	50	0.98	1.5	10	35
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1N5802/1N5802US Series, 2.5 A, Case Type: DO-41

1N5802	1N5802US	2.5	75 (T _L)	50	-	35	0.875	1.0	1.0	25
1N5803	1N5803US	2.5	75 (T _L)	75	-	35	0.875	1.0	1.0	25
1N5804	1N5804US	2.5	75 (T _L)	100	-	35	0.875	1.0	1.0	25
1N5805	1N5805US	2.5	75 (T _L)	125	-	35	0.875	1.0	1.0	25
1N5806	1N5806US	2.5	75 (T _L)	150	-	35	0.875	1.0	1.0	25

RHRP660F, 6 A, Case Type: ITO-220AC

RHRP660F		6.0	100(T _C)	600	-	80	2.7	6.0	10	20
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SF61G Series, 6 A, Case Type: D6

SF61G		6.0	55	50	-	150	0.95	6.0	5.0	35
SF62G		6.0	55	100	-	150	0.95	6.0	5.0	35
SF63G		6.0	55	150	-	150	0.95	6.0	5.0	35
SF64G		6.0	55	200	-	150	0.95	6.0	5.0	35
SF65G		6.0	55	300	-	150	1.7	6.0	5.0	35
SF66G		6.0	55	400	-	150	1.7	6.0	5.0	35
SF67G		6.0	55	600	-	150	1.7	6.0	5.0	35
SF68G		6.0	55	800	-	150	4.0	6.0	10	35
SF69G		6.0	55	1000	-	150	4.0	6.0	10	35

SMC1520, 15 A, Case Type: SMC

SMC1520		15	75(T _C)	200	-	200	1.05	15.0	10	35
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MUR3020WT Series, Case Type: TO-247AD (TO-3P)

MUR3020WT		30 A	150 T _C	200	-	200	1.05	15	10	30 ⁽²⁾
MUR3040WT		30 A	150 T _C	400	-	150	1.25	15	10	60 ⁽²⁾

Notes : (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

(2) Reverse Recovery test conditions : I_F = 1A, di/dt = 50 A/ms



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

AK03 Series, 0.7 - 1 A, Case Type: DO-41



AK03		1.0	25	30	-	25	0.55	1.0	1.0
AK04		1.0	25	40	-	25	0.55	1.0	1.0
AK06		0.7	40	60	-	10	0.62	0.7	1.0
AK09		0.7	35	90	-	10	0.81	0.7	1.0

1N5817/SKN7 Series, 1 A, Case Type: DO-41/SMA



1N5817	SKN7	1.0	90	20	5.0	25	0.45	1.0	1.0
1N5818	SKN8	1.0	90	30	5.0	25	0.55	1.0	1.0
1N5819	SKN9	1.0	90	40	5.0	25	0.60	1.0	1.0

LL5817 Series, 1 A, Case Type: MELF(Plastic)



	LL5817	1.0	90	20	5.0	25	0.45	1.0	1.0
	LL5818	1.0	90	30	5.0	25	0.55	1.0	1.0
	LL5819	1.0	90	40	5.0	25	0.60	1.0	1.0

1S20 - 1SB0 Series, 1.0 A, Case Type: M1A



1S20		1.0	75	20	-	35	0.55	1.0	1.0
1S30		1.0	75	30	-	35	0.55	1.0	1.0
1S40		1.0	75	40	-	35	0.55	1.0	1.0
1S50		1.0	100	50	-	35	0.70	1.0	1.0
1S60		1.0	100	60	-	35	0.70	1.0	1.0
1S80		1.0	100	80	-	35	0.85	1.0	1.0
1SB0		1.0	100	100	-	35	0.85	1.0	1.0

ERA Series, 1 A, Case Type: DO-41



ERA81-004		1.0	25	40	-	50	0.55	1.0	2.0
ERA83-004		1.0	115	40	-	50	0.55	1.0	2.0
ERA83-006		1.0	111	60	-	30	0.58	1.0	2.0
ERA84-009		1.0	25	90	-	60	0.90	1.0	1.0

SB120/SK12 Series, 1 A, Case Type: DO-41/SMA



SB120	SK12	1.0	75	20	5.0	40	0.50	1.0	0.5
SB130	SK13	1.0	75	30	5.0	40	0.50	1.0	0.5
SB140	SK14	1.0	75	40	5.0	40	0.50	1.0	0.5
SB150	SK15	1.0	100	50	5.0	40	0.70	1.0	0.5
SB160	SK16	1.0	100	60	5.0	40	0.70	1.0	0.5
SB170	SK17	1.0	100	70	5.0	40	0.70	1.0	0.5
SB180	SK18	1.0	100	80	5.0	40	0.79	1.0	0.5
SB190	SK19	1.0	100	90	5.0	40	0.79	1.0	0.5
SB1B0	SK1B	1.0	100	100	5.0	40	0.79	1.0	0.5



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

MBR150 Series, 1 A, Case Type: DO-41



MBR150		1.0	55 (Ta)	50	-	25	0.75	1.0	0.5
MBR160		1.0	55 (Ta)	60	-	25	0.75	1.0	0.5

EK Series, 1 - 1.5 A, Case Type: DO-41



EK03		1.0	25	30	-	25	0.55	1.0	1.0
EK04		1.0	25	40	-	25	0.55	1.0	1.0
EK13		1.5	40	30	-	40	0.55	2.0	5.0
EK14		1.5	40	40	-	40	0.55	2.0	5.0
EK16		1.5	40	60	-	25	0.62	1.5	1.0
EK19		1.5	35	90	-	40	0.81	1.5	2.0

11DQ03 Series, 1.1 A, Case Type: DO-41



11DQ03		1.1	75 (Tc)	30	-	42	0.55	1.1	6.0
11DQ04		1.1	75 (Tc)	40	-	42	0.55	1.1	6.0
11DQ05		1.1	84 (Tc)	50	-	26	0.58	1.1	11
11DQ06		1.1	84 (Tc)	60	-	26	0.58	1.1	11
11DQ09		1.1	75 (Tc)	90	-	42	0.85	1.1	0.5
11DQ10		1.1	75 (Tc)	100	-	42	0.85	1.1	1.0

10MQ Series, 1.5 A, Case Type: SMA



	10MQ040N	1.5	123	40	-	30	0.62	1.5	0.5
	10MQ100N	1.5	126	100	-	30	0.85	1.5	0.1

SL12 Series, 1.5 A, Case Type: SMA



	SL12	1.5	105	20	-	50	0.445	1.0	0.2
	SL13	1.5	105	30	-	50	0.445	1.0	0.2

RK13 Series, 1.5 - 1.7 A, Case Type: D2



RK13		1.7	75	30	15	50	0.55	1.7	5.1
RK14		1.7	75	40	15	50	0.55	1.7	5.1
RK16		1.5	75	60	15	50	0.62	1.5	1.0
RK19		1.5	75	90	15	50	0.81	1.5	2.0

21DQ09 Series, 1.7 A, Case Type: DO-41



21DQ09		1.7	47	90	-	70	0.85	2.0	1.0
21DQ10		1.7	43	100	-	70	0.85	2.0	1.0



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

SBO20 Series, 1.5 A, Case Type: DO-41



SBO20		1.5	75	20	-	50	0.50	1.5	0.5
SBO30		1.5	75	30	-	50	0.50	1.5	0.5
SBO40		1.5	75	40	-	50	0.50	1.5	0.5
SBO50		1.5	100	50	-	50	0.70	1.5	0.5
SBO60		1.5	100	60	-	50	0.70	1.5	0.5
SBO70		1.5	100	70	-	50	0.70	1.5	0.5
SBO80		1.5	100	80	-	50	0.79	1.5	0.5
SBO90		1.5	100	90	-	50	0.79	1.5	0.5
SBOB0		1.5	100	100	-	50	0.79	1.5	0.5

ERB81 Series, 2.0 A, Case Type: D2



ERB81-004		2.0	25 (Ta)	40	-	100	0.55	2.0	5.0
ERB83-004		2.0	25 (Ta)	40	-	100	0.55	2.0	5.0
ERB83-006		2.0	104	60	-	60	0.58	2.0	5.0
ERB84-009		2.0	25 (Ta)	90	-	60	0.90	2.0	2.0

SB220/SK22 Series, 2.0 A, Case Type: D2/SMB



SB220	SK22	2.0	75	20	10	60	0.50	2.0	0.5
SB230	SK23	2.0	75	30	10	60	0.50	2.0	0.5
SB240	SK24	2.0	75	40	10	60	0.50	2.0	0.5
SB250	SK25	2.0	100	50	10	60	0.74	2.0	0.5
SB260	SK26	2.0	100	60	10	60	0.74	2.0	0.5
SB270	SK27	2.0	100	70	10	60	0.74	2.0	0.5
SB280	SK28	2.0	100	80	10	60	0.79	2.0	0.5
SB290	SK29	2.0	100	90	10	60	0.79	2.0	0.5
SB2B0	SK2B	2.0	100	100	10	60	0.79	2.0	0.5

Also available in Axial DO-41 and SMD SMA Case Types. Use suffix "S" to order (e.g. SB220S, SK22S)

SR220 - SR2100 Series, 2.0 A, Case Type: DO-41



SR220		2.0	40	20	-	50	0.55	2.0	2.0
SR230		2.0	40	30	-	50	0.55	2.0	2.0
SR240		2.0	40	40	-	50	0.55	2.0	2.0
SR250		2.0	60	50	-	50	0.70	2.0	2.0
SR260		2.0	60	60	-	50	0.70	2.0	2.0
SR290		2.0	60	90	-	50	0.85	2.0	2.0
SR2100		2.0	60	100	-	50	0.85	2.0	2.0

RK33 Series, 2.0 - 2.5 A, Case Type: D2A



RK33		2.5	75	30	15	50	0.55	2.5	5.0
RK34		2.5	75	40	15	50	0.55	2.5	5.0
RK36		2.0	75	60	15	50	0.62	2.0	2.0
RK39		2.0	75	90	15	50	0.81	2.0	3.0



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

SBT20 Series, 2.5 A, Case Type: D2A



SBT20		2.5	75	20	-	50	0.50	1.5	0.5
SBT30		2.5	75	30	-	50	0.50	1.5	0.5
SBT40		2.5	75	40	-	50	0.50	1.5	0.5
SBT50		2.5	100	50	-	50	0.74	1.5	0.5
SBT60		2.5	100	60	-	50	0.74	1.5	0.5
SBT70		2.5	100	70	-	50	0.74	1.5	0.5
SBT80		2.5	100	80	-	50	0.79	1.5	0.5
SBT90		2.5	100	90	-	50	0.79	1.5	0.5
SBTB0		2.5	100	100	-	50	0.79	1.5	0.5

ERC Series, 2.6 - 3.0 A, Case Type: DO-201AD



ERC81-004		2.6	25	40	-	120	0.55	3.0	5.0
ERC81-006		3.0	104	60	-	80	0.58	3.0	5.0
ERC84-009		3.0	85	90	-	120	0.80	3.0	0.5

RB055L-40 3.0 A, Case Type: SMA



RB055L-40		3.0	25	40	-	40	0.65	3.0	0.5
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1N5820/SKN0 Series, 3 A, Case Type: DO-201AD/SMC



1N5820	SKN0	3.0	95	20	15	80	0.475	3.0	2.0
1N5821	SKN1	3.0	95	30	15	80	0.500	3.0	2.0
1N5822	SKN2	3.0	95	40	15	80	0.525	3.0	2.0

Also available in Axial D2A and SMD SMB Case Types. Use suffix "S" to order (e.g. 1N5820S, SKN0S)

SB320/SK32 Series, 3 A, Case Type: DO-201AD/SMC



SB320	SK32	3.0	75	20	15	80	0.50	3.0	0.5
SB330	SK33	3.0	75	30	15	80	0.50	3.0	0.5
SB340	SK34	3.0	75	40	15	80	0.50	3.0	0.5
SB350	SK35	3.0	100	50	15	80	0.74	3.0	0.5
SB360	SK36	3.0	100	60	15	80	0.74	3.0	0.5
SB370	SK37	3.0	100	70	15	80	0.74	3.0	0.5
SB380	SK38	3.0	100	80	15	80	0.79	3.0	0.5
SB390	SK39	3.0	100	90	15	80	0.79	3.0	0.5
SB3B0	SK3B	3.0	100	100	15	80	0.79	3.0	0.5

Also available in Axial D2A and SMD SMB Case Types. Use suffix "S" to order (e.g. SB320S, SK32S), SMA Case Types. Use suffix "A" to order (e.g. SK32A).

MBR320 Series, 3 A, Case Type: DO-201AD



MBR320		3.0	65 (Ta)	20	-	80	0.60	3.0	0.6
MBR330		3.0	65 (Ta)	30	-	80	0.60	3.0	0.6
MBR340		3.0	65 (Ta)	40	-	80	0.60	3.0	0.6
MBR350		3.0	65 (Ta)	50	-	80	0.74	3.0	0.6
MBR360		3.0	65 (Ta)	60	-	80	0.74	3.0	0.6



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

RK43 Series, 3.0 - 3.5 A, Case Type: DO-201AD



RK43		3.0	109	30	-	80	0.55	3.0	5.0
RK44		3.0	109	40	-	80	0.55	3.0	5.0
RK46		3.5	109	60	-	70	0.62	3.5	3.0
RK49		3.5	109	90	-	60	0.81	3.5	5.0

31DQ03 Series, 3.3 A, Case Type: DO-201AD



31DQ03		3.3	48 (Tc)	30	-	120	0.55	3.0	3.0
31DQ04		3.3	48 (Tc)	40	-	120	0.55	3.0	3.0
31DQ09		3.3	53 (Tc)	90	-	34	0.85	3.5	1.0
31DQ10		3.3	53 (Tc)	100	-	34	0.85	3.5	1.0

SB520/SK52 Series, 5 A, Case Type: DO-201AD/SMC



SB520	SK52	5.0	60	20	25	150	0.55	5.0	0.5
SB530	SK53	5.0	60	30	25	150	0.55	5.0	0.5
SB540	SK54	5.0	60	40	25	150	0.55	5.0	0.5
SB550	SK55	5.0	80	50	25	150	0.67	5.0	0.5
SB560	SK56	5.0	80	60	25	150	0.67	5.0	0.5
SB570	SK57	5.0	80	70	25	150	0.67	5.0	0.5
SB580	SK58	5.0	80	80	25	150	0.79	5.0	0.5
SB590	SK59	5.0	80	90	25	150	0.79	5.0	0.5
SB5B0	SK5B	5.0	80	100	25	150	0.79	5.0	0.5

Also available in Axial D2A and SMD SMB Case Types. Use suffix "S" to order (e.g. SB520S, SK52S)

SR520 Series, 5.0 A, Case Type: DO-201AD



SR520		5.0	60	20	-	150	0.57	5.0	10
SR530		5.0	60	30	-	120	0.57	5.0	10
SR540		5.0	60	40	-	120	0.57	5.0	10
SR550		5.0	85	50	-	120	0.70	5.0	10
SR560		5.0	85	60	-	120	0.70	5.0	10

SB5150-SB5200, 5.0 A, Case Type: DO-201AD



SB5150		5.0	25(Ta)	150	-	100	0.85	5.0	0.01
SB5200		5.0	25(Ta)	200	-	100	0.87	5.0	0.01

MBR735 Series, 7.5 A, Case Type: TO-220AC



MBR735		7.5	105(Tc)	35	-	150	-	-	0.1
MBR745		7.5	105(Tc)	45	-	150	-	-	0.1
MBR750		7.5	105(Tc)	50	-	150	0.75	7.5	0.5
MBR760		7.5	105(Tc)	60	-	150	0.75	7.5	0.5

SBL1030 Series, 10 A, Case Type: TO-220AC

SBL1030		10	110(Tc)	30	-	250	0.6	10	1.0
SBL1040		10	110(Tc)	40	-	250	0.6	10	1.0



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

SD1045/SD1645, 10-16 A, Case Type: DO-201AD



SD1045		10	100	45	-	340	0.55	10	0.8
SD1545		15	25(Tc)	45	-	300	0.54	15	0.2
SD1645		16	25(Tc)	45	-	300	0.55	16	0.2

SK1045/SK1545, 10-15 A, Case Type: SMC



SK1045		10	100	45	-	340	0.55	10	0.8
SK1545		15	25(Tc)	45	-	300	0.54	15	0.2

MBRB1045/MBRB1545, 10-15 A, Case Type: D2PAK



MBRB1045		10	120(Tc)	45	-	150	0.57	10	0.20
MBRB1545		15	120(Tc)	45	-	150	0.54	15	0.25

MBR1035 Series, 10 A, Case Type: TO-220AC



MBR1035		10	125(Tc)	35	-	150	0.84	10	0.10
MBR1045		10	125(Tc)	45	-	150	0.84	10	0.10
MBR1050		10	125(Tc)	50	-	150	0.80	10	0.15
MBR1060		10	125(Tc)	60	-	150	0.80	10	0.15

SBL1030CT Series, 10 - 16 A, Case Type: TO-220AB



SBL1030CT		10	95(Tc)	30	-	250	0.55	5	0.5
SBL1040CT		10	95(Tc)	40	-	250	0.55	5	0.5
SBL1630CT		16	95(Tc)	30	-	250	0.55	8	0.5
SBL1640CT		16	95(Tc)	40	-	250	0.55	8	0.5

MBR1660CT Series, 16 A, Case Type: TO-220AB



MBR1660CT		16	115(Tc)	60	-	150	0.75	8.0	1.00
MBR16100CT		16	133(Tc)	100	-	150	0.84	16	0.10

MBR1635 Series, 16 A, Case Type: TO-220AC



MBR1635		16	125(Tc)	35	-	150	0.63	16	0.20
MBR1645		16	125(Tc)	45	-	150	0.63	16	0.20
MBR1650		16	125(Tc)	50	-	150	0.75	16	1.00
MBR1660		16	125(Tc)	60	-	150	0.75	16	1.00

MBRF16H35 Series, 16 A, Case Type: ITO-220AC



MBRF16H35		16	130(Tc)	35	-	150	0.66	16	0.10
MBRF16H45		16	130(Tc)	45	-	150	0.66	16	0.10
MBRF16H50		16	130(Tc)	50	-	150	0.73	16	0.10
MBRF16H60		16	130(Tc)	60	-	150	0.73	16	0.10



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

MBR2035CT Series, 20 A, Case Type: TO-220AB



MBR2035CT		20	135(Tc)	35	-	150	0.57	10	0.10
MBR2045CT		20	135(Tc)	45	-	150	0.57	10	0.10
MBR2050CT		20	135(Tc)	50	-	150	0.8	10	0.15
MBR2060CT		20	135(Tc)	60	-	150	0.8	10	0.15

MBR2535CT Series, 30 A, Case Type: TO-220AB



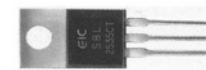
MBR2535CT		30	130(Tc)	35	30	150	0.82	30	0.20
MBR2545CT		30	130(Tc)	45	30	150	0.82	30	0.20
MBR2550CT		30	130(Tc)	50	30	150	0.75	15	1.00
MBR2560CT		30	130(Tc)	60	30	150	0.75	15	1.00

MBRB3045CT Series, 30 A, Case Type: D²PAK



	MBRB3045CT	30	110(Tc)	45	-	200	0.76	30	1.0
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MBR3045CT Series, 30 A, Case Type: TO-220AB



MBR3045CT		30	110(Tc)	45	-	200	0.76	30	1.0
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SBL2030PT Series, 20 - 40 A, Case Type: TO-247AD



SBL2030PT		20	105(Tc)	30	-	250	0.55	10	1.0
SBL2040PT		20	105(Tc)	40	-	250	0.55	10	1.0
SBL3030PT		30	100(Tc)	30	-	250	0.55	15	1.0
SBL3040PT		30	100(Tc)	40	-	250	0.55	15	1.0
SBL4030PT		40	100(Tc)	30	-	250	0.58	20	10
SBL4040PT		40	100(Tc)	40	-	250	0.58	20	10

MBR3035PT Series, 30 A, Case Type: TO-247AD



MBR3035PT		30	105(Tc)	35	30	200	0.76	30	1.0
MBR3045PT		30	105(Tc)	45	30	200	0.76	30	1.0
MBR3050PT		30	125(Tc)	50	30	300	0.75	20	5.0
MBR3060PT		30	125(Tc)	60	30	300	0.75	20	5.0

MBR4035PT Series, 40 A, Case Type: TO-247AD



MBR4035PT		40	120(Tc)	35	40	400	0.7	20	10
MBR4045PT		40	120(Tc)	45	40	400	0.7	20	10
MBR4050PT		40	120(Tc)	50	40	400	0.8	20	10
MBR4060PT		40	120(Tc)	60	40	400	0.8	20	10



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

MBRS1 Series, 1 A, Case Type: SMB



	MBRS120T3	1.0	115	20	-	40	0.60	1.0	1.0
	MBRS130LT3	1.0	120	30	-	40	0.40	1.0	1.0
	MBRS140	1.0	115	40	-	40	0.60	1.0	1.0
	MBRS1100	1.0	120	100	-	50	0.75	1.0	0.5

MBRS240LT3G, 2 A, Case Type: SMB



	MBRS240LT3G	2.0	100(Tc)	40	-	25	0.43	2.0	2.0
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MBRS3200, 3 A, Case Type: SMB



	MBRS3200	3.0	120	200	-	100	0.84	3.0	1.0
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MBRS3 Series, 3 A, Case Type: SMC



	MBRS330T3	3.0	100	30	-	80	0.50	3.0	2.00
	MBRS340T3	3.0	100	40	-	80	0.53	3.0	2.00
	MBRS360T3	3.0	137	60	-	125	0.74	3.0	0.15
	MBRS3100	3.0	100	100	-	130	0.79	3.0	0.05
	MBRS3201	3.0	70(Tc)	200	-	100	0.84	3.0	1.00

MBRS4201, 4 A, Case Type: SMC



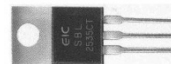
	MBRS4201	4.0	70	200	-	100	0.86	4.0	1.0
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SB5150/SB5200, 5 A, Case Type: DO-201AD



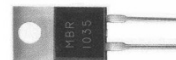
	SB5150	5.0	110(Ta)	150	-	100	0.85	5.0	0.01
	SB5200	5.0	110(Ta)	200	-	100	0.87	5.0	0.01

FST10 Series, 10 A, Case Type: TO-220AB



FST10120		10	162	120	-	200	0.82	5	0.1
FST10130		10	162	130	-	200	0.82	5	0.1
FST10150		10	162	150	-	200	0.82	5	0.1
FST10180		10	137	180	-	200	0.84	5	0.1
FST10200		10	137	200	-	200	0.84	5	0.1

MS10 Series, 10 A, Case Type: TO-220AC



MS10180		10	155	180	-	225	0.88	10	0.1
MS10200		10	155	200	-	225	0.88	10	0.1



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

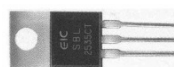
Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C
		IF(AV)	@ TL	VRRM	IFRM	IFSM	VF	@ IF	IR
Axial Lead	SMD	(A)	(°C)	(V)	(A)	(A)	(V)	(A)	(mA)

MS16 Series, 16 A, Case Type: TO-220AC



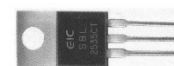
MS16180		16	146	180	-	250	0.88	16	0.1
MS16200		16	146	200	-	250	0.88	16	0.1

FST20 Series, 20 A, Case Type: TO-220AB



FST20120		20	157	120	-	225	0.83	10	0.1
FST20130		20	157	130	-	225	0.83	10	0.1
FST20150		20	157	150	-	225	0.83	10	0.1
FST20180		20	155	180	-	225	0.88	10	0.1
FST20200		20	155	200	-	225	0.88	10	0.1

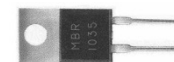
MBR20200CT, 20 A, Case Type: TO-220AB



MBR20200CT		20	125(Tc)	200	20	150	1.00	20	1.0
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* For package ITO-220AB part number MBRF20200CT

MS20 Series, 20 A, Case Type: TO-220AC



MS20180		20	141	180	-	250	0.85	20	0.1
MS20200		20	141	200	-	250	0.85	20	0.1

FST31 Series, 30 A, Case Type: TO-220AB



FST31120		30	153	120	-	250	0.85	15	0.25
FST31130		30	153	130	-	250	0.85	15	0.25
FST31150		30	153	150	-	250	0.85	15	0.25
FST31180		30	150	180	-	250	0.83	15	0.10
FST31200		30	150	200	-	250	0.83	15	0.10



Schottky Barrier Rectifiers

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Power Dissipation
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Pd
Axial Lead	SMD	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(mW)

1N5711/LL5711, Case Type: DO-35 / MiniMELF



1N5711	LL5711	1.0	25	70	-	2.0	0.41	1.0	0.2	400
1N6263	LL6263	1.0	25	60	-	2.0	0.41	1.0	0.2	400

1SS88 Series, Case Type: DO-35



1SS88		15	25	10	-	-	0.43	1.0	0.2	150
1SS106		30	25	10	-	-	4.50	1.0	70	-
1SS108		15	25	30	-	-	3.00	1.0	100	-

1SS165 Series, Case Type: DO-34



1SS165		15	25	10	-	-	0.6	10	0.2	150
1SS166		15	25	10	-	-	0.6	10	0.2	150
1SS198		30	25	10	-	-	1.0	4.5	70	-
1SS199		15	25	30	-	-	1.0	2.0	100	-
1SS286		35	25	25	-	-	0.6	10	0.01	150

BAT41 / LL41 Series, Case Type: DO-35 / MiniMELF



BAT41	LL41	100	25	100	350	0.75	0.45	1.0	0.1	400
BAT42	LL42	200	25	30	500	4.00	0.40	10	0.5/1.0	200
BAT43	LL43	200	25	30	500	4.00	0.33	2.0	0.5/1.0	200
BAT46	LL46	150	25	100	350	0.75	0.45	10	5.0	150/200
BAT48	LL48	350	25	40	1A	0.75	0.40	10	25	330

BAT81 Series, Case Type: DO-34



BAT81		30	25	40	150	0.5	0.41	1.0	0.2	200
BAT82		30	25	50	150	0.5	0.41	1.0	0.2	200
BAT83		30	25	60	150	0.5	0.41	1.0	0.2	200

BAT85/BAS85 Series, Case Type: DO-35 / MiniMELF



BAT85	BAS85	200	25	30	-	0.6	0.40	10	2.0	200
BAT86	BAS86	200	50	50	500	-	0.45	10	5.0	200

HSS100 Series, Case Type: DO-34



HSS100		35	25	60	-	-	0.9	20	0.10	150
HSS101		35	25	30	-	-	0.7	10	0.01	150
HSS102		35	25	70	-	-	1.1	20	0.01	150



Schottky Barrier Rectifiers

Type No.		Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Power Dissipation
		IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Pd
Axial Lead	SMD	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(mW)

MA700 Series, Case Type: DO-34



MA700		150	25	15	-	-	0.4	10	0.10	-
MA700A		150	25	30	-	-	0.4	1.0	0.15	-

RB441Q-40 & RB721Q-40. Case Type: DO-34



RB441Q-40		10	25	40	-	1.0	0.34	10	100	-
RB721Q-40		30	25	40	-	200mA	0.37	1.0	0.5	-

SB0015-03A & SB0030-01A. Case Type: DO-34



SB0015-03A		15	25	30	-	-	1.0	3.0	100	-
SB0030-01A		30	25	10	-	-	1.0	4.5	70	-

SD101A/LL101A Series, Case Type: DO-35/MiniMELF



SD101A	LL101A	30	25	60	-	2.0	1.00	15	0.2	400
SD101B	LL101B	30	25	50	-	2.0	0.95	15	0.2	400
SD101C	LL101C	30	25	40	-	2.0	0.90	15	0.2	400

BAS81 - BAS83 , Case Type: MiniMELF



BAS81		30	25	40	-	500mA	1.0	15	0.2	-
BAS82		30	25	50	-	500mA	1.0	15	0.2	-
BAS83		30	25	60	-	500mA	1.0	15	0.2	-

SD103A/LL103A Series, Case Type: DO-35/MiniMELF



SD103A	LL103A	200	25	40	-	15	0.55	200	5.0	400
SD103B	LL103B	200	25	50	-	15	0.55	200	5.0	400
SD103C	LL103C	200	25	60	-	15	0.55	200	5.0	400



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Power Dissipation
	IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Pd
SMD	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(mW)

BAT42W Series, Case Type: SOD-123



BAT42W*	200	25	30	-	4.0	1.00	200	0.5	200
BAT43W*	200	25	30	-	4.0	1.00	200	0.5	200
BAT54W*	200	25	30	-	1.0	0.65	100	2.0	200
BAT46W	150	25	100	-	0.75	1.00	250	5.0	200

* Also available in SMD SOD-323 Case Types. Use suffix "S" to order (e.g. BAT42WS, BAT43WS, BAT54WS)

and SOD-523 Case Types. Use suffix "T" to order (e.g. BAT42WT, BAT43WT, BAT54WT)

MBR0520L, MBR0520-04 , Case Type: SOD-123



MBR0520L	500	90	20	-	5.5	0.385	500	250	-
MBR0520	500	129(TL)	20	-	6.5	0.440	500	150	-
MBR0530	500	100	30	-	5.5	0.430	500	130	-
MBR0540	500	25	40	-	5.5	0.510	500	20	-

1N5817WB Series, 1 A, Case Type: SOD-123



1N5817WB	1(A)	25	20	-	-	0.45	1.0	1.0	450
1N5818WB	1(A)	25	30	-	-	0.55	1.0	1.0	450
1N5819WB	1(A)	25	40	-	-	0.60	1.0	1.0	450

MBR130W, Case Type: SOD-123



MBR130W	1(A)	65(TL)	30	-	5.5	0.50	0.7	200	-
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SD101AW-CW Series, Case Type: SOD-123



SD101AW	15	25	60	-	2.0	1.00	15	0.2	400
SD101BW	15	25	50	-	2.0	0.95	15	0.2	400
SD101CW	15	25	40	-	2.0	0.90	15	0.2	400

SD103AW-CWS Series, Case Type: SOD-123



SD103AW	350	25	40	-	2.0	0.60	200	5.0	400
SD103BW	350	25	30	-	2.0	0.60	200	5.0	400
SD103CW	350	25	20	-	2.0	0.60	200	5.0	400



Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Power Dissipation
	IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Pd
SMD	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(mW)

SD101AWS Series, Case Type: SOD-323



SD101AWS	30	25	60	-	2.0	1.00	15	0.2	150
SD101BWS	30	25	50	-	2.0	0.95	15	0.2	150
SD101CWS	30	25	40	-	2.0	0.90	15	0.2	150

SD103AWS Series, Case Type: SOD-323



SD103AWS	200	25	40	-	2.0	0.60	200	5.0	150
SD103BWS	200	25	30	-	2.0	0.60	200	5.0	150
SD103CWS	200	25	20	-	2.0	0.60	200	5.0	150

RB751V-40/RB501V-40 , Case Type: SOD-323



RB751V-40*	30	25	40	-	0.2	0.37	1.0	0.5	-
RB501V-40	100	25	45	-	1.0	0.55	100	30	-

* Also available in SMD SOD-523 Case Types. Use suffix "S" to order p/n RB751S-40

1SS367 , Case Type: SOD-323



1SS367	100	25	15	-	1.0	0.3	5.0	20	-
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SDB412WS , Case Type: SOD-323



SDB412WS	500	25	40	-	0.5	0.5	500	200	-
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RB520S-30/RB521S-30, -40 , Case Type: SOD-523



RB520S-30	200	25	30	-	1.0	0.60	200	1.0	-
RB521S-30	200	25	30	-	1.0	0.50	200	30	-
RB521S-40	200	25	40	-	1.0	0.50	200	90	-

1SS388, Case Type: SOD-523



1SS388	100	25	45	-	1.0	0.6	50	5.0	150
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RB521G-30, Case Type: SOD-523



RB521G-30	100	25	30	-	1.0	0.35	10	10.0	-
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Schottky Barrier Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Max. Repetitive Peak Reverse Voltage	Max. Repetitive Peak Forward Current	Max. Forward Surge Current	Max. Forward Voltage Drop at Ta=25°C		Max. Reverse Current at Ta=25°C	Max. Power Dissipation
	IF(AV)	@ Ta	VRRM	IFRM	IFSM	VF	@ IF	IR	Pd
SMD	(mA)	(°C)	(V)	(mA)	(A)	(V)	(mA)	(μA)	(mW)

1SS294, Case Type: SOT-23



1SS294	300	25	45	-	-	0.6	10	5.0	150
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BAT400D, Case Type: SOT-23



BAT400D	500	25	40	-	3	0.55	500	50.0	480
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BAT54 Series, Case Type: SOT-23



BAT54	200	25	30	0.3	0.6	0.5	30	2.0	230
BAT54A	200	25	30	0.3	0.6	0.5	30	2.0	230
BAT54C	200	25	30	0.3	0.6	0.5	30	2.0	230
BAT54S	200	25	30	0.3	0.6	0.5	30	2.0	230

BAS40 Series, Case Type: SOT-23



BAS40	200	25	40	-	0.6	1.0	40	0.2	-
BAS40-04	200	25	40	-	0.6	1.0	40	0.2	-
BAS40-05	200	25	40	-	0.6	1.0	40	0.2	-
BAS40-06	200	25	40	-	0.6	1.0	40	0.2	-

BAS40W Series, Case Type: SOT-23



BAS40W	200	25	40	-	0.6	1.0	40	0.2	200
BAS40-04W	200	25	40	-	0.6	1.0	40	0.2	200
BAS40-05W	200	25	40	-	0.6	1.0	40	0.2	200
BAS40-06W	200	25	40	-	0.6	1.0	40	0.2	200

BAS70 Series, Case Type: SOT-23



BAS70	200	25	70	-	0.6	1.0	15	0.1	200
BAS70-04	200	25	70	-	0.6	1.0	15	0.1	200
BAS70-05	200	25	70	-	0.6	1.0	15	0.1	200
BAS70-06	200	25	70	-	0.6	1.0	15	0.1	200



Zener Diodes 0.20 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage (Note 1)			Test Current	Zener Impedance		Test Current	Leakage Current	
		V_Z @ I_{ZT} (V)			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R	
		Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)

MM5Z2V4 Series, 0.2 W, Case Type : SOD-523



MM5Z2V4	Z7	2.2	2.4	2.6	5	100	1000	1.0	50	1.0
MM5Z2V7	A8	2.5	2.7	2.9	5	100	1000	1.0	20	1.0
MM5Z3V0	B8	2.8	3.0	3.2	5	100	1000	1.0	10	1.0
MM5Z3V3	C8	3.1	3.3	3.5	5	95	1000	1.0	5	1.0
MM5Z3V6	D8	3.4	3.6	3.8	5	90	1000	1.0	5	1.0
MM5Z3V9	E8	3.7	3.9	4.1	5	90	1000	1.0	3	1.0
MM5Z4V3	F8	4.0	4.3	4.6	5	90	1000	1.0	3	1.0
MM5Z4V7	G8	4.4	4.7	5.0	5	80	800	1.0	3	2.0
MM5Z5V1	H8	4.8	5.1	5.4	5	60	500	1.0	2	2.0
MM5Z5V6	I8	5.2	5.6	6.0	5	40	200	1.0	1	2.0
MM5Z6V2	J8	5.8	6.2	6.6	5	10	100	1.0	3	4.0
MM5Z6V8	K8	6.4	6.8	7.2	5	15	160	1.0	2	4.0
MM5Z7V5	L8	7.0	7.5	7.9	5	15	160	1.0	1	5.0
MM5Z8V2	M8	7.7	8.2	8.7	5	15	160	1.0	0.7	5.0
MM5Z9V1	N8	8.5	9.1	9.6	5	15	160	1.0	0.2	7.0
MM5Z10V	O8	9.4	10	10.6	5	20	160	1.0	0.1	8.0
MM5Z11V	P8	10.4	11	11.6	5	20	160	1.0	0.1	8.0
MM5Z12V	Q8	11.4	12	12.7	5	25	80	1.0	0.1	8.0
MM5Z13V	R8	12.4	13.25	14.1	5	30	80	1.0	0.1	8.0
MM5Z15V	S8	14.3	15	15.8	5	30	80	1.0	0.05	10.5
MM5Z16V	T8	15.3	16.2	17.1	5	40	80	1.0	0.05	11.2
MM5Z18V	U8	16.8	18	19.1	5	45	80	1.0	0.05	12.6
MM5Z20V	V8	18.8	20	21.2	5	55	100	1.0	0.05	14.0
MM5Z22V	W8	20.8	22	23.3	5	55	100	1.0	0.05	15.4
MM5Z24V	X8	22.8	24.2	25.6	5	70	120	1.0	0.05	16.8
MM5Z27V	Y8	25.1	27	28.9	2	80	300	1.0	0.05	18.9
MM5Z30V	Z8	28	30	32	2	80	300	1.0	0.05	21.0
MM5Z33V	A9	31	33	35	2	80	300	1.0	0.05	23.2
MM5Z36V	B9	34	36	38	2	90	500	1.0	0.05	25.2
MM5Z39V	C9	37	39	41	2	130	500	1.0	0.05	27.3
MM5Z43V	D9	40	43	46	2	150	500	1.0	0.05	30.1
MM5Z47V	E9	44	47	50	2	170	500	1.0	0.05	32.9
MM5Z51V	F9	48	51	54	2	180	500	1.0	0.05	35.7
MM5Z56V	G9	52	56	60	2	200	500	1.0	0.05	39.2
MM5Z62V	H9	58	62	66	2	215	500	1.0	0.05	43.4
MM5Z68V	I9	64	68	72	2	240	500	1.0	0.05	47.6
MM5Z75V	J9	70	75	79	2	255	500	1.0	0.05	52.5

Note :

(1) Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25 °C.



Zener Diodes 0.20 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ⁽¹⁾			Test Current	Zener Impedance	Test Current	Leakage Current	
		V_Z @ I_{ZT} (V)			I_{ZT}	Z_{ZT} @ I_{ZT}	I_{ZT}	I_R @	V_R
		Min.	Nom.	Max.	(mA)	(Ω)	(mA)	(μ A)	(V)

MM5Z2B4 Series, 0.2 W, Case Type : SOD-523



MM5Z2B4	XY	2.352	2.4	2.448	5.0	100	5.0	120	1.0
MM5Z2B7	XZ	2.646	2.7	2.754	5.0	110	5.0	120	1.0
MM5Z3B0	FR	2.940	3.0	3.060	5.0	120	5.0	50	1.0
MM5Z3B3	FX	3.234	3.3	3.366	5.0	130	5.0	20	1.0
MM5Z3B6	FY	3.528	3.6	3.672	5.0	130	5.0	10	1.0
MM5Z3B9	FZ	3.822	3.9	3.978	5.0	130	5.0	5.0	1.0
MM5Z4B3	HA	4.214	4.3	4.386	5.0	130	5.0	5.0	1.0
MM5Z4B7	HB	4.606	4.7	4.794	5.0	130	5.0	2.0	1.0
MM5Z5B1	HC	4.998	5.1	5.202	5.0	130	5.0	2.0	1.5
MM5Z5B6	HD	5.488	5.6	5.712	5.0	80	5.0	1.0	2.5
MM5Z6B2	HE	6.076	6.2	6.324	5.0	50	5.0	1.0	3.0
MM5Z6B8	HF	6.664	6.8	6.936	5.0	30	5.0	0.5	3.5
MM5Z7B5	HH	7.350	7.5	7.650	5.0	30	5.0	0.5	4.0
MM5Z8B2	HJ	8.036	8.2	8.364	5.0	30	5.0	0.5	5.0
MM5Z9B1	HK	8.918	9.1	9.282	5.0	30	5.0	0.5	6.0
MM5ZB10	HM	9.80	10	10.20	5.0	30	5.0	0.1	7.0
MM5ZB11	HN	10.78	11	11.22	5.0	30	5.0	0.1	8.0
MM5ZB12	HP	11.76	12	12.24	5.0	35	5.0	0.1	9.0
MM5ZB13	HR	12.74	13	13.26	5.0	35	5.0	0.1	10
MM5ZB15	HX	14.70	15	15.30	5.0	40	5.0	0.1	11
MM5ZB16	HY	15.68	16	16.32	5.0	40	5.0	0.1	12
MM5ZB18	HZ	17.64	18	18.36	5.0	45	5.0	0.1	13
MM5ZB20	JA	19.60	20	20.40	5.0	50	5.0	0.1	15
MM5ZB22	JB	21.56	22	22.44	5.0	55	5.0	0.1	17
MM5ZB24	JC	23.52	24	24.48	5.0	60	5.0	0.1	19
MM5ZB27	JD	26.46	27	27.54	5.0	70	2.0	0.1	21
MM5ZB30	JE	29.40	30	30.60	5.0	80	2.0	0.1	23
MM5ZB33	JF	32.34	33	33.66	5.0	80	2.0	0.1	25
MM5ZB36	JH	35.28	36	36.72	5.0	90	2.0	0.1	27
MM5ZB39	JJ	38.22	39	39.78	2.5	100	2.0	2.0	30
MM5ZB43	JK	42.14	43	43.86	2.5	130	2.0	2.0	33
MM5ZB47	JM	46.06	47	47.94	2.5	150	2.0	2.0	36
MM5ZB51	YA	49.98	51	52.02	2.5	180	2.0	1.0	39
MM5ZB56	YB	54.88	56	57.12	2.5	180	2.0	1.0	43
MM5ZB62	YC	60.76	62	63.24	2.5	200	2.0	0.2	47
MM5ZB68	YD	66.64	68	69.36	2.5	250	2.0	0.2	52
MM5ZB75	YE	73.50	75	76.50	2.5	300	2.0	0.2	57

Note :

(1) Tested with pulses $t_p = 20$ ms.



Zener Diodes 0.25 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance		Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@ I _Z	I _R	@ V _R	γ _Z (mV/ °C)	I _Z
		min.	max.	(mA)	(Ω)	(mA)	(μA)	(V)		(mA)

HZK-LL Series, 0.25 W, Case Type : MiniMELF



HZK2LL	A	1.6	2.0	0.5	350	0.5	0.5	0.5	1.2	50
	B	1.9	2.3							
	C	2.2	2.6							
HZK3LL	A	2.5	2.9	0.5	360	0.5	0.5	1.0	1.2	50
	B	2.8	3.2							
	C	3.1	3.5							
HZK4LL	A	3.4	3.8	0.5	370	0.5	0.5	2.0	1.5	50
	B	3.7	4.1							
	C	4.0	4.4							
HZK5LL	A	4.3	4.7	0.5	380	0.5	0.5	3.0	1.5	50
	B	4.6	5.0							
	C	4.9	5.3							

* $\Delta V_{Z1} = V_Z (I_Z = 0.5 \text{ mA}) - V_{Z1} (I_Z = 0.05 \text{ mA})$

$\Delta V_{Z2} = V_{Z1} (I_Z = 0.05 \text{ mA}) - V_{Z2} (I_Z = 0.001 \text{ mA})$

Note:

(1) When placing an order for an HZK-LL type, enter "A", "B" or "C" suffix e.g. HZK2ALL, HZK2BLL ... HZK5CLL

Zener Diodes 0.25 W

Type No.	Grade	Zener Voltage V _Z @ I _{ZT}						Test Current	Maximum Dynamic Resistance		Maximum Reverse Current			
		Suffix -1		Suffix -2		Suffix -3								
		min.	max.	min.	max.	min.	max.	I _{ZT}	r _d	@	I _Z	I _R	@	V _R
		(V)	(V)	(V)	(V)	(V)	(V)	(mA)	(W)		(mA)	(μA)		(V)

HZS Series, 0.25 W, Case Type : DO-34



HZS2	A	1.6	1.8	1.7	1.9	1.8	2.0	5	100	5	25	0.5
	B	1.9	2.1	2.0	2.2	2.1	2.3	5	100	5	2	0.5
	C	2.2	2.4	2.3	2.5	2.4	2.6	5	100	5	1	0.5
HZS3	A	2.5	2.7	2.6	2.8	2.7	2.9	5	100	5	1	0.5
	B	2.8	3.0	2.9	3.1	3.0	3.2	5	100	5	1	0.5
	C	3.1	3.3	3.2	3.4	3.3	3.5	5	100	5	1	0.5
HZS4	A	3.4	3.6	3.5	3.7	3.6	3.8	5	100	5	5	1.00
	B	3.7	3.9	3.8	4.0	3.9	4.1	5	100	5	5	1.00
	C	4.0	4.2	4.1	4.3	4.2	4.4	5	100	5	5	1.00
HZS5	A	4.3	4.5	4.4	4.6	4.5	4.7	5	100	5	5	1.5
	B	4.6	4.8	4.7	4.9	4.8	5.0	5	100	5	5	1.5
	C	4.9	5.1	5.0	5.2	5.1	5.3	5	100	5	5	1.5
HZS6	A	5.2	5.5	5.3	5.6	5.4	5.7	5	35	5	5	2.0
	B	5.5	5.8	5.6	5.9	5.7	6.0	5	35	5	5	2.0
	C	5.8	6.1	6.0	6.3	6.1	6.4	5	35	5	5	2.0
HZS7	A	6.3	6.6	6.4	6.7	6.6	6.9	5	15	5	1	3.5
	B	6.7	7.0	6.9	7.2	7.0	7.3	5	15	5	1	3.5
	C	7.2	7.6	7.3	7.7	7.5	7.9	5	15	5	1	3.5
HZS9	A	7.7	8.1	7.9	8.3	8.1	8.5	5	20	5	1	5.0
	B	8.3	8.7	8.5	8.9	8.7	9.1	5	20	5	1	5.0
	C	8.9	9.3	9.1	9.5	9.3	9.7	5	20	5	1	5.0
HZS11	A	9.5	9.9	9.7	10.1	9.9	10.3	5	25	5	1	7.5
	B	10.2	10.6	10.4	10.8	10.7	11.1	5	25	5	1	7.5
	C	10.9	11.3	11.1	11.6	11.4	11.9	5	25	5	1	7.5
HZS12	A	11.6	12.1	11.9	12.4	12.2	12.7	5	35	5	1	9.5
	B	12.4	12.9	12.6	13.1	12.9	13.4	5	35	5	1	9.5
	C	13.2	13.7	13.5	14.0	13.8	14.3	5	35	5	1	9.5
HZS15		14.1	14.7	14.5	15.1	14.9	15.5	5	40	5	1	11
HZS16		15.3	15.9	15.7	16.5	16.3	17.1	5	45	5	1	12
HZS18		16.9	17.7	17.5	18.3	18.1	19.0	5	55	5	1	13
HZS20		18.8	19.7	19.5	20.4	20.2	21.1	2	60	2	1	15
HZS22		20.9	21.9	21.6	22.6	22.3	23.3	2	65	2	1	17
HZS24		22.9	24.0	23.6	24.7	24.3	25.5	2	70	2	1	19
HZS27		25.2	26.6	26.2	27.6	27.2	28.6	2	80	2	1	21
HZS30		28.2	29.6	29.2	30.6	30.2	31.6	2	100	2	1	23
HZS33		31.2	32.6	32.2	33.6	33.2	34.6	2	120	2	1	25
HZS36		34.2	35.7	35.3	36.8	36.4	38.0	2	140	2	1	27

Note :

The lower voltage types (HZS2 - HZS12) are available in 3 grades, "A" to "C", each with suffix "-1", "-2" or "-3"

For example the type with $V_Z = 8.5 - 8.9V$ is HZS9B-2

The higher voltage types are only available with suffix "-1", "-2" or "-3" (no grade) e.g. HZS30-3



Zener Diodes 0.25 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance			Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@	I _Z	I _R	@	V _R	γ _Z (mV/ °C)
		min.	max.	(mA)	(Ω)		(mA)	(μA)		(V)	I _Z (mA)

HZS-LL Series, 0.25 W, Case Type : DO-34



HZS2LL	A	1.6	2.0	0.5	100	0.5	350	0.5	1.2	50
	B	1.9	2.3							
	C	2.2	2.6							
HZS3LL	A	2.5	2.9	0.5	100	1.0	360	0.5	1.2	50
	B	2.8	3.2							
	C	3.1	3.5							
HZS4LL	A	3.4	3.8	0.5	100	2.0	370	0.5	1.5	50
	B	3.7	4.1							
	C	4.0	4.4							
HZS5LL	A	4.3	4.7	0.5	100	3.0	380	0.5	1.5	50
	B	4.6	5.0							
	C	4.9	5.3							

* $\Delta V_{Z1} = V_Z (I_Z = 0.5 \text{ mA}) - V_{Z1} (I_Z = 0.05 \text{ mA})$

$\Delta V_{Z1} = V_{Z1} (I_Z = 0.5 \text{ mA}) - V_{Z2} (I_Z = 0.05 \text{ mA})$

Note:

(1) When placing an order for HZS-LL type, enter suffix "A", "B" or "C" e.g. HZS2ALL, HZS2BLL HZS5CLL



Zener Diodes 0.30 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ⁽¹⁾			Test Current	Zener Impedance ⁽²⁾	Test Current	Leakage Current		Temp. coefficient of Zener Voltage	
		V _Z	@ I _{ZT}	(V)	I _{ZT}	Z _Z @ I _Z	I _Z	I _R	@ V _R	TKvz (%/K)	
		Min.	Nom.	Max.	(mA)	(Ω)	(mA)	(μA)	(V)	Min.	Max.

MM3Z2V0 Series, 0.3 W, Case Type : SOD-323



MM3Z2V0	B0	1.80	2.0	2.15	5.0	100	5.0	120	0.5	-0.09	-0.06
MM3Z2V2	C0	2.08	2.2	2.33	5.0	100	5.0	120	0.7	-0.09	-0.06
MM3Z2V4	1C	2.28	2.4	2.56	5.0	100	5.0	120	1.0	-0.09	-0.06
MM3Z2V7	1D	2.5	2.7	2.9	5.0	110	5.0	120	1.0	-0.09	-0.06
MM3Z3V0	1E	2.8	3.0	3.2	5.0	120	5.0	50	1.0	-0.08	-0.05
MM3Z3V3	1F	3.1	3.3	3.5	5.0	130	5.0	20	1.0	-0.08	-0.05
MM3Z3V6	1H	3.4	3.6	3.8	5.0	130	5.0	10	1.0	-0.08	-0.05
MM3Z3V9	1J	3.7	3.9	4.1	5.0	130	5.0	5.0	1.0	-0.08	-0.05
MM3Z4V3	1K	4.0	4.3	4.6	5.0	130	5.0	5.0	1.0	-0.06	-0.03
MM3Z4V7	1M	4.4	4.7	5.0	5.0	130	5.0	2.0	1.0	-0.05	+0.02
MM3Z5V1	1N	4.8	5.1	5.4	5.0	130	5.0	2.0	1.5	-0.02	+0.02
MM3Z5V6	1P	5.2	5.6	6.0	5.0	80	5.0	1.0	2.5	-0.05	+0.05
MM3Z6V2	1R	5.8	6.2	6.6	5.0	50	5.0	1.0	3.0	0.03	0.06
MM3Z6V8	1X	6.4	6.8	7.2	5.0	30	5.0	0.5	3.5	0.03	0.07
MM3Z7V5	1Y	7.0	7.5	7.9	5.0	30	5.0	0.5	4.0	0.03	0.07
MM3Z8V2	1Z	7.7	8.2	8.7	5.0	30	5.0	0.5	5.0	0.03	0.08
MM3Z9V1	2A	8.5	9.1	9.6	5.0	30	5.0	0.5	6.0	0.03	0.09
MM3Z10	2B	9.4	10	10.6	5.0	30	5.0	0.1	7.0	0.03	0.10
MM3Z11	2C	10.4	11	11.6	5.0	30	5.0	0.1	8.0	0.03	0.11
MM3Z12	2D	11.4	12	12.7	5.0	35	5.0	0.1	9.0	0.03	0.11
MM3Z13	2E	12.4	13	14.1	5.0	35	5.0	0.1	10	0.03	0.11
MM3Z15	2F	13.8	15	15.8	5.0	40	5.0	0.1	11	0.03	0.11
MM3Z16	2H	15.3	16	17.1	5.0	40	5.0	0.1	12	0.03	0.11
MM3Z18	2J	16.8	18	19.1	5.0	45	5.0	0.1	13	0.03	0.11
MM3Z20	2K	18.8	20	21.2	5.0	50	5.0	0.1	15	0.03	0.11
MM3Z22	2M	20.8	22	23.3	5.0	55	5.0	0.1	17	0.04	0.12
MM3Z24	2N	22.8	24	25.6	5.0	60	2.0	0.1	19	0.04	0.12
MM3Z27	2P	25.1	27	28.9	5.0	70	2.0	0.1	21	0.04	0.12
MM3Z30	2R	28	30	32	5.0	80	2.0	0.1	23	0.04	0.12
MM3Z33	2X	31	33	35	5.0	80	2.0	0.1	25	0.04	0.12
MM3Z36	2Y	34	36	38	5.0	90	2.0	0.1	27	0.04	0.12
MM3Z39	2Z	37	39	41	2.5	100	2.0	2.0	30	0.04	0.12
MM3Z43	3A	40	43	46	2.5	130	2.0	2.0	33	0.04	0.12
MM3Z47	3B	44	47	50	2.5	150	2.0	2.0	36	0.04	0.12
MM3Z51	3C	48	51	54	2.5	180	2.0	1.0	39	0.04	0.12
MM3Z56	3D	52	56	60	2.5	180	2.0	1.0	43	0.04	0.12
MM3Z62	3E	58	62	66	2.5	200	2.0	0.2	47	0.04	0.12
MM3Z68	3F	64	68	72	2.5	250	2.0	0.2	52	0.04	0.12
MM3Z75	3H	70	75	79	2.5	300	2.0	0.2	57	0.04	0.12
MM3Z82	3J	77	82	87	2.5	300	2.0	0.2	63	0.05	0.12
MM3Z91	3K	85	91	96	1.0	700	1.0	0.2	69	0.05	0.12
MM3Z100	3M	94	100	106	1.0	700	1.0	0.2	76	0.05	0.12
MM3Z110	3N	104	110	116	1.0	800	1.0	0.2	84	0.05	0.12
MM3Z120	3P	114	120	127	1.0	900	1.0	0.2	91	0.05	0.12

Note :

(1) V_Z is tested with pulses (20 ms).



Zener Diodes 0.30 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ⁽¹⁾			Test Current	Dynamic Impedance ⁽²⁾	Test Current	Reverse Leakage Current		Temp. coefficient of Zener Voltage	
		V _Z	@ I _{ZT}	(V)	I _{ZT}	Z _Z @ I _Z	I _Z	I _R	@ V _R	TK _{VZ} (%/K)	
		Min.	Nom.	Max.	(mA)	(Ω)	(mA)	(μA)	(V)	Min.	Max.

MM3Z2V2B Series, 0.3 W, Case Type : SOD-323



MM3Z2V2B	MF	2.08	2.2	2.33	5	100	5	120	0.7	-0.09	-0.06
MM3Z2V4B	7C	2.30	2.4	2.65	5	100	5	120	1.0	-0.09	-0.06
MM3Z2V7B	7D	2.65	2.7	2.95	5	110	5	120	1.0	-0.09	-0.06
MM3Z3V0B	7E	2.95	3.0	3.25	5	120	5	50	1.0	-0.08	-0.05
MM3Z3V3B	7F	3.25	3.3	3.55	5	120	5	20	1.0	-0.08	-0.05
MM3Z3V6B	7H	3.60	3.6	3.845	5	100	5	10	1.0	-0.08	-0.05
MM3Z3V9B	7J	3.89	3.9	4.16	5	100	5	5	1.0	-0.08	-0.05
MM3Z4V3B	7K	4.17	4.3	4.43	5	100	5	5	1.0	-0.06	-0.03
MM3Z4V7B	7M	4.55	4.7	4.75	5	100	5	2	1.0	-0.05	+0.02
MM3Z5V1B	7N	4.98	5.1	5.20	5	80	5	2	1.5	-0.02	+0.02
MM3Z5V6B	7P	5.49	5.6	5.73	5	60	5	1	2.5	-0.05	+0.05
MM3Z6V2B	7R	6.06	6.2	6.33	5	60	5	1	3.0	0.03	0.06
MM3Z6V8B	7X	6.65	6.8	6.93	5	40	5	0.5	3.5	0.03	0.07
MM3Z7V5B	7Y	7.28	7.5	7.60	5	30	5	0.5	4.0	0.03	0.07
MM3Z8V2B	7Z	8.02	8.2	8.36	5	30	5	0.5	5.0	0.03	0.08
MM3Z9V1B	8A	8.85	9.1	9.23	5	30	5	0.5	6.0	0.03	0.09
MM3Z10B	8B	9.77	10	10.21	5	30	5	0.1	7.0	0.03	0.10
MM3Z11B	8C	10.76	11	11.22	5	30	5	0.1	8.0	0.03	0.11
MM3Z12B	8D	11.74	12	12.24	5	30	5	0.1	9.0	0.03	0.11
MM3Z13B	8E	12.91	13	13.49	5	37	5	0.1	10	0.03	0.11
MM3Z15B	8F	14.34	15	14.98	5	42	5	0.1	11	0.03	0.11
MM3Z16B	8H	15.85	16	16.51	5	50	5	0.1	12	0.03	0.11
MM3Z18B	8J	17.56	18	18.35	5	65	5	0.1	13	0.03	0.11
MM3Z20B	8K	19.52	20	20.39	5	85	5	0.1	15	0.03	0.11
MM3Z22B	8M	21.54	22	22.47	5	100	5	0.1	17	0.04	0.12
MM3Z24B	8N	23.72	24	24.78	5	120	5	0.1	19	0.04	0.12
MM3Z27B	8P	26.19	27	27.53	5	150	2	0.1	21	0.04	0.12
MM3Z30B	8R	29.19	30	30.69	5	200	2	0.1	23	0.04	0.12
MM3Z33B	8X	32.15	33	33.79	5	250	2	0.1	25	0.04	0.12
MM3Z36B	8Y	35.07	36	36.87	5	300	2	0.1	27	0.04	0.12
MM3Z39B	8Z	37.00	39	41.00	5	100	2	2.0	30	0.04	0.12

Notes :

(1) V_Z is tested with pulses (20 ms).

(2) Z_Z is measured at I_Z by given a very small A.C. current signal.



Zener Diodes 0.35 W

The plastic material carries U/L recognition 94V-0.

TYPE NO.	Marking	V_{Z1} @ $I_{ZT1} = 5 \text{ mA}$ (Note 1)			Z_{ZT1} @ $I_{ZT1} = 5 \text{ mA}$	V_{Z2} @ $I_{ZT2} = 1 \text{ mA}$ (Note 1)		Z_{ZT2} @ $I_{ZT2} = 1 \text{ mA}^{(2)}$	V_{Z3} @ $I_{ZT3} = 20 \text{ mA}$ (Note 1)		Z_{ZT3} @ $I_{ZT3} = 20 \text{ mA}$	Max. Reverse Leakage Current I_R @ V_R		Θ_{VZ} (mV/k) @ $I_{ZT1} = 5 \text{ mA}$		C (pF) @ $V_R = 0$ $f = 1 \text{ MHz}$
		(V)			(Ω)	(V)		(Ω)	(V)		(Ω)					
		Min	Nom	Max		Min	Max		Min	Max		(μA)	(V)	Min	Max	

BZX84Bxx Series, 0.35 W, Case Type : SOT-23



BZX84B2V4	CR	2.35	2.4	2.45	100	1.7	2.1	600	2.6	3.2	50	50	1.0	-3.5	0	450
BZX84B2V7	CX	2.64	2.7	2.76	100	1.9	2.4	600	3.0	3.6	50	20	1.0	-3.5	0	450
BZX84B3V0	CY	2.94	3.0	3.06	95	2.1	2.7	600	3.3	3.9	50	10	1.0	-3.5	0	450
BZX84B3V3	CZ	3.23	3.3	3.37	95	2.3	2.9	600	3.6	4.2	40	5	1.0	-3.5	0	450
BZX84B3V6	DA	3.52	3.6	3.68	90	2.7	3.3	600	3.9	4.5	40	5	1.0	-3.5	0	450
BZX84B3V9	DB	3.82	3.9	3.98	90	2.9	3.5	600	4.1	4.7	30	3	1.0	-3.5	-2.5	450
BZX84B4V3	DC	4.21	4.3	4.39	90	3.3	4.0	600	4.4	5.1	30	3	1.0	-3.5	0	450
BZX84B4V7	DD	4.60	4.7	4.8	80	3.7	4.7	500	4.5	5.4	15	3	2.0	-3.5	0.2	260
BZX84B5V1	DE	4.99	5.1	5.2	60	4.2	5.3	480	5.0	5.9	15	2	2.0	-2.7	1.2	225
BZX84B5V6	DF	5.49	5.6	5.71	40	4.8	6.0	400	5.2	6.3	10	1	2.0	-2.0	2.5	200
BZX84B6V2	DH	6.07	6.2	6.32	10	5.6	6.6	150	5.8	6.8	6	3	4.0	0.4	3.7	185
BZX84B6V8	DJ	6.66	6.8	6.94	15	6.3	7.2	80	6.4	7.4	6	2	4.0	1.2	4.5	155
BZX84B7V5	DK	7.35	7.5	7.65	15	6.9	7.9	80	7.0	8.0	6	1	5.0	2.5	5.3	140
BZX84B8V2	DM	8.04	8.2	8.36	15	7.6	8.7	80	7.7	8.8	6	0.7	5.0	3.2	6.2	135
BZX84B9V1	DN	8.92	9.1	9.28	15	8.4	9.6	100	8.5	9.7	8	0.5	6.0	3.8	7.0	130
BZX84B10	DP	9.80	10	10.2	20	9.3	10.6	150	9.4	10.7	10	0.2	7.0	4.5	8.0	130
BZX84B11	DR	10.8	11	11.2	20	10.2	11.6	150	10.4	11.8	10	0.1	8.0	5.4	9.0	130
BZX84B12	DX	11.8	12	12.2	25	11.2	12.7	150	11.4	12.9	10	0.1	8.0	6.0	10.0	130
BZX84B13	DY	12.7	13	13.3	30	12.3	14.0	170	12.5	14.2	15	0.1	8.0	7.0	11.0	120
BZX84B15	DZ	14.7	15	15.3	30	13.7	15.5	200	13.9	15.7	20	0.05	10.5	9.2	13.0	110
BZX84B16	EA	15.7	16	16.3	40	15.2	17.0	200	15.4	17.2	20	0.05	11.2	10.4	14.0	105
BZX84B18	EB	17.6	18	18.4	45	16.7	19.0	225	16.9	19.2	20	0.05	12.6	12.4	16.0	100
BZX84B20	EC	19.6	20	20.4	55	18.7	21.1	225	18.9	21.4	20	0.05	14.0	14.4	18.0	85
BZX84B22	ED	21.6	22	22.5	55	20.7	23.2	250	20.9	23.4	25	0.05	15.4	16.4	20.0	85
BZX84B24	EE	23.5	24	24.5	70	22.7	25.5	250	22.9	25.7	25	0.05	16.8	18.4	22.0	80
TYPE NO.	Marking	V_{Z1} Below @ $I_{ZT1} = 2 \text{ mA}$ (Note 1)			Z_{ZT1} Below @ $I_{ZT1} = 2 \text{ mA}$	V_{Z2} Below @ $I_{ZT2} = 0.1 \text{ mA}$ (Note 1)		Z_{ZT2} Below @ $I_{ZT4} = 0.5 \text{ mA}$	V_{Z3} Below @ $I_{ZT3} = 10 \text{ mA}$ (Note 1)		Z_{ZT3} Below @ $I_{ZT3} = 10 \text{ mA}$	Max. Reverse Leakage Current I_R @ V_R		Θ_{VZ} (mV/k) Below @ $I_{ZT1} = 2 \text{ mA}$		C (pF) @ $V_R = 0$ $f = 1 \text{ MHz}$
		(V)			(Ω)	(V)		(Ω)	(V)		(Ω)					
		Min	Nom	Max		Min	Max		Min	Max		(μA)	(V)	Min	Max	
BZX84B27	EF	26.4	27	27.6	80	25	28.9	300	25.2	29.3	45	0.05	18.9	21.4	25.3	70
BZX84B30	EH	29.4	30	30.6	80	27.8	32	300	28.1	32.4	50	0.05	21.0	24.4	29.4	70
BZX84B33	EJ	32.3	33	33.7	80	30.8	35	325	31.1	35.4	55	0.05	23.1	27.4	33.4	70
BZX84B36	EK	35.2	36	36.8	90	33.8	38	350	34.1	38.4	60	0.05	25.2	30.4	37.4	70
BZX84B39	EM	38.2	39	39.8	130	36.7	41	35	37.1	41.5	70	0.05	27.3	33.4	41.2	45
BZX84B43	EN	42.1	43	43.9	150	39.7	46	375	40.1	46.5	80	0.05	30.1	37.6	46.6	40
BZX84B47	EP	46.0	47	48	170	43.7	50	375	44.1	50.5	90	0.05	32.9	42.0	51.8	40

Notes :

(1) Tested with pulses $t_p = 20 \text{ ms}$.

(1) The Zener impedance, Z_{ZT2} for the 27 through 75 volt types is tested at 0.5 mA rather than the test current of 0.1mA used for V_{Z2}



Zener Diodes 0.35 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking Code	Zener Voltage ⁽¹⁾		Test Current	Max. Dynamic Resistance		Test Current	Maximum Reverse Voltage		Maximum Zener Current
		$V_Z @ I_{ZT}$ (V)		I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R at V_R		I_{ZM}
		Min.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)	(mA)

BZX84CxxCA Series, 0.35 W, Case Type : SOT-23



BZX84C3V0CA	MR	2.8	3.2	5.0	100	600	1.0	4.0	1.0	109
BZX84C3V3CA	MX	3.1	3.5	5.0	95	600	1.0	2.0	1.0	100
BZX84C3V6CA	MY	3.4	3.8	5.0	95	600	1.0	2.0	1.0	92
BZX84C3V9CA	MZ	3.7	4.1	5.0	90	600	1.0	2.0	1.0	85
BZX84C4V3CA	NA	4.0	4.6	5.0	90	600	1.0	1.0	1.0	76
BZX84C4V7CA	NB	4.4	5.0	5.0	80	500	1.0	3.0	2.0	70
BZX84C5V1CA	NC	4.8	5.4	5.0	60	480	1.0	2.0	2.0	65
BZX84C5V6CA	ND	5.2	6.0	5.0	40	400	1.0	1.0	2.0	58
BZX84C6V2CA	NE	5.8	6.6	5.0	10	150	1.0	3.0	4.0	53
BZX84C6V8CA	NF	6.4	7.2	5.0	10	80	1.0	2.0	4.0	49
BZX84C7V5CA	NH	7.0	7.9	5.0	10	80	1.0	1.0	5.0	44
BZX84C8V2CA	NJ	7.7	8.7	5.0	10	80	1.0	0.7	5.0	40
BZX84C9V1CA	NK	8.5	9.6	5.0	15	100	1.0	0.5	6.0	36
BZX84C10CA	NM	9.4	10.6	5.0	20	150	1.0	0.2	7.0	33
BZX84C11CA	NN	10.4	11.6	5.0	20	150	1.0	0.1	8.0	30
BZX84C12CA	NP	11.4	12.7	5.0	25	150	1.0	0.1	8.0	28
BZX84C13CA	NX	12.4	14.1	5.0	30	170	1.0	0.1	8.0	25
BZX84C15CA	NY	13.8	15.6	5.0	30	200	1.0	0.05	10	22
BZX84C16CA	NZ	15.3	17.1	5.0	40	200	1.0	0.05	11	20
BZX84C18CA	PA	16.8	19.1	5.0	50	225	1.0	0.05	13	18
BZX84C20CA	PB	18.8	21.2	5.0	50	225	1.0	0.05	14	17
BZX84C22CA	PC	20.8	23.3	5.0	55	250	1.0	0.05	15	15
BZX84C24CA	PD	22.8	25.6	5.0	80	250	1.0	0.05	17	14
BZX84C27CA	PE	25.1	28.9	2.0	80	300	0.5	0.05	19	12
BZX84C30CA	PF	28	32	2.0	80	300	0.5	0.05	21	11
BZX84C33CA	PH	31	35	2.0	80	325	0.5	0.05	23	10
BZX84C36CA	PJ	34	38	2.0	90	350	0.5	0.05	25	9
BZX84C39CA	PM	37	41	2.0	90	350	0.5	0.05	27	9
BZX84C43CA	PN	40	46	2.0	100	375	0.5	0.05	30	8
BZX84C47CA	PP	44	50	2.0	100	375	0.5	0.05	33	7

Note : (1) Tested with pulses $t_p = 20$ ms.



Zener Diodes 0.35 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking Code	Zener Voltage ⁽¹⁾			Test Current	Max. Dynamic Resistance	Maximum Reverse Voltage	
		$V_Z @ I_{ZT}$ (V)			I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_R at	V_R
		Min.	Nom.	Max.	(mA)	(Ω)	(μA)	(V)

BZX84CxxCC Series, 0.35 W, Case Type : SOT-23



BZX84C2V4CC	JH	2.2	2.4	2.6	5.0	100	50	1.0
BZX84C2V7CC	JJ	2.5	2.7	2.9	5.0	100	20	1.0
BZX84C3V0CC	JK	2.8	3.0	3.2	5.0	95	10	1.0
BZX84C3V3CC	JM	3.1	3.3	3.5	5.0	95	5.0	1.0
BZX84C3V6CC	JN	3.4	3.6	3.8	5.0	90	5.0	1.0
BZX84C3V9CC	JP	3.7	3.9	4.1	5.0	90	3.0	1.0
BZX84C4V3CC	JR	4.0	4.3	4.6	5.0	90	3.0	1.0
BZX84C4V7CC	JX	4.4	4.7	5.0	5.0	80	3.0	2.0
BZX84C5V1CC	JY	4.8	5.1	5.4	5.0	60	2.0	2.0
BZX84C5V6CC	JZ	5.2	5.6	6.0	5.0	40	1.0	2.0
BZX84C6V2CC	KA	5.8	6.2	6.6	5.0	10	3.0	4.0
BZX84C6V8CC	KB	6.4	6.8	7.2	5.0	15	2.0	4.0
BZX84C7V5CC	KC	7.0	7.5	7.9	5.0	15	1.0	5.0
BZX84C8V2CC	KD	7.7	8.2	8.7	5.0	15	0.7	5.0
BZX84C9V1CC	KE	8.5	9.1	9.6	5.0	15	0.5	6.0
BZX84C10CC	KF	9.4	10	10.6	5.0	20	0.2	7.0
BZX84C11CC	KH	10.4	11	11.6	5.0	20	0.1	8.0
BZX84C12CC	KJ	11.4	12	12.7	5.0	25	0.1	8.0
BZX84C13CC	KK	12.4	13	14.1	5.0	30	0.1	8.0
BZX84C15CC	KM	13.8	15	15.6	5.0	30	0.05	10.5
BZX84C16CC	KN	15.3	16	17.1	5.0	40	0.05	11.2
BZX84C18CC	KP	16.8	18	19.1	5.0	45	0.05	12.6
BZX84C20CC	KR	18.8	20	21.2	5.0	55	0.05	14.0
BZX84C22CC	KX	20.8	22	23.3	5.0	55	0.05	15.4
BZX84C24CC	KY	22.8	24	25.6	5.0	70	0.05	16.8
BZX84C27CC	KZ	25.1	27	28.9	2.0	80	0.05	18.9
BZX84C30CC	MA	28	30	32	2.0	80	0.05	21.0
BZX84C33CC	MB	31	33	35	2.0	80	0.05	23.1
BZX84C36CC	MC	34	36	38	2.0	90	0.05	25.2
BZX84C39CC	MD	37	39	41	2.0	130	0.05	27.3
BZX84C43CC	ME	40	43	46	2.0	150	0.05	30.1
BZX84C47CC	MF	44	47	50	2.0	170	0.05	32.9
BZX84C51CC	MH	48	51	54	2.0	180	0.05	35.7
BZX84C56CC	MJ	52	56	60	2.0	200	0.05	39.2
BZX84C62CC	MK	58	62	66	2.0	215	0.05	43.4
BZX84C68CC	MM	64	68	72	2.0	240	0.05	47.6
BZX84C75CC	MN	70	75	79	2.0	255	0.05	52.5

Note : (1) Tested with pulses $t_p = 20$ ms.



Zener Diodes 0.35 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ⁽¹⁾			Test Current	Maximum Zener Impedance		Test Current	Maximum Reverse Leakage Current	
		V _Z	@ I _{ZT}	(V)	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R	
		Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)

MMBZ5221B Series, 0.35 W, Case Type : SOT-23



MMBZ5221B	Y0	2.28	2.4	2.52	20	30	1200	0.25	100	1.0
MMBZ5223B	Z0	2.57	2.7	2.84	20	30	1300	0.25	75	1.0
MMBZ5225B	AA	2.85	3.0	3.15	20	29	1600	0.25	50	1.0
MMBZ5226B	AB	3.14	3.3	3.47	20	28	1600	0.25	25	1.0
MMBZ5227B	AC	3.42	3.6	3.78	20	24	1700	0.25	15	1.0
MMBZ5228B	AD	3.71	3.9	4.10	20	23	1900	0.25	10	1.0
MMBZ5229B	AE	4.09	4.3	4.52	20	22	2000	0.25	5	1.0
MMBZ5230B	AF	4.47	4.7	4.94	20	19	1900	0.25	5	2.0
MMBZ5231B	AH	4.85	5.1	5.36	20	17	1600	0.25	5	2.0
MMBZ5232B	AJ	5.32	5.6	5.88	20	11	1600	0.25	5	3.0
MMBZ5233B	AK	5.70	6.0	6.30	20	7	1600	0.25	5	3.5
MMBZ5234B	AM	5.89	6.2	6.51	20	7	1000	0.25	5	4.0
MMBZ5235B	AN	6.46	6.8	7.14	20	5	750	0.25	3	5.0
MMBZ5236B	AP	7.13	7.5	7.88	20	6	500	0.25	3	6.0
MMBZ5237B	AR	7.79	8.2	8.61	20	8	500	0.25	3	6.5
MMBZ5238B	AX	8.27	8.7	9.14	20	8	600	0.25	3	6.5
MMBZ5239B	AY	8.65	9.1	9.56	20	10	600	0.25	3	7.0
MMBZ5240B	AZ	9.50	10	10.50	20	17	600	0.25	3	8.0
MMBZ5241B	BA	10.45	11	11.50	20	22	600	0.25	2	8.4
MMBZ5242B	BB	11.40	12	12.60	20	30	600	0.25	1	9.1
MMBZ5243B	BC	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MMBZ5245B	BE	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MMBZ5246B	BF	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MMBZ5247B	BH	16.15	17	17.85	7.4	19	600	0.25	0.1	13
MMBZ5248B	BJ	17.10	18	18.90	7.0	21	600	0.25	0.1	14
MMBZ5249B	BK	18.05	19	19.95	6.6	23	600	0.25	0.1	14
MMBZ5250B	BM	19.00	20	21.00	6.2	25	600	0.25	0.1	15
MMBZ5251B	BN	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MMBZ5252B	BP	22.80	24	25.20	5.2	33	600	0.25	0.1	18
MMBZ5253B	BR	23.75	25	26.25	5.0	35	600	0.25	0.1	19
MMBZ5254B	BX	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MMBZ5255B	BY	26.60	28	29.40	4.5	44	600	0.25	0.1	21
MMBZ5256B	BZ	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MMBZ5257B	CA	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MMBZ5258B	CB	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MMBZ5259B	CC	37.05	39	40.95	3.2	80	800	0.25	0.1	30
MMBZ5260B	CD	40.85	43	45.15	3.0	93	900	0.25	0.1	33
MMBZ5261B	CE	44.65	47	49.35	2.7	105	1000	0.25	0.1	36

Note :

(1) Tested with pulses tp = 20 ms



Zener Diodes 0.40 W

Type No.	Grade	Zener Voltage V _Z @ I _{ZT}						Test Current	Maximum Dynamic Resistance		Maximum Reverse Current				
		Suffix -1		Suffix -2		Suffix -3									
		min.	max.	min.	max.	min.	max.						I _{ZT}	rd @ I _Z	I _R @ V _R
		(V)	(V)	(V)	(V)	(V)	(V)						(mA)	(Ω) (mA)	(μA) (V)

HZ6L Series, 0.4 W, Case Type : DO-35



HZ6L	A	5.2	5.5	5.3	5.6	5.4	5.7	0.5	150	0.5	1	2.0
	B	5.5	5.8	5.6	5.9	5.7	6.0	0.5	80	0.5	1	2.0
	C	5.8	6.1	6.0	6.3	6.1	6.4	0.5	60	0.5	1	2.0
HZ7L	A	6.3	6.6	6.4	6.7	6.6	6.9	0.5	60	0.5	1	3.5
	B	6.7	7.0	6.9	7.2	7.0	7.3	0.5	60	0.5	1	3.5
	C	7.2	7.6	7.3	7.7	7.5	7.9	0.5	60	0.5	1	3.5
HZ9L	A	7.7	8.1	7.9	8.3	8.1	8.5	0.5	60	0.5	1	6.0
	B	8.3	8.7	8.5	8.9	8.7	9.1	0.5	60	0.5	1	6.0
	C	8.9	9.3	9.1	9.5	9.3	9.7	0.5	60	0.5	1	6.0
HZ11L	A	9.5	9.9	9.7	10.1	9.9	10.3	0.5	80	0.5	1	8.0
	B	10.2	10.6	10.4	10.8	10.7	11.1	0.5	80	0.5	1	8.0
	C	10.9	11.3	11.1	11.6	11.4	11.9	0.5	80	0.5	1	8.0
HZ12L	A	11.6	12.1	11.9	12.4	12.2	12.7	0.5	80	0.5	1	10.5
	B	12.4	12.9	12.6	13.1	12.9	13.4	0.5	80	0.5	1	10.5
	C	13.2	13.7	13.5	14.0	13.8	14.3	0.5	80	0.5	1	10.5
HZ15L		14.1	14.7	14.5	15.1	14.9	15.5	0.5	80	0.5	1	13.0
HZ16L		15.3	15.9	15.7	16.5	16.3	17.1	0.5	80	0.5	1	14.0
HZ18L		16.9	17.7	17.5	18.3	18.1	19.0	0.5	80	0.5	1	15.0
HZ20L		18.8	19.7	19.5	20.4	20.2	21.1	0.5	100	0.5	1	18.0
HZ22L		20.9	21.9	21.6	22.6	22.3	23.3	0.5	100	0.5	1	20.0
HZ24L		22.9	24.0	23.6	24.7	24.3	25.5	0.5	120	0.5	1	22.0
HZ27L		25.2	26.6	26.2	27.6	27.2	28.6	0.5	150	0.5	1	24.0
HZ30L		28.2	29.6	29.2	30.6	30.2	31.6	0.5	200	0.5	1	27.0
HZ33L		31.2	32.6	32.2	33.6	33.2	34.6	0.5	250	0.5	1	30.0
HZ36L		34.2	35.7	35.3	36.8	36.4	38.0	0.5	300	0.5	1	33.0

Note :

The lower voltage types (HZ6L - HZ12L) are available in 3 grades, "A" to "C", each with suffix "-1", "-2" or "-3"

For example the type with $V_Z = 8.5 - 8.9V$ is HZ9B2L

The higher voltage types are only available with suffix "-1", "-2" or "-3" (no grade) e.g. HZ30-3L



Zener Diodes 0.40 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance		Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@ I _Z	I _R	@ V _R	γ _Z (mV/ °C)	I _Z
		min.	max.	(mA)	(Ω)	(mA)	(μA)	(V)		(mA)

HZK-L Series, 0.4 W, Case Type : Mini MELF



HZK6L	A1	5.2	5.5	0.5	150	0.5	1	2.0	1.0	0.5	
	A2	5.3	5.6		80						
	A3	5.4	5.7								
	B1	5.5	5.8								
	B2	5.6	5.9								
	B3	5.7	6.0								
	C1	5.8	6.1								
	C2	6.0	6.3								
	C3	6.1	6.4								60
HZK7L	A1	6.3	6.6	0.5	60	0.5	1	3.5	2.0	0.5	
	A2	6.4	6.7								
	A3	6.6	6.9								
	B1	6.7	7.0								
	B2	6.9	7.2								
	B3	7.0	7.3								
	C1	7.2	7.6								
	C2	7.3	7.7								
	C3	7.5	7.9								0.5
HZK9L	A1	7.7	8.1								
	A2	7.9	8.3								
	A3	8.1	8.5								
	B1	8.3	8.7								
	B2	8.5	8.9								
	B3	8.7	9.1								
	C1	8.9	9.3								
	C2	9.1	9.5								
	C3	9.3	9.7	0.5	80	0.5	1	8.0	5.0	0.5	
HZK11L	A1	9.5	9.9								
	A2	9.7	10.1								
	A3	9.9	10.3								
	B1	10.2	10.6								
	B2	10.4	10.8								
	B3	10.7	11.1								
	C1	10.9	11.3								
	C2	11.1	11.6								
	C3	11.4	11.9	0.5	80	0.5	1	10.5	7.0	0.5	
HZK12L	A1	11.6	12.1								
	A2	11.9	12.4								
	A3	12.2	12.7								
	B1	12.4	12.9								
	B2	12.6	13.1								
	B3	12.9	13.4								
	C1	13.2	13.7								
	C2	13.5	14.0								
	C3	13.8	14.3								

Note : (1) When placing an order for HZK-L type, enter suffix as follows: HZK6A1L, HZK6A2L.....HZK36-3L



Zener Diodes 0.40 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance		Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@ I _Z	I _R	@ V _R	γ _Z (mV/ °C)	I _Z
		min.	max.	(mA)	(Ω)	(mA)	(μA)	(V)		(mA)

HZK-L Series, 0.4 W, Case Type : Mini MELF



HZK15L	1	14.1	14.7	0.5	80	0.5	1	13.0	9.0	0.5
	2	14.5	15.1							
	3	14.9	15.5							
HZK16L	1	15.3	15.9	0.5	80	0.5	1	14.0	10.0	0.5
	2	15.7	16.5							
	3	16.3	17.1							
HZK18L	1	16.9	17.7	0.5	80	0.5	1	15.0	12.0	0.5
	2	17.5	18.3							
	3	18.1	19.0							
HZK20L	1	18.8	19.7	0.5	100	0.5	1	18.0	14.0	0.5
	2	19.5	20.4							
	3	20.2	21.1							
HZK22L	1	20.9	21.9	0.5	100	0.5	1	20.0	16.0	0.5
	2	21.6	22.6							
	3	22.3	23.3							
HZK24L	1	22.9	24.0	0.5	120	0.5	1	22.0	18.0	0.5
	2	23.6	24.7							
	3	24.3	25.5							
HZK27L	1	25.2	26.6	0.5	150	0.5	1	24.0	20.0	0.5
	2	26.2	27.6							
	3	27.2	28.6							
HZK30L	1	28.2	29.6	0.5	200	0.5	1	27.0	23.0	0.5
	2	29.2	30.6							
	3	30.2	31.6							
HZK33L	1	31.2	32.6	0.5	250	0.5	1	30.0	26.0	0.5
	2	32.2	33.6							
	3	33.2	34.6							
HZK36L	1	34.2	35.7	0.5	300	0.5	1	33.0	30.0	0.5
	2	35.3	36.8							
	3	36.4	38.0							

Note:

(1) When placing an order for HZK-L type, enter suffix as follows: HZK6A1L, HZK6A2L....HZK36-3L



Zener Diodes 0.40 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance		Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@ I _Z	I _R	@ V _R	γ _Z (mV/ °C)	I _Z
		min.	max.	(mA)	(Ω)	(mA)	(μA)	(V)		(mA)

HZS-L Series, 0.4 W, Case Type : DO-34



HZS6L	A1	5.2	5.5	0.5	150	0.5	1	2.0	2.0	0.5
	A2	5.3	5.6							
	A3	5.4	5.7							
	B1	5.5	5.8							
	B2	5.6	5.9							
	B3	5.7	6.0							
	C1	5.8	6.1							
	C2	6.0	6.3							
	C3	6.1	6.4							
HZS7L	A1	6.3	6.6	0.5	60	0.5	1	3.5	3.0	0.5
	A2	6.4	6.7							
	A3	6.6	6.9							
	B1	6.7	7.0							
	B2	6.9	7.2							
	B3	7.0	7.3							
	C1	7.2	7.6							
	C2	7.3	7.7							
	C3	7.5	7.9							
HZS9L	A1	7.7	8.1	0.5	60	0.5	1	6.0	7.0	0.5
	A2	7.9	8.3							
	A3	8.1	8.5							
	B1	8.3	8.7							
	B2	8.5	8.9							
	B3	8.7	9.1							
	C1	8.9	9.3							
	C2	9.1	9.5							
	C3	9.3	9.7							
HZS11L	A1	9.5	9.9	0.5	80	0.5	1	8.0	1.0	2.0
	A2	9.7	10.1							
	A3	9.9	10.3							
	B1	10.2	10.6							
	B2	10.4	10.8							
	B3	10.7	11.1							
	C1	10.9	11.3							
	C2	11.1	11.6							
	C3	11.4	11.9							
HZS12L	A1	11.6	12.1	0.5	80	0.5	1	10.5	10.0	0.5
	A2	11.9	12.4							
	A3	12.2	12.7							
	B1	12.4	12.9							
	B2	12.6	13.1							
	B3	12.9	13.4							
	C1	13.2	13.7							
	C2	13.5	14.0							
	C3	13.8	14.3							

Note: (1) When placing an order for HZS-L type, enter suffix as follows: HZS6A1, HZS6A2L HZS36-3L



Zener Diodes 0.40 W

Type No.	Suffix ⁽¹⁾	Zener Voltage		Test Current	Maximum Dynamic Resistance		Maximum Reverse Current		Typical Temperature Coefficient *	
		V _Z (V)		I _{ZT}	r _d	@ I _Z	I _R	@ V _R	γ _Z (mV/ °C)	I _Z
		min.	max.	(mA)	(Ω)	(mA)	(μA)	(V)		(mA)

HZS-L Series, 0.4 W, Case Type : DO-34



HZS15L	1	14.1	14.7	0.5	80	0.5	1	13.0	12.0	0.5
	2	14.5	15.1							
	3	14.9	15.5							
HZS16L	1	15.3	15.9	0.5	80	0.5	1	14.0	13.0	0.5
	2	15.7	16.5							
	3	16.3	17.1							
HZS18L	1	16.9	17.7	0.5	80	0.5	1	15.0	16.0	0.5
	2	17.5	18.3							
	3	18.1	19.0							
HZS20L	1	18.8	19.7	0.5	100	0.5	1	18.0	18.0	0.5
	2	19.5	20.4							
	3	20.2	21.1							
HZS22L	1	20.9	21.9	0.5	100	0.5	1	20.0	20.0	0.5
	2	21.6	22.6							
	3	22.3	23.3							
HZS24L	1	22.9	24.0	0.5	120	0.5	1	22.0	23.0	0.5
	2	23.6	24.7							
	3	24.3	25.5							
HZS27L	1	25.2	26.6	0.5	150	0.5	1	24.0	26.0	0.5
	2	26.2	27.6							
	3	27.2	28.6							
HZS30L	1	28.2	29.6	0.5	200	0.5	1	27.0	29.0	0.5
	2	29.2	30.6							
	3	30.2	31.6							
HZS33L	1	31.2	32.6	0.5	250	0.5	1	30.0	32.0	0.5
	2	32.2	33.6							
	3	33.2	34.6							
HZS36L	1	34.2	35.7	0.5	300	0.5	1	33.0	36.0	0.5
	2	35.3	36.8							
	3	36.4	38.0							

Note:

(1) When placing an order for HZS-L type, enter suffix as follows: HZS6A1, HZS6A2LHZS36-3L



Zener Diodes 0.40 W

Type	Suffix ⁽³⁾	Zener Voltage ⁽¹⁾		Test Current	Maximum Zener ⁽²⁾ Impedance			Maximum Reverse Current	
		V_Z (V) at I_{ZT}		I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	at V_R
		min.	max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)

RD2.0ES Series, 0.4 W, Case Type : DO-34



RD2.0ES	AB	1.88	2.20	5	100	1000	0.5	120	0.5
	AB1	1.88	2.10						
	AB2	2.02	2.20						
RD2.2ES	AB	2.12	2.41	5	100	1000	0.5	120	0.7
	AB1	2.12	2.30						
	AB2	2.22	2.41						
RD2.4ES	AB	2.33	2.63	5	100	1000	0.5	120	1.0
	AB1	2.33	2.52						
	AB2	2.43	2.63						
RD2.7ES	AB	2.54	2.91	5	110	1000	0.5	100	1.0
	AB1	2.54	2.75						
	AB2	2.69	2.91						
RD3.0ES	AB	2.85	3.22	5	120	1000	0.5	50	1.0
	AB1	2.85	3.07						
	AB2	3.01	3.22						
RD3.3ES	AB	3.16	3.53	5	120	1000	0.5	20	1.0
	AB1	3.16	3.38						
	AB2	3.32	3.53						
RD3.6ES	AB	3.47	3.83	5	120	1100	0.5	10	1.0
	AB1	3.47	3.68						
	AB2	3.62	3.83						
RD3.9ES	AB	3.77	4.14	5	120	1200	0.5	5	1.0
	AB1	3.77	3.98						
	AB2	3.92	4.14						
RD4.3ES	AB	4.05	4.53	5	120	1200	0.5	5	1.0
	AB1	4.05	4.26						
	AB2	4.20	4.40						
	AB3	4.34	4.53						
RD4.7ES	AB	4.47	4.91	5	100	1200	0.5	5	1.0
	AB1	4.47	4.65						
	AB2	4.59	4.77						
	AB3	4.71	4.91						
RD5.1ES	AB	4.85	5.35	5	70	1200	0.5	5	1.5
	AB1	4.85	5.03						
	AB2	4.97	5.18						
	AB3	5.12	5.35						
RD5.6ES	AB	5.29	5.88	5	40	900	0.5	5	2.5
	AB1	5.29	5.52						
	AB2	5.46	5.70						
	AB3	5.64	5.88						
RD6.2ES	AB	5.81	6.40	5	30	500	0.5	5	3.0
	AB1	5.81	6.06						
	AB2	5.99	6.24						
	AB3	6.16	6.40						



Zener Diodes 0.40 W

Type	Suffix ⁽³⁾	Zener Voltage ⁽¹⁾		Test Current	Maximum Zener ⁽²⁾ Impedance			Maximum Reverse Current	
		V_Z (V) at I_{ZT}		I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	at V_R
		min.	max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)

RD2.0ES Series, 0.4 W, Case Type : DO-34



RD6.8ES	AB	6.32	6.97	5	25	150	0.5	2	3.5
	AB1	6.32	6.59						
	AB2	6.52	6.79						
	AB3	6.70	6.97						
RD7.5ES	AB	6.88	7.64	5	25	120	0.5	0.5	4.0
	AB1	6.88	7.19						
	AB2	7.11	7.41						
	AB3	7.33	7.64						
RD8.2ES	AB	7.56	8.41	5	20	120	0.5	0.5	5.0
	AB1	7.56	7.90						
	AB2	7.82	8.15						
	AB3	8.07	8.41						
RD9.1ES	AB	8.33	9.29	5	20	120	0.5	0.5	6.0
	AB1	8.33	8.70						
	AB2	8.61	8.99						
	AB3	8.89	9.29						
RD10ES	AB	9.19	10.30	5	20	120	0.5	0.2	7.0
	AB1	9.19	9.59						
	AB2	9.48	9.90						
	AB3	9.82	10.30						
RD11ES	AB	10.18	11.26	5	20	120	0.5	0.2	8.0
	AB1	10.18	10.63						
	AB2	10.50	10.95						
	AB3	10.82	11.26						
RD12ES	AB	11.13	12.30	5	25	110	0.5	0.2	9.0
	AB1	11.13	11.63						
	AB2	11.50	11.92						
	AB3	11.80	12.30						
RD13ES	AB	12.18	13.62	5	25	110	0.5	0.2	10
	AB1	12.18	12.71						
	AB2	12.59	13.16						
	AB3	13.03	13.62						
RD15ES	AB	13.48	15.02	5	25	110	0.5	0.2	11
	AB1	13.48	14.09						
	AB2	13.95	14.56						
	AB3	14.42	15.02						
RD16ES	AB	14.87	16.50	5	25	150	0.5	0.2	12
	AB1	14.87	15.50						
	AB2	15.33	15.96						
	AB3	15.79	16.50						
RD18ES	AB	16.34	18.30	5	30	150	0.5	0.2	13
	AB1	16.34	17.06						
	AB2	16.90	17.67						
	AB3	17.51	18.30						

Zener Diodes 0.40 W

Type	Suffix ⁽³⁾	Zener Voltage ⁽¹⁾		Test Current	Maximum Zener ⁽²⁾ Impedance			Maximum Reverse Current	
		V_Z (V) at I_{ZT}		I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	at V_R
		min.	max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)

RD2.0ES Series, 0.4 W, Case Type : DO-34



RD20ES	AB	18.14	20.45	5	30	200	0.5	0.2	15
	AB1	18.14	18.96						
	AB2	18.80	19.68						
	AB3	19.52	20.45						
RD22ES	AB	20.23	22.61	5	30	200	0.5	0.2	17
	AB1	20.23	21.08						
	AB2	20.76	21.65						
	AB3	21.22	22.09						
	AB4	21.68	22.61						
RD24ES	AB	22.26	24.81	5	30	200	0.5	0.2	19
	AB1	22.26	23.12						
	AB2	22.75	23.73						
	AB3	23.29	24.27						
	AB4	23.81	24.81						
RD27ES	AB	24.26	27.64	5	45	250	0.5	0.2	21
	AB1	24.26	25.52						
	AB2	24.97	26.26						
	AB3	25.63	26.95						
	AB4	26.29	27.64						
RD30ES	AB	26.99	30.51	5	55	250	0.5	0.2	23
	AB1	26.99	28.39						
	AB2	27.70	29.13						
	AB3	28.36	29.82						
	AB4	29.02	30.51						
RD33ES	AB	29.68	33.11	5	65	250	0.5	0.2	25
	AB1	29.68	31.22						
	AB2	30.32	31.88						
	AB3	30.90	32.50						
	AB4	31.49	33.11						
RD36ES	AB	32.14	35.77	5	75	250	0.5	0.2	27
	AB1	32.14	33.79						
	AB2	32.79	34.49						
	AB3	33.40	35.13						
	AB4	34.01	35.77						
RD39ES	AB	34.68	38.52	5	85	250	0.5	0.2	30
	AB1	34.68	36.47						
	AB2	35.36	37.19						
	AB3	36.00	37.85						
	AB4	36.63	38.52						

Notes :

- (1) Tested with pulse (40 ms)
- (2) Z_Z and Z_{ZK} are measured at I_Z by applying a very small AC current signal
- (3) When placing an order for an RD2.0ES type, please add suffix e.g. RD2.0ESAB, RD2.0ESAB1... RD39ESAB4



Zener Diodes 0.40 W

Type No.	Suffix ⁽³⁾	Zener Voltage ⁽¹⁾			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current	
		V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)	
		Min.	Max.	I _Z (mA)	Max.	I _Z (mA)	Max.	I _Z (mA)	Max.	V _R (V)

RD4.7JS Series, 0.4 W, Case Type : DO-34



RD4.7JS	AB	4.42	4.90	5	100	5	800	0.5	2.0	1.0
	AB1	4.42	4.61							
	AB2	4.55	4.75							
	AB3	4.69	4.90							
RD5.1JS	AB	4.84	5.37	5	80	5	500	0.5	2.0	1.5
	AB1	4.84	5.04							
	AB2	4.98	5.20							
	AB3	5.14	5.37							
RD5.6JS	AB	5.31	5.92	5	60	5	200	0.5	1.0	2.5
	AB1	5.31	5.55							
	AB2	5.49	5.73							
	AB3	5.67	5.92							
RD6.2JS	AB	5.86	6.53	5	60	5	100	0.5	1.0	3.0
	AB1	5.86	6.12							
	AB2	6.06	6.33							
	AB3	6.26	6.53							
RD6.8JS	AB	6.47	7.14	5	40	5	60	0.5	0.5	3.5
	AB1	6.47	6.73							
	AB2	6.65	6.93							
	AB3	6.86	7.14							
RD7.5JS	AB	7.06	7.84	5	30	5	60	0.5	0.5	4.0
	AB1	7.06	7.36							
	AB2	7.28	7.60							
	AB3	7.52	7.84							
RD8.2JS	AB	7.76	8.64	5	30	5	60	0.5	0.5	5.0
	AB1	7.76	8.10							
	AB2	8.02	8.36							
	AB3	8.28	8.64							
RD9.1JS	AB	8.56	9.55	5	30	5	60	0.5	0.5	6.0
	AB1	8.56	8.93							
	AB2	8.85	9.23							
	AB3	9.15	9.55							
RD10JS	AB	9.45	10.55	5	30	5	60	0.5	0.1	7.0
	AB1	9.45	9.87							
	AB2	9.77	10.21							
	AB3	10.11	10.55							
RD11JS	AB	10.44	11.56	5	30	5	60	0.5	0.1	8.0
	AB1	10.44	10.88							
	AB2	10.76	11.22							
	AB3	11.10	11.56							
RD12JS	AB	11.42	12.60	5	30	5	80	0.5	0.1	9.0
	AB1	11.42	11.90							
	AB2	11.74	12.24							
	AB3	12.08	12.60							
RD13JS	AB	12.47	13.69	5	37	5	80	0.5	0.1	10
	AB1	12.47	13.03							
	AB2	12.91	13.49							
	AB3	13.37	13.96							

Zener Diodes 0.40 W

Type No.	Suffix ⁽³⁾	Zener Voltage ⁽¹⁾			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current	
		V_Z (V)			Z_Z (Ω)		Z_{ZK} (Ω)		I_R (μ A)	
		Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)

RD4.7JS Series, 0.4 W, Case Type : DO-34



RD15JS	AB	13.84	15.52	5	42	5	80	0.5	0.1	11
	AB1	13.84	14.46							
	AB2	14.34	14.98							
	AB3	14.85	15.52							
RD16JS	AB	15.37	17.09	5	50	5	80	0.5	0.1	12
	AB1	15.37	16.01							
	AB2	15.85	16.51							
	AB3	16.35	17.09							
RD18JS	AB	16.94	19.03	5	65	5	80	0.5	0.1	13
	AB1	16.94	17.70							
	AB2	17.56	18.53							
	AB3	18.21	19.03							
RD20JS	AB	18.86	21.08	5	85	5	100	0.5	0.1	15
	AB1	18.86	19.70							
	AB2	19.52	20.39							
	AB3	20.21	21.08							
RD22JS	AB	20.88	23.17	5	100	5	100	0.5	0.1	17
	AB1	20.88	21.77							
	AB2	21.54	22.47							
	AB3	22.23	23.17							
RD24JS	AB	22.93	25.57	5	120	5	120	0.5	0.1	19
	AB1	22.93	23.96							
	AB2	23.72	24.78							
	AB3	24.54	25.57							
RD27JS	AB	25.20	28.61	5	150	5	150	0.5	0.1	21
	AB1	25.20	26.50							
	AB2	26.19	27.53							
	AB3	27.21	28.61							
RD30JS	AB	28.22	31.74	5	200	5	200	0.5	0.1	23
	AB1	28.22	29.66							
	AB2	29.19	30.69							
	AB3	30.20	31.74							
RD33JS	AB	32.18	34.83	5	250	5	250	0.5	0.1	25
	AB1	32.18	32.78							
	AB2	32.15	33.79							
	AB3	33.13	34.83							
RD36JS	AB	34.12	37.91	5	300	5	300	0.5	0.1	27
	AB1	34.12	35.86							
	AB2	35.07	36.87							
	AB3	36.07	37.91							
RD39JS	AB	37.04	40.99	5	360	5	360	0.5	0.1	30
	AB1	37.04	38.94							
	AB2	38.00	39.94							
	AB3	38.99	40.99							

Notes:

- (1) Tested with pulse (40 ms).
- (2) Z_Z and Z_{ZK} are measured at I_Z by applying a very small AC current signal.
- (3) When placing an order for an RD4.7JS type, please add suffix e.g. RD4.7JSAB, RD4.7JSAB1... RD39JSAB3



Zener Diodes 0.50 W

Type No.		Nominal Zener Voltage	Test Current	Maximum Zener Impedance ⁽¹⁾		Maximum Reverse Leakage Current		Typical Temperature Coefficient	Maximum Regulator Current ⁽²⁾
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} at I _{ZK} = 0.25mA	I _R @ V _R		α _{VZ} (%/ °C)	I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(μA)	(V)		(mA)

1N5221/ZMM5221 Series, Case Type: DO-35/Mini MELF



1N5221	ZMM5221	2.4	20	30	1200	100	1.0	-0.085	190
1N5222	ZMM5222	2.5	20	30	1250	100	1.0	-0.085	182
1N5223	ZMM5223	2.7	20	30	1300	75	1.0	-0.080	168
1N5224	ZMM5224	2.8	20	30	1400	75	1.0	-0.080	162
1N5225	ZMM5225	3.0	20	29	1600	50	1.0	-0.075	152
1N5226	ZMM5226	3.3	20	28	1600	25	1.0	-0.070	138
1N5227	ZMM5227	3.6	20	24	1700	15	1.0	-0.065	126
1N5228	ZMM5228	3.9	20	23	1900	10	1.0	-0.060	115
1N5229	ZMM5229	4.3	20	22	2000	5.0	1.0	-0.055	106
1N5230	ZMM5230	4.7	20	19	1900	5.0	2.0	± 0.030	97
1N5231	ZMM5231	5.1	20	17	1600	5.0	2.0	± 0.030	89
1N5232	ZMM5232	5.6	20	11	1600	5.0	3.0	+0.038	81
1N5233	ZMM5233	6.0	20	7	1600	5.0	3.5	+0.038	76
1N5234	ZMM5234	6.2	20	7	1000	5.0	4.0	+0.045	73
1N5235	ZMM5235	6.8	20	5	750	3.0	5.0	+0.050	67
1N5236	ZMM5236	7.5	20	6	500	3.0	6.0	+0.058	61
1N5237	ZMM5237	8.2	20	8	500	3.0	6.5	+0.062	55
1N5238	ZMM5238	8.7	20	8	600	3.0	6.5	+0.065	52
1N5239	ZMM5239	9.1	20	10	600	3.0	7.0	+0.068	50
1N5240	ZMM5240	10	20	17	600	3.0	8.0	+0.075	45
1N5241	ZMM5241	11	20	22	600	2.0	8.4	+0.076	41
1N5242	ZMM5242	12	20	30	600	1.0	9.1	+0.077	38
1N5243	ZMM5243	13	9.5	13	600	0.5	9.9	+0.079	35
1N5244	ZMM5244	14	9.0	15	600	0.1	10	+0.082	32
1N5245	ZMM5245	15	8.5	16	600	0.1	11	+0.082	30
1N5246	ZMM5246	16	7.8	17	600	0.1	12	+0.083	28
1N5247	ZMM5247	17	7.4	19	600	0.1	13	+0.084	27
1N5248	ZMM5248	18	7.0	21	600	0.1	14	+0.085	25
1N5249	ZMM5249	19	6.6	23	600	0.1	14	+0.086	24
1N5250	ZMM5250	20	6.2	25	600	0.1	15	+0.086	23
1N5251	ZMM5251	22	5.6	29	600	0.1	17	+0.087	21
1N5252	ZMM5252	24	5.2	33	600	0.1	18	+0.088	19.1
1N5253	ZMM5253	25	5.0	35	600	0.1	19	+0.089	18.2
1N5254	ZMM5254	27	4.6	41	600	0.1	21	+0.090	16.8
1N5255	ZMM5255	28	4.5	44	600	0.1	21	+0.091	16.2
1N5256	ZMM5256	30	4.2	49	600	0.1	23	+0.091	15.1
1N5257	ZMM5257	33	3.8	58	700	0.1	25	+0.092	13.8
1N5258	ZMM5258	36	3.4	70	700	0.1	27	+0.093	12.6
1N5259	ZMM5259	39	3.2	80	800	0.1	30	+0.094	11.6
1N5260	ZMM5260	43	3.0	93	900	0.1	33	+0.095	10.6
1N5261	ZMM5261	47	2.7	105	1000	0.1	36	+0.095	9.7
1N5262	ZMM5262	51	2.5	125	1100	0.1	39	+0.096	8.9
1N5263	ZMM5263	56	2.2	150	1300	0.1	43	+0.096	-
1N5264	ZMM5264	60	2.1	170	1400	0.1	46	+0.097	-
1N5265	ZMM5265	62	2.0	185	1400	0.1	47	+0.098	-
1N5266	ZMM5266	68	1.8	230	1600	0.1	52	+0.097	-
1N5267	ZMM5267	75	1.7	270	1700	0.1	56	+0.098	-

Notes :

- (1) The Zener impedance is derived from the 1 KHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to ensure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) V_F = 1.1 Vmax. @ I_F = 200 mA
- (3) Standard Zener voltage tolerance is ± 10%. Add suffix "B" for ± 5% tolerance, Add suffix "C" for ± 2% tolerance .



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}$				Maximum DC Zener Current	Voltage Regulation	Maximum Reverse Leakage Current	
	Min. (V)	Nom. ⁽¹⁾ (V)	Max. (V)	I_{ZT} (μ A)	I_{ZM} ⁽²⁾ (mA)	ΔV_Z ⁽⁴⁾ (V)	I_R ⁽³⁾ (μ A)	at V_R (V)
SMD								

TZS4678 Series, Case Type: Mini MELF



TZS4678	1.710	1.8	1.89	50	120	0.70	7.5	1.0
TZS4679	1.900	2.0	2.10	50	110	0.70	5.0	1.0
TZS4680	2.090	2.2	2.310	50	100	0.75	4.0	1.0
TZS4681	2.280	2.4	2.520	50	95.0	0.80	2.0	1.0
TZS4682	2.565	2.7	2.835	50	90.0	0.85	1.0	1.0
TZS4683	2.850	3.0	3.150	50	85.0	0.90	0.8	1.0
TZS4684	3.135	3.3	3.465	50	80.0	0.95	7.5	1.5
TZS4685	3.420	3.6	3.780	50	75.0	0.95	7.5	2.0
TZS4686	3.705	3.9	4.095	50	70.0	0.97	5.0	2.0
TZS4687	4.085	4.3	4.515	50	65.0	0.99	4.0	2.0
TZS4688	4.465	4.7	4.935	50	60.0	0.99	10	3.0
TZS4689	4.845	5.1	5.355	50	55.0	0.97	10	3.0
TZS4690	5.320	5.6	5.880	50	50.0	0.96	10	4.0
TZS4691	5.890	6.2	6.510	50	45.0	0.95	10	5.0
TZS4692	6.460	6.8	7.140	50	35.0	0.90	10	5.10
TZS4693	7.125	7.5	7.875	50	31.8	0.75	10	5.70
TZS4694	7.790	8.2	8.610	50	29.0	0.50	1.0	6.20
TZS4695	8.265	8.7	9.135	50	27.4	0.10	1.0	6.60
TZS4696	8.645	9.1	9.555	50	26.2	0.08	1.0	6.90
TZS4697	9.500	10	10.50	50	24.8	0.10	1.0	7.60
TZS4698	10.45	11	11.55	50	21.6	0.11	0.05	8.40
TZS4699	11.40	12	12.60	50	20.4	0.12	0.05	9.10
TZS4700	12.35	13	13.65	50	19.0	0.13	0.05	9.80
TZS4701	13.30	14	14.70	50	17.5	0.14	0.05	10.6
TZS4702	14.25	15	15.75	50	16.3	0.15	0.05	11.4
TZS4703	15.20	16	16.80	50	15.4	0.16	0.05	12.1
TZS4704	16.15	17	17.85	50	14.5	0.17	0.05	12.9
TZS4705	17.10	18	18.90	50	13.2	0.18	0.05	13.6
TZS4706	18.05	19	19.95	50	12.5	0.19	0.05	14.4
TZS4707	19.00	20	21.00	50	11.9	0.20	0.01	15.2
TZS4708	20.90	22	23.10	50	10.8	0.22	0.01	16.7
TZS4709	22.80	24	25.20	50	9.90	0.24	0.01	18.2
TZS4710	23.75	25	26.25	50	9.50	0.25	0.01	19.0
TZS4711	25.65	27	28.35	50	8.80	0.27	0.01	20.4
TZS4712	26.60	28	29.40	50	8.50	0.28	0.01	21.2
TZS4713	28.50	30	31.50	50	7.90	0.30	0.01	22.8
TZS4714	31.35	33	34.65	50	7.20	0.33	0.01	25.0
TZS4715	34.20	36	37.80	50	6.60	0.36	0.01	27.3
TZS4716	37.05	39	40.95	50	6.10	0.39	0.01	29.6
TZS4717	40.85	43	45.15	50	5.50	0.43	0.01	32.6

Notes :

- (1) The type number shown have a standard tolerance of $\pm 5\%$ on the nominal zener voltage.
- (2) Maximum zener current ratings are based on maximum zener voltage of the individual unit.
- (3) Reverse leakage current are guaranteed and measured at V_R as shown on the table.
- (4) Voltage change is equal to the difference between V_Z at 100 μ A and V_Z at 10 μ A.



Zener Diodes 0.50 W

Type No.	Nominal Zener Voltage ⁽³⁾	Test Current	Maximum Zener Impedance	Maximum Reverse Leakage Current $I_R @ V_R=1V$		Maximum DC Zener Current ⁽²⁾
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}^{(1)}$	$T_a=25^{\circ}C$	$T_a=150^{\circ}C$	I_{ZM}
	(V)	(mA)	(Ω)	(μA)	(μA)	(mA)

1N746A Series, 0.5 W, Case Type : DO-35



1N746A	3.3	20	28	10	30	110
1N747A	3.6	20	24	10	30	100
1N748A	3.9	20	23	10	30	95
1N749A	4.3	20	22	2	30	85
1N750A	4.7	20	19	2	30	75
1N751A	5.1	20	17	1	20	70
1N752A	5.6	20	11	1	20	65
1N753A	6.2	20	7	0.1	20	60
1N754A	6.8	20	5	0.1	20	55
1N755A	7.5	20	6	0.1	20	50
1N756A	8.2	20	8	0.1	20	45
1N757A	9.1	20	10	0.1	20	40
1N758A	10	20	17	0.1	20	35
1N759A	12	20	30	0.1	20	30

Notes :

- (1) The Zener impedance is derived from the 1 KHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT}) is superimposed on I_{ZT} . Zener impedance is measured at two points to ensure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) Valid provided that leads are at a distance of 3/8" from case and kept at ambient temperature.
- (3) Measured with device junction in thermal equilibrium
- (4) Standard zener voltage tolerance is $\pm 5\%$ for suffix "A" . Other tolerances are available upon request
- (5) $V_F = 1.5 V_{max}$. @ $I_F = 200 mA$



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}^{(3)}$		Maximum Zener Impedance ⁽¹⁾			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Nominal	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		$I_{ZM}^{(2)}$
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

1N957B Series, 0.5 W, Case Type : DO-35



1N957B	6.8	18.5	4.5	700	1.00	150	5.2	58
1N958B	7.5	16.5	5.5	700	0.50	75	5.7	53
1N959B	8.2	15.0	6.5	700	0.50	50	6.2	47
1N960B	9.1	14.0	7.5	700	0.50	25	6.9	43
1N961B	10	12.5	8.5	700	0.25	10	7.6	40
1N962B	11	11.5	9.5	700	0.25	5	8.4	36
1N963B	12	10.5	11.5	700	0.25	5	9.1	32
1N964B	13	9.5	13	700	0.25	5	9.9	29
1N965B	15	8.5	16	700	0.25	5	11.4	27
1N966B	16	7.8	17	700	0.25	5	12.2	24
1N967B	18	7.0	21	750	0.25	5	13.7	21
1N968B	20	6.2	25	750	0.25	5	15.2	20
1N969B	22	5.6	29	750	0.25	5	16.7	18
1N970B	24	5.2	33	750	0.25	5	18.2	16
1N971B	27	4.6	41	750	0.25	5	20.6	14
1N972B	30	4.2	49	1000	0.25	5	22.8	13
1N973B	33	3.8	58	1000	0.25	5	25.1	12
1N974B	36	3.4	70	1000	0.25	5	27.4	11
1N975B	39	3.2	80	1000	0.25	5	29.7	10
1N976B	43	3.0	93	1500	0.25	5	32.7	9.2
1N977B	47	2.7	105	1500	0.25	5	35.8	8.5
1N978B	51	2.5	125	1500	0.25	5	38.8	7.8
1N979B	56	2.2	150	2000	0.25	5	42.6	6.9
1N980B	62	2.0	185	2000	0.25	5	47.1	6.3
1N981B	68	1.8	230	2000	0.25	5	51.7	5.7
1N982B	75	1.7	270	2000	0.25	5	56.0	5.2
1N983B	82	1.5	330	3000	0.25	5	62.2	4.7
1N984B	91	1.4	440	3000	0.25	5	69.2	4.3

Notes :

- (1) The Zener Impedance is derived from the 1 KHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT}) is superimposed on I_{ZT} . Zener Impedance is measured at two points to ensure a sharp knee on the breakdown curve and to eliminate unstable units.
- (2) Valid provided that leads are at a distance of 3/8" from case and kept at 25°C ambient temperature.
- (3) Measured with device junction in thermal equilibrium.
- (4) Standard zener voltage tolerance is $\pm 5\%$ for suffix "B". Other tolerances are available upon request.
- (5) $V_F = 1.5 V_{max}$. @ $I_F = 200 \text{ mA}$



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}$				Maximum Zener Impedance			Maximum Reverse Leakage Current, I_R			Temp. coefficient of Zener Voltage at $I_Z = 5\text{mA}$ $\alpha_{VZ}(\% / ^\circ\text{C})$	Admissible Zener Current ⁽²⁾ $I_{ZM}(\text{mA})$
	Nom ⁽¹⁾ (V)	Min (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω)	$Z_{ZK} @ I_{ZK}$ (Ω)	I_{ZK} (mA)	$T_a=25^\circ\text{C}$ (μA)	$T_a=150^\circ\text{C}$ (μA)	At V_R (V)		

BZX55 Series, 0.5 W, Case Type : DO-35



BZX55C2V0	2.0	1.90	2.10	5.0	85	600	1.0	100	200	1.0	-0.09...-0.06	175
BZX55C2V2	2.2	2.09	2.31	5.0	85	600	1.0	50	100	1.0	-0.09...-0.06	160
BZX55C2V4	2.4	2.28	2.56	5.0	85	600	1.0	50	100	1.0	-0.09...-0.06	145
BZX55C2V7	2.7	2.5	2.9	5.0	85	600	1.0	10	50	1.0	-0.09...-0.06	135
BZX55C3V0	3.0	2.8	3.2	5.0	85	600	1.0	4.0	40	1.0	-0.08...-0.05	125
BZX55C3V3	3.3	3.1	3.5	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	115
BZX55C3V6	3.6	3.4	3.8	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	105
BZX55C3V9	3.9	3.7	4.1	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	95
BZX55C4V3	4.3	4.0	4.6	5.0	75	600	1.0	1.0	20	1.0	-0.06...-0.03	90
BZX55C4V7	4.7	4.4	5.0	5.0	60	600	1.0	0.5	10	1.0	-0.05...+0.02	85
BZX55C5V1	5.1	4.8	5.4	5.0	35	550	1.0	0.1	2	1.0	-0.02...+0.02	80
BZX55C5V6	5.6	5.2	6.0	5.0	25	450	1.0	0.1	2	1.0	-0.05...+0.05	70
BZX55C6V2	6.2	5.8	6.6	5.0	10	200	1.0	0.1	2	2.0	0.03...0.06	64
BZX55C6V8	6.8	6.4	7.2	5.0	8	150	1.0	0.1	2	3.0	0.03...0.07	58
BZX55C7V5	7.5	7.0	7.9	5.0	7	50	1.0	0.1	2	5.0	0.03...0.07	53
BZX55C8V2	8.2	7.7	8.7	5.0	7	50	1.0	0.1	2	6.2	0.03...0.08	47
BZX55C9V1	9.1	8.5	9.6	5.0	10	50	1.0	0.1	2	6.8	0.03...0.09	43
BZX55C10	10	9.4	10.6	5.0	15	70	1.0	0.1	2	7.5	0.03...0.10	40
BZX55C11	11	10.4	11.6	5.0	20	70	1.0	0.1	2	8.2	0.03...0.11	36
BZX55C12	12	11.4	12.7	5.0	20	90	1.0	0.1	2	9.1	0.03...0.11	32
BZX55C13	13	12.4	14.1	5.0	26	110	1.0	0.1	2	10	0.03...0.11	29
BZX55C15	15	13.8	15.6	5.0	30	110	1.0	0.1	2	11	0.03...0.11	28
BZX55C16	16	15.3	17.1	5.0	40	170	1.0	0.1	2	12	0.03...0.11	27
BZX55C18	18	16.8	19.1	5.0	50	170	1.0	0.1	2	13	0.03...0.11	24
BZX55C20	20	18.8	21.2	5.0	55	220	1.0	0.1	2	15	0.03...0.11	21
BZX55C22	22	20.8	23.3	5.0	55	220	1.0	0.1	2	16	0.04...0.12	20
BZX55C24	24	22.8	25.6	5.0	80	220	1.0	0.1	2	18	0.04...0.12	18
BZX55C27	27	25.1	28.9	5.0	80	220	1.0	0.1	2	20	0.04...0.12	16
BZX55C30	30	28	32	5.0	80	220	1.0	0.1	2	22	0.04...0.12	14
BZX55C33	33	31	35	5.0	80	220	1.0	0.1	2	24	0.04...0.12	13
BZX55C36	36	34	38	5.0	80	220	1.0	0.1	2	27	0.04...0.12	12
BZX55C39	39	37	41	2.5	90	500	0.5	0.1	5	30	0.04...0.12	11
BZX55C43	43	40	46	2.5	90	500	0.5	0.1	5	33	0.04...0.12	10
BZX55C47	47	44	50	2.5	110	600	0.5	0.1	5	36	0.04...0.12	9.2
BZX55C51	51	48	54	2.5	125	700	0.5	0.1	10	39	0.04...0.12	8.5
BZX55C56	56	52	60	2.5	135	700	0.5	0.1	10	43	typ. 0.1 ⁽⁴⁾	7.8
BZX55C62	62	58	66	2.5	150	1000	0.5	0.1	10	47	typ. 0.1 ⁽⁴⁾	7.0
BZX55C68	68	64	72	2.5	200	1000	0.5	0.1	10	51	typ. 0.1 ⁽⁴⁾	6.4
BZX55C75	75	70	79	2.5	250	1000	0.5	0.1	10	56	typ. 0.1 ⁽⁴⁾	5.9
BZX55C82	82	77	87	2.5	300	1500	0.5	0.1	10	62	typ. 0.1 ⁽⁴⁾	5.3
BZX55C91	91	85	96	1.0	450	2000	0.1	0.1	10	68	typ. 0.1 ⁽⁴⁾	4.8
BZX55C100	100	94	106	1.0	450	5000	0.1	0.1	10	75	typ. 0.1 ⁽⁴⁾	4.4

Notes:

- (1) Tested with pulse $t_p = 20\text{ ms}$
- (2) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case
- (3) For $\pm 2\%$ tolerance replace the sixth letter of the type from "C" to "B" e.g. BZX55B15
- (4) At $I_Z = 2.5\text{ mA}$
- (5) $V_F = 1\text{ Vmax. @ } I_F = 100\text{ mA}$



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}$		Maximum Zener Impedance, $f = 1\text{kHz}$			Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage at I_{ZT}
	Nom ⁽¹⁾	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	at V_R	
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	$\alpha_{VZ}(\% / ^\circ\text{C})$

BZV55 Series, 0.5 W, Case Type : Mini MELF



BZV55C2V4	2.4	5.0	100	600	1.0	50	1.0	-0.08...-0.06
BZV55C2V7	2.7	5.0	100	600	1.0	20	1.0	-0.08...-0.06
BZV55C3V0	3.0	5.0	95	600	1.0	10	1.0	-0.08...-0.05
BZV55C3V3	3.3	5.0	95	600	1.0	5.0	1.0	-0.08...-0.05
BZV55C3V6	3.6	5.0	90	600	1.0	5.0	1.0	-0.08...-0.04
BZV55C3V9	3.9	5.0	90	600	1.0	3.0	1.0	-0.07...-0.03
BZV55C4V3	4.3	5.0	90	600	1.0	3.0	1.0	-0.04...-0.01
BZV55C4V7	4.7	5.0	80	500	1.0	3.0	2.0	-0.03...+0.01
BZV55C5V1	5.1	5.0	60	480	1.0	2.0	2.0	-0.02...+0.05
BZV55C5V6	5.6	5.0	40	400	1.0	1.0	2.0	-0.01...+0.06
BZV55C6V2	6.2	5.0	10	150	1.0	3.0	4.0	0.00...0.07
BZV55C6V8	6.8	5.0	15	80	1.0	2.0	4.0	0.01...0.08
BZV55C7V5	7.5	5.0	15	80	1.0	1.0	5.0	0.01...0.09
BZV55C8V2	8.2	5.0	15	80	1.0	0.7	5.0	0.01...0.09
BZV55C9V1	9.1	5.0	15	100	1.0	0.5	6.0	0.02...0.10
BZV55C10	10	5.0	20	150	1.0	0.2	7.0	0.03...0.11
BZV55C11	11	5.0	20	150	1.0	0.1	8.0	0.03...0.11
BZV55C12	12	5.0	25	150	1.0	0.1	8.0	0.03...0.11
BZV55C13	13	5.0	30	170	1.0	0.1	8.0	0.03...0.11
BZV55C15	15	5.0	30	200	1.0	0.05	10	0.03...0.11
BZV55C16	16	5.0	40	200	1.0	0.05	11	0.03...0.11
BZV55C18	18	5.0	45	225	1.0	0.05	13	0.03...0.11
BZV55C20	20	5.0	55	225	1.0	0.05	14	0.03...0.11
BZV55C22	22	5.0	55	250	1.0	0.05	15	0.03...0.11
BZV55C24	24	5.0	70	250	1.0	0.05	17	0.04...0.12
BZV55C27	27	2.0	80	300	0.5	0.05	19	0.04...0.12
BZV55C30	30	2.0	80	300	0.5	0.05	21	0.04...0.12
BZV55C33	33	2.0	80	325	0.5	0.05	23	0.04...0.12
BZV55C36	36	2.0	90	350	0.5	0.05	25	0.04...0.12
BZV55C39	39	2.0	130	350	0.5	0.05	27	0.04...0.12
BZV55C43	43	2.0	150	375	0.5	0.05	30	0.04...0.12
BZV55C47	47	2.0	170	375	0.5	0.05	33	0.04...0.12
BZV55C51	51	2.0	180	400	0.5	0.05	36	0.04...0.12
BZV55C56	56	2.0	200	425	0.5	0.05	39	0.1 (typ.)
BZV55C62	62	2.0	215	450	0.5	0.05	43	0.1 (typ.)
BZV55C68	68	2.0	240	475	0.5	0.05	48	0.1 (typ.)
BZV55C75	75	2.0	255	500	0.5	0.05	53	0.1 (typ.)

Notes.

- (1) Tested with pulse $t_p = 5\text{ ms}$
- (2) The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$
For $\pm 2\%$ tolerance replace the sixth letter of the type from "C" to "B" e.g. BZV55B15
- (3) $V_F = 0.9 V_{max}$. @ $I_F = 10\text{ mA}$



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}$		Maximum Zener Impedance, $f = 1\text{ kHz}$			Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage at I_{ZT}	Admissible Zener Current ⁽²⁾	Maximum Capacitance $V_R=0, f=1\text{ MHz}$
	Nom ⁽¹⁾	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{Zk} @ I_{Zk}$	I_{Zk}	I_R	at V_R			
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	$\alpha_{mVZ} (\% / ^\circ\text{C})$	(mA)	(pF)

BZX79 Series, 0.5 W, Case Type : DO-35



BZX79C2V4	2.4	5.0	100	600	1.0	50	1.0	-0.08...-0.06	167	450
BZX79C2V7	2.7	5.0	100	600	1.0	20	1.0	-0.08...-0.06	135	450
BZX79C3V0	3.0	5.0	95	600	1.0	10	1.0	-0.08...-0.05	125	450
BZX79C3V3	3.3	5.0	95	600	1.0	5.0	1.0	-0.08...-0.05	115	450
BZX79C3V6	3.6	5.0	90	600	1.0	5.0	1.0	-0.08...-0.04	105	450
BZX79C3V9	3.9	5.0	90	600	1.0	3.0	1.0	-0.07...-0.03	95	450
BZX79C4V3	4.3	5.0	90	600	1.0	3.0	1.0	-0.04...-0.01	90	450
BZX79C4V7	4.7	5.0	80	500	1.0	3.0	1.0	-0.03...+0.01	85	300
BZX79C5V1	5.1	5.0	60	480	1.0	2.0	1.0	-0.02...+0.05	80	300
BZX79C5V6	5.6	5.0	40	400	1.0	1.0	1.0	-0.01...+0.06	70	300
BZX79C6V2	6.2	5.0	10	150	1.0	3.0	2.0	0.00...0.07	64	200
BZX79C6V8	6.8	5.0	15	80	1.0	2.0	3.0	0.01...0.08	58	200
BZX79C7V5	7.5	5.0	15	80	1.0	1.0	5.0	0.01...0.09	53	150
BZX79C8V2	8.2	5.0	15	80	1.0	0.7	6.0	0.01...0.09	47	150
BZX79C9V1	9.1	5.0	15	100	1.0	0.5	7.0	0.02...0.10	43	150
BZX79C10	10	5.0	20	150	1.0	0.2	7.5	0.03...0.11	40	90
BZX79C11	11	5.0	20	150	1.0	0.1	8.5	0.03...0.11	36	85
BZX79C12	12	5.0	25	150	1.0	0.1	9.0	0.03...0.11	32	85
BZX79C13	13	5.0	30	170	1.0	0.1	10	0.03...0.11	29	80
BZX79C15	15	5.0	30	200	1.0	0.05	11	0.03...0.11	27	75
BZX79C16	16	5.0	40	200	1.0	0.05	12	0.03...0.11	24	75
BZX79C18	18	5.0	45	225	1.0	0.05	14	0.03...0.11	21	70
BZX79C20	20	5.0	55	225	1.0	0.05	15	0.03...0.11	20	60
BZX79C22	22	5.0	55	250	1.0	0.05	17	0.03...0.11	18	60
BZX79C24	24	5.0	70	250	1.0	0.05	18	0.04...0.12	16	55
BZX79C27	27	2.0	80	300	0.5	0.05	20	0.04...0.12	14	50
BZX79C30	30	2.0	80	300	0.5	0.05	22	0.04...0.12	13	50
BZX79C33	33	2.0	80	325	0.5	0.05	24	0.04...0.12	12	45
BZX79C36	36	2.0	90	350	0.5	0.05	27	0.04...0.12	11	45
BZX79C39	39	2.0	130	350	0.5	0.05	28	0.04...0.12	10	45
BZX79C43	43	2.0	150	375	0.5	0.05	32	0.04...0.12	9.2	40
BZX79C47	47	2.0	170	375	0.5	0.05	35	0.04...0.12	8.5	40
BZX79C51	51	2.0	180	400	0.5	0.05	38	0.04...0.12	7.8	40
BZX79C56	56	2.0	200	425	0.5	0.05	39	0.1(typ.)	7.1	40
BZX79C62	62	2.0	215	450	0.5	0.05	43	0.1(typ.)	6.4	35
BZX79C68	68	2.0	240	475	0.5	0.05	48	0.1(typ.)	5.8	35
BZX79C75	75	2.0	255	500	0.5	0.05	53	0.1(typ.)	5.3	35

Notes:

- (1) Tested with pulse $t_p = 5\text{ ms}$
- (2) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case
- (3) The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$
For $\pm 2\%$ tolerance replace the sixth letter of the type from "C" to "B" e.g. BZX79B13
- (4) $V_F = 0.9\text{ Vmax.} @ I_F = 10\text{ mA}$



Zener Diodes 0.50 W

Type No.	Suffix ⁽²⁾	Zener Voltage		Test Current	Maximum Zener Impedance , f = 1kHz			Maximum Reverse Current	
		V _Z (V) at I _{ZT} ⁽¹⁾		I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R	at V _R
		min.	max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)

GLZ Series, 0.5 W, Case Type : Mini MELF



GLZ3.3	A	3.160	3.380	20	70	1000	1	20	1
	B	3.320	3.530						
GLZ3.6	A	3.455	3.695	20	60	1000	1	10	1
	B	3.600	3.845						
GLZ3.9	A	3.74	4.01	20	50	1000	1	5	1
	B	3.89	4.16						
GLZ4.3	A	4.04	4.29	20	40	1000	1	5	1
	B	4.17	4.43						
	C	4.30	4.57						
GLZ4.7	A	4.44	4.68	20	25	900	1	5	1
	B	4.55	4.80						
	C	4.68	4.93						
GLZ5.1	A	4.81	5.07	20	20	800	1	5	1.5
	B	4.94	5.20						
	C	5.09	5.37						
GLZ5.6	A	5.28	5.55	20	13	500	1	5	2.5
	B	5.45	5.73						
	C	5.61	5.91						
GLZ6.2	A	5.78	6.09	20	10	300	1	5	3
	B	5.96	6.27						
	C	6.12	6.44						
GLZ6.8	A	6.29	6.63	20	8	150	0.5	2	3.5
	B	6.49	6.83						
	C	6.66	7.01						
GLZ7.5	A	6.85	7.22	20	8	120	0.5	0.5	4
	B	7.07	7.45						
	C	6.29	7.67						
GLZ8.2	A	7.53	7.92	20	8	120	0.5	0.5	5
	B	7.78	8.19						
	C	8.03	8.45						
GLZ9.1	A	8.29	8.73	20	8	120	0.5	0.5	6
	B	8.57	9.01						
	C	8.83	9.30						
GLZ10	A	9.12	9.59	20	8	120	0.5	0.2	7
	B	9.41	9.90						
	C	9.70	10.20						
	D	9.94	10.44						
GLZ11	A	10.18	10.71	20	10	120	0.5	0.2	8
	B	10.50	115.00						
	C	10.82	11.38						
GLZ12	A	11.13	11.71	20	12	110	0.5	0.2	9
	B	11.44	12.03						
	C	11.74	12.35						
GLZ13	A	12.11	12.75	10	14	110	0.5	0.2	10
	B	12.55	13.21						
	C	12.99	13.66						



Zener Diodes 0.50 W

Type No.	Suffix ⁽²⁾	Zener Voltage		Test Current	Maximum Zener Impedance , f = 1kHz			Maximum Reverse Current	
		V _Z (V) at I _{ZT} ⁽¹⁾		I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R	at V _R
		min.	max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)

GLZ Series, 0.5 W, Case Type : Mini MELF



GLZ15	A	13.45	14.13	10	16	110	0.5	0.2	11
	B	13.89	14.62						
	C	14.35	15.09						
GLZ16	A	14.80	15.57	10	18	150	0.5	0.2	12
	B	15.25	16.04						
	C	15.69	16.51						
GLZ18	A	16.22	17.06	10	23	150	0.5	0.2	13
	B	16.82	17.70						
	C	17.42	18.33						
GLZ20	A	18.02	18.96	10	28	200	0.5	0.2	15
	B	18.63	19.59						
	C	19.23	20.22						
	D	19.72	20.72						
GLZ22	A	20.15	21.20	5	30	200	0.5	0.2	17
	B	20.64	21.71						
	C	21.08	22.17						
	D	21.52	22.63						
GLZ24	A	22.05	23.18	5	35	200	0.5	0.2	19
	B	22.61	23.77						
	C	23.12	24.31						
	D	23.63	24.85						
GLZ27	A	24.26	25.52	5	45	200	0.5	0.2	21
	B	24.97	26.26						
	C	25.63	26.95						
	D	26.29	27.54						
GLZ30	A	26.99	28.39	5	55	250	0.5	0.2	23
	B	27.70	29.13						
	C	28.36	29.82						
	D	29.20	30.51						
GLZ33	A	29.68	31.22	5	65	250	0.5	0.2	25
	B	30.32	31.88						
	C	30.90	32.50						
	D	31.49	33.11						
GLZ36	A	31.14	33.79	5	75	250	0.5	0.2	27
	B	32.76	34.49						
	C	33.40	35.13						
	D	34.01	35.77						
GLZ39	A	34.68	36.47	5	85	250	0.5	0.2	30
	B	35.36	37.19						
	C	36.00	37.85						
	D	36.63	38.52						

Notes:

(1) The Zener voltage is measured 40ms after power is supplied

(2) When ordering use suffix "A", "B", "C" or "D" to specify zener voltage e.g. GLZ3.3A....GLZ39D



Zener Diodes 0.50 W

Type No.	Grade	Zener Voltage V _Z @ I _{ZT}						Test Current	Maximum Dynamic Resistance		Maximum Reverse Current								
		Suffix -1		Suffix -2		Suffix -3													
		min.	max.	min.	max.	min.	max.						I _{ZT}	rd	@	I _Z	I _R	@	V _R
		(V)	(V)	(V)	(V)	(V)	(V)						(mA)	(Ω)		(mA)	(μA)		(V)

HZ Series, 0.5 W, Case Type : DO-35



HZ2	A	1.6	1.8	1.7	1.9	1.8	2.0	5	100	5	25	0.5
	B	1.9	2.1	2.0	2.2	2.1	2.3	5	100	5	2	0.5
	C	2.2	2.4	2.3	2.5	2.4	2.6	5	100	5	1	0.5
HZ3	A	2.5	2.7	2.6	2.8	2.7	2.9	5	100	5	1	0.5
	B	2.8	3.0	2.9	3.1	3.0	3.2	5	100	5	1	0.5
	C	3.1	3.3	3.2	3.4	3.3	3.5	5	100	5	1	0.5
HZ4	A	3.4	3.6	3.5	3.7	3.6	3.8	5	100	5	5	1.0
	B	3.7	3.9	3.8	4.0	3.9	4.1	5	100	5	5	1.0
	C	4.0	4.2	4.1	4.3	4.2	4.4	5	100	5	5	1.0
HZ5	A	4.3	4.5	4.4	4.6	4.5	4.7	5	100	5	5	1.5
	B	4.6	4.8	4.7	4.9	4.8	5.0	5	100	5	5	1.5
	C	4.9	5.1	5.0	5.2	5.1	5.3	5	100	5	5	1.5
HZ6	A	5.2	5.5	5.3	5.6	5.4	5.7	5	35	5	5	2.0
	B	5.5	5.8	5.6	5.9	5.7	6.0	5	35	5	5	2.0
	C	5.8	6.1	6.0	6.3	6.1	6.4	5	35	5	5	2.0
HZ7	A	6.3	6.6	6.4	6.7	6.6	6.9	5	15	5	1	3.5
	B	6.7	7.0	6.9	7.2	7.0	7.3	5	15	5	1	3.5
	C	7.2	7.6	7.3	7.7	7.5	7.9	5	15	5	1	3.5
HZ9	A	7.7	8.1	7.9	8.3	8.1	8.5	5	20	5	1	5.0
	B	8.3	8.7	8.5	8.9	8.7	9.1	5	20	5	1	5.0
	C	8.9	9.3	9.1	9.5	9.3	9.7	5	20	5	1	5.0
HZ11	A	9.5	9.9	9.7	10.1	9.9	10.3	5	25	5	1	7.5
	B	10.2	10.6	10.4	10.8	10.7	11.1	5	25	5	1	7.5
	C	10.9	11.3	11.1	11.6	11.4	11.9	5	25	5	1	7.5
HZ12	A	11.6	12.1	11.9	12.4	12.2	12.7	5	35	5	1	9.5
	B	12.4	12.9	12.6	13.1	12.9	13.4	5	35	5	1	9.5
	C	13.2	13.7	13.5	14.0	13.8	14.3	5	35	5	1	9.5
HZ15		14.1	14.7	14.5	15.1	14.9	15.5	5	40	5	1	11
HZ16		15.3	15.9	15.7	16.5	16.3	17.1	5	45	5	1	12
HZ18		16.9	17.7	17.5	18.3	18.1	19.0	5	55	5	1	13
HZ20		18.8	19.7	19.5	20.4	20.2	21.1	2	60	2	1	15
HZ22		20.9	21.9	21.6	22.6	22.3	23.3	2	65	2	1	17
HZ24		22.9	24.0	23.6	24.7	24.3	25.5	2	70	2	1	19
HZ27		25.2	26.6	26.2	27.6	27.2	28.6	2	80	2	1	21
HZ30		28.2	29.6	29.2	30.6	30.2	31.6	2	100	2	1	23
HZ33		31.2	32.6	32.2	33.6	33.2	34.6	2	120	2	1	25
HZ36		34.2	35.7	35.3	36.8	36.4	38.0	2	140	2	1	27

Note : The lower voltage types (HZ2 - HZ12) are available in 3 grades, "A" to "C", each with suffix "-1", "-2" or "-3"

For example the type with $V_Z = 8.5 - 8.9V$ is HZ9B-2

The higher voltage types are only available with suffix "-1", "-2" or "-3" (no grade) e.g. HZ36-3



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ⁽²⁾			Test Current	Dynamic Impedance ⁽³⁾		Max. Reverse Leakage Current		Temp. Coefficient of Zener Voltage	
		V _Z @ I _{ZT} (V)			I _{ZT}	Z _{ZT} @ I _{ZT}		I _R @ V _R		TK _{VZ} (%/K)	
		Min.	Nom.	Max.	(mA)	(Ω)	(mA)	(μA)	(V)	Min.	Max.

MM1Z2V4 Series, 0.5 W, Case Type : SOD-123



MM1Z2V4	4C	2.28	2.4	2.56	5.0	100	5	120	1.0	-0.09	-0.06
MM1Z2V7	4D	2.5	2.7	2.9	5.0	110	5	120	1.0	-0.09	-0.06
MM1Z3V0	4E	2.8	3.0	3.2	5.0	120	5	50	1.0	-0.08	-0.05
MM1Z3V3	4F	3.1	3.3	3.5	5.0	130	5	20	1.0	-0.08	-0.05
MM1Z3V6	4H	3.4	3.6	3.8	5.0	130	5	10	1.0	-0.08	-0.05
MM1Z3V9	4J	3.7	3.9	4.1	5.0	130	5	5.0	1.0	-0.08	-0.05
MM1Z4V3	4K	4.0	4.3	4.6	5.0	130	5	5.0	1.0	-0.06	-0.03
MM1Z4V7	4M	4.4	4.7	5.0	5.0	130	5	2.0	1.0	-0.05	+0.02
MM1Z5V1	4N	4.8	5.1	5.4	5.0	130	5	2.0	1.5	-0.02	+0.02
MM1Z5V6	4P	5.2	5.6	6.0	5.0	80	5	1.0	2.5	-0.05	+0.05
MM1Z6V2	4R	5.8	6.2	6.6	5.0	50	5	1.0	3.0	0.03	0.06
MM1Z6V8	4X	6.4	6.8	7.2	5.0	30	5	0.5	3.5	0.03	0.07
MM1Z7V5	4Y	7.0	7.5	7.9	5.0	30	5	0.5	4.0	0.03	0.07
MM1Z8V2	4Z	7.7	8.2	8.7	5.0	30	5	0.5	5.0	0.03	0.08
MM1Z9V1	5A	8.5	9.1	9.6	5.0	30	5	0.5	6.0	0.03	0.09
MM1Z10	5B	9.4	10	10.6	5.0	30	5	0.1	7.0	0.03	0.1
MM1Z11	5C	10.4	11	11.6	5.0	30	5	0.1	8.0	0.03	0.11
MM1Z12	5D	11.4	12	12.7	5.0	35	5	0.1	9.0	0.03	0.11
MM1Z13	5E	12.4	13	14.1	5.0	35	5	0.1	10	0.03	0.11
MM1Z15	5F	13.8	15	15.6	5.0	40	5	0.1	11	0.03	0.11
MM1Z16	5H	15.3	16	17.1	5.0	40	5	0.1	12	0.03	0.11
MM1Z18	5J	16.8	18	19.1	5.0	45	5	0.1	13	0.03	0.11
MM1Z20	5K	18.8	20	21.2	5.0	50	5	0.1	15	0.03	0.11
MM1Z22	5M	20.8	22	23.3	5.0	55	5	0.1	17	0.04	0.12
MM1Z24	5N	22.8	24	25.6	5.0	60	5	0.1	19	0.04	0.12
MM1Z27	5P	25.1	27	28.9	5.0	70	2	0.1	21	0.04	0.12
MM1Z30	5R	28.0	30	32.0	5.0	80	2	0.1	23	0.04	0.12
MM1Z33	5X	31.0	33	35.0	5.0	80	2	0.1	25	0.04	0.12
MM1Z36	5Y	34.0	36	38.0	5.0	90	2	0.1	27	0.04	0.12
MM1Z39	5Z	37.0	39	41.0	2.5	100	2	2.0	30	0.04	0.12
MM1Z43	6A	40.0	43	46.0	2.5	130	2	2.0	33	0.04	0.12
MM1Z47	6B	44.0	47	50.0	2.5	150	2	2.0	36	0.04	0.12
MM1Z51	6C	48.0	51	54.0	2.5	180	2	1.0	39	0.04	0.12
MM1Z56	6D	52.0	56	60.0	2.5	180	2	1.0	43	0.04	0.12
MM1Z62	6E	58.0	62	66.0	2.5	200	2	0.2	47	0.04	0.12
MM1Z68	6F	64.0	68	72.0	2.5	250	2	0.2	52	0.04	0.12
MM1Z75	6H	70.0	75	79.0	2.5	300	2	0.2	57	0.04	0.12

Notes :

- (1) The type number shown have a standard tolerance of $\pm 5\%$ on the nominal Zener Voltage.
- (2) V_Z is tested with pulses (20ms).
- (3) V_Z is measured at I_Z by given a very small A.C. current signal.



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

TYPE NO.	Marking	Zener Voltage ⁽¹⁾			Test Current	Dynamic Impedance ⁽²⁾		Max. Reverse Leakage Current		Temp. Coefficient of Zener Voltage	
		V _Z @ I _{ZT} (V)			I _{ZT}	Z _{ZT} @ I _{ZT}		I _R @ V _R		TK _{VZ} (%/K)	
		Min.	Nom.	Max.	(mA)	(Ω)	(mA)	(μA)	(V)	Min.	Max.

MM1Z2V7B Series, 0.5 W, Case Type : SOD-123



MM1Z2V7B	9D	2.65	2.7	2.95	5	110	5	120	1.0	-0.09	-0.06
MM1Z3V0B	9E	2.95	3.0	3.25	5	120	5	50	1.0	-0.08	-0.05
MM1Z3V3B	9F	3.25	3.3	3.55	5	130	5	20	1.0	-0.08	-0.05
MM1Z3V6B	9H	3.60	3.6	3.845	5	130	5	10	1.0	-0.08	-0.05
MM1Z3V9B	9J	3.89	3.9	4.16	5	130	5	5.0	1.0	-0.08	-0.05
MM1Z4V3B	9K	4.17	4.3	4.43	5	130	5	5.0	1.0	-0.06	-0.03
MM1Z4V7B	9M	4.55	4.7	4.80	5	130	5	2.0	1.0	-0.05	+0.02
MM1Z5V1B	9N	4.95	5.1	5.20	5	130	5	2.0	1.5	-0.02	+0.02
MM1Z5V6B	9P	5.45	5.6	5.73	5	80	5	1.0	2.5	-0.05	+0.05
MM1Z6V2B	9R	6.00	6.2	6.33	5	50	5	1.0	3.0	0.03	0.06
MM1Z6V8B	9X	6.65	6.8	7.00	5	30	5	0.5	3.5	0.03	0.07
MM1Z7V5B	9Y	7.28	7.5	7.70	5	30	5	0.5	4.0	0.03	0.07
MM1Z8V2B	9Z	8.02	8.2	8.45	5	30	5	0.5	5.0	0.03	0.08
MM1Z9V1B	0A	8.80	9.1	9.30	5	30	5	0.5	6.0	0.03	0.09
MM1Z10B	0B	9.75	10	10.30	5	30	5	0.1	7.0	0.03	0.10
MM1Z11B	0C	10.70	11	11.28	5	30	5	0.1	8.0	0.03	0.11
MM1Z12B	0D	11.70	12	12.30	5	35	5	0.1	9.0	0.03	0.11
MM1Z13B	0E	12.43	13	14.00	5	35	5	0.1	10	0.03	0.11
MM1Z15B	0F	13.80	15	15.56	5	40	5	0.1	11	0.03	0.11
MM1Z16B	0H	15.31	16	17.14	5	40	5	0.1	12	0.03	0.11
MM1Z18B	0J	16.89	18	19.08	5	45	5	0.1	13	0.03	0.11
MM1Z20B	0K	18.80	20	21.14	5	50	5	0.1	15	0.03	0.11
MM1Z22B	0M	20.81	22	23.25	5	55	5	0.1	17	0.04	0.12
MM1Z24B	0N	22.86	24	25.66	5	60	5	0.1	19	0.04	0.12
MM1Z27B	0P	25.10	27	28.90	5	70	2	0.1	21	0.04	0.12
MM1Z30B	0R	28.00	30	32.00	5	80	2	0.1	23	0.04	0.12
MM1Z33B	0X	31.00	33	35.00	5	80	2	0.1	25	0.04	0.12
MM1Z36B	0Y	34.00	36	38.00	5	90	2	0.1	27	0.04	0.12
MM1Z39B	0Z	37.00	39	41.00	5	100	2	2.0	30	0.04	0.12
MM1Z36B	0Y	34.00	36	38.00	5	90	2	0.1	27	0.04	0.12
MM1Z39B	0Z	37.00	39	41.00	5	100	2	2.0	30	0.04	0.12

Notes :

(1) V_Z is tested with pulses (20ms).

(2) V_Z is measured at I_Z by given a very small A.C. current signal.



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage ^(1,2)			Test Current	Maximum Reverse Leakage Current	
		V _Z @ I _{ZT} (V)			I _{ZT}	I _R @ V _R	
		Min.	Nom.	Max.	(μA)	(μA)	(V)

MM1Z4689 Series, 0.5 W, Case Type : SOD-123



MM1Z4689	BX	4.85	5.1	5.36	50	10	3.0
MM1Z4690	BY	5.32	5.6	5.88	50	10	4.0
MM1Z4691	BZ	5.89	6.2	6.51	50	10	5.0
MM1Z4692	CA	6.46	6.8	7.14	50	10	5.1
MM1Z4693	CB	7.13	7.5	7.88	50	10	5.7
MM1Z4694	CC	7.79	8.2	8.61	50	1.0	6.2
MM1Z4696	CE	8.65	9.1	9.56	50	1.0	6.9
MM1Z4697	CF	9.50	10	10.50	50	1.0	7.6
MM1Z4698	CH	10.45	11	11.50	50	0.05	8.4
MM1Z4699	CJ	11.40	12	12.60	50	0.05	9.1
MM1Z4700	CK	12.35	13	13.65	50	0.05	9.8
MM1Z4702	CN	14.25	15	15.75	50	0.05	11.4
MM1Z4703	CP	15.20	16	16.80	50	0.05	12.1
MM1Z4705	CX	17.10	18	18.90	50	0.05	13.6
MM1Z4707	CZ	19.00	20	21.00	50	0.01	15.2
MM1Z4708	DA	20.90	22	23.10	50	0.01	16.7
MM1Z4709	DB	22.80	24	25.20	50	0.01	18.2
MM1Z4711	DD	25.65	27	28.35	50	0.01	20.4
MM1Z4713	DF	28.50	30	31.50	50	0.01	22.8
MM1Z4714	DH	31.35	33	34.65	50	0.01	25.0
MM1Z4715	DJ	34.20	36	37.80	50	0.01	27.3
MM1Z4716	DK	37.05	39	40.95	50	0.01	29.6
MM1Z4717	DM	40.85	43	45.15	50	0.01	32.6

Notes :

(1) Tested with pulses $t_p = 20$ ms



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

Type No.	Marking	Zener Voltage			Test Current	Maximum Zener Impedance		Test Current	Maximum Reverse Leakage Current	
		V _Z @ I _{ZT} (V)			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R	
		Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)

MM1Z5221B Series, 0.5 W, Case Type : SOD-123



MM1Z5221B	A4	2.28	2.4	2.52	20	30	1200	0.25	100	1.0
MM1Z5223B	B4	2.57	2.7	2.84	20	30	1300	0.25	75	1.0
MM1Z5225B	C4	2.85	3.0	3.15	20	29	1600	0.25	50	1.0
MM1Z5226B	D4	3.14	3.3	3.47	20	28	1600	0.25	25	1.0
MM1Z5227B	E4	3.42	3.6	3.78	20	24	1700	0.25	15	1.0
MM1Z5228B	F4	3.71	3.9	4.10	20	23	1900	0.25	10	1.0
MM1Z5229B	H4	4.09	4.3	4.52	20	22	2000	0.25	5	1.0
MM1Z5230B	J4	4.47	4.7	4.94	20	19	1900	0.25	5	2.0
MM1Z5231B	K4	4.85	5.1	5.36	20	17	1600	0.25	5	2.0
MM1Z5232B	M4	5.32	5.6	5.88	20	11	1600	0.25	5	3.0
MM1Z5234B	N4	5.89	6.2	6.51	20	7	1000	0.25	5	4.0
MM1Z5235B	P4	6.46	6.8	7.14	20	5	750	0.25	3	5.0
MM1Z5236B	R4	7.13	7.5	7.88	20	6	500	0.25	3	6.0
MM1Z5237B	X4	7.79	8.2	8.61	20	8	500	0.25	3	6.5
MM1Z5239B	Y4	8.65	9.1	9.56	20	10	600	0.25	3	7.0
MM1Z5240B	Z4	9.50	10	10.50	20	17	600	0.25	3	8.0
MM1Z5241B	A5	10.45	11	11.50	20	22	600	0.25	2	8.4
MM1Z5242B	B5	11.40	12	12.60	20	30	600	0.25	1	9.1
MM1Z5243B	C5	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MM1Z5245B	D5	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MM1Z5246B	E5	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MM1Z5248B	F5	17.10	18	18.90	7.0	21	600	0.25	0.1	14
MM1Z5249B	K9	18.05	19	19.95	6.6	23	600	0.25	0.1	14
MM1Z5250B	H5	19.00	20	21.00	6.2	25	600	0.25	0.1	15
MM1Z5251B	J5	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MM1Z5252B	K5	22.80	24	25.20	5.2	33	600	0.25	0.1	18
MM1Z5253B	M9	23.75	25	26.25	5.0	35	600	0.25	0.1	19
MM1Z5254B	M5	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MM1Z5256B	N5	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MM1Z5257B	P5	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MM1Z5258B	R5	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MM1Z5259B	X5	37.05	39	40.95	3.2	80	800	0.25	0.1	30
MM1Z5260B	Y5	40.85	43	45.15	3.0	93	900	0.25	0.1	33
MM1Z5261B	Z5	44.65	47	49.35	2.7	105	1000	0.25	0.1	36
MM1Z5262B	A6	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
MM1Z5263B	B6	53.20	56	58.80	2.2	150	1300	0.25	0.1	43
MM1Z5265B	C6	58.90	62	65.10	2.0	185	1400	0.25	0.1	47
MM1Z5266B	D6	64.60	68	71.40	1.8	230	1600	0.25	0.1	52
MM1Z5267B	E6	71.25	75	78.75	1.7	270	1700	0.25	0.1	56

Notes: (1) V_Z is tested with pulses (20 ms)

(2) Nominal Zener voltage is measured with the device junction in thermal equilibrium at $T_L = 30^\circ C \pm 1^\circ C$

(3) Z_{ZT} and Z_{ZK} are measured by device drop across the device by the AC current applied.

The specified limits are for $I_{Z(AC)} = 0.1 I_{Z(DC)}$ with the AC frequency 1 KHz



Zener Diodes 0.50 W

Type No.		Zener Voltage $V_Z @ I_{ZT}^{(1)}$												Test Current	Maximum Zener Impedance			Maximum Reverse Current	
		Suffix A ⁽²⁾			Suffix B ⁽²⁾			Suffix C ⁽²⁾			Suffix D								
		Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Max.		I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{Zk} @ I_{Zk}$	I_{Zk}	$I_R @ V_R$
Axial Lead	SMD	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)

MTZJ / MMZJ Series, Case Type : DO-34 / Mini MELF



MTZJ2.0	MMZJ2.0	1.89	2.00	2.11	2.02	2.11	2.20	-	-	-	-	-	-	5	100	1000	0.5	120	0.5
MTZJ2.2	MMZJ2.2	2.11	2.20	2.29	2.22	2.32	2.42	-	-	-	-	-	-	5	100	1000	0.5	120	0.7
MTZJ2.4	MMZJ2.4	2.34	2.44	2.54	2.43	2.53	2.63	-	-	-	-	-	-	5	100	1000	0.5	120	1.0
MTZJ2.7	MMZJ2.7	2.54	2.65	2.76	2.69	2.8	2.91	-	-	-	-	-	-	5	100	1000	0.5	100	1.0
MTZJ3.0	MMZJ3.0	2.85	2.96	3.07	3.01	3.12	3.23	-	-	-	-	-	-	5	120	1000	0.5	50	1.0
MTZJ3.3	MMZJ3.3	3.16	3.27	3.38	3.32	3.43	3.54	-	-	-	-	-	-	5	120	1000	0.5	20	1.0
MTZJ3.6	MMZJ3.6	3.45	3.58	3.70	3.60	3.72	3.845	-	-	-	-	-	-	5	100	1000	1.0	10	1.0
MTZJ3.9	MMZJ3.9	3.74	3.88	4.01	3.89	4.03	4.16	-	-	-	-	-	-	5	100	1000	1.0	5	1.0
MTZJ4.3	MMZJ4.3	4.04	4.17	4.29	4.17	4.30	4.43	-	-	-	-	-	-	5	100	1000	1.0	5	1.0
MTZJ4.7	MMZJ4.7	4.44	4.56	4.67	4.55	4.68	4.80	-	-	-	-	-	-	5	80	900	0.5	5	1.0
MTZJ5.1	MMZJ5.1	4.81	4.94	5.06	4.94	5.07	5.20	5.08	5.23	5.37	-	-	-	5	70	1200	1.0	5	1.5
MTZJ5.6	MMZJ5.6	5.11	5.42	5.55	5.45	5.59	5.72	5.61	5.76	5.90	-	-	-	5	40	900	1.0	5	2.5
MTZJ6.2	MMZJ6.2	5.78	5.94	6.09	5.96	6.12	6.27	6.12	6.28	6.43	-	-	-	5	30	500	1.0	5	3.0
MTZJ6.8	MMZJ6.8	6.33	6.46	6.62	6.49	6.66	6.82	6.66	6.84	7.01	-	-	-	5	20	150	0.5	2	3.5
MTZJ7.5	MMZJ7.5	6.85	7.04	7.22	7.07	7.26	7.44	7.29	7.48	7.66	-	-	-	5	20	120	0.5	0.5	4.0
MTZJ8.2	MMZJ8.2	7.53	7.73	7.92	7.79	8.00	8.20	8.03	8.24	8.44	-	-	-	5	20	120	0.5	0.5	5.0
MTZJ9.1	MMZJ9.1	8.28	8.51	8.73	8.57	8.79	9.00	8.83	9.07	9.30	-	-	-	5	20	120	0.5	0.5	6.0
MTZJ10	MMZJ10	9.13	9.36	9.59	9.41	9.66	9.90	9.70	9.95	10.19	9.94	10.20	10.45	5	20	120	0.5	0.2	7.0
MTZJ11	MMZJ11	10.14	10.40	10.66	10.53	10.80	11.07	10.82	11.10	11.37	-	-	-	5	20	120	0.5	0.2	8.0
MTZJ12	MMZJ12	11.11	11.40	11.68	11.40	11.70	11.99	11.70	12.00	12.30	-	-	-	5	25	110	0.5	0.2	9.0
MTZJ13	MMZJ13	12.07	12.40	12.72	12.56	12.90	13.23	12.96	13.30	13.63	-	-	-	5	25	110	0.5	0.2	10
MTZJ15	MMZJ15	13.45	13.80	14.14	13.92	14.30	14.67	14.33	14.70	15.06	-	-	-	5	25	110	0.5	0.2	11
MTZJ16	MMZJ16	14.82	15.20	15.58	15.21	15.60	15.99	15.69	16.10	16.50	-	-	-	5	25	150	0.5	0.2	12
MTZJ18	MMZJ18	16.19	16.60	17.02	16.87	17.30	17.73	17.39	17.80	18.21	-	-	-	5	30	150	0.5	0.2	13
MTZJ20	MMZJ20	18.04	18.50	18.96	18.62	19.10	19.58	19.21	19.70	20.19	19.70	20.20	20.71	5	30	200	0.5	0.2	15
MTZJ22	MMZJ22	20.18	20.70	21.22	20.67	21.20	21.73	21.06	21.60	22.14	21.55	22.10	22.65	5	30	200	0.5	0.2	17
MTZJ24	MMZJ24	22.04	22.60	23.17	22.62	23.20	23.78	23.11	23.70	24.29	23.60	24.20	24.81	5	35	200	0.5	0.2	19
MTZJ27	MMZJ27	24.28	24.90	25.52	24.96	25.60	26.24	26.33	27.00	27.68	26.54	27.00	27.46	5	45	250	0.5	0.2	21
MTZJ30	MMZJ30	27.01	27.70	28.39	27.69	28.40	29.11	28.37	29.10	29.83	29.06	29.80	30.55	5	55	250	0.5	0.2	23
MTZJ33	MMZJ33	29.64	30.40	31.16	30.32	31.10	31.88	30.91	31.70	32.49	31.49	32.30	33.11	5	65	250	0.5	0.2	25
MTZJ36	MMZJ36	32.18	33.00	33.83	32.76	33.60	34.44	33.44	34.30	35.16	34.03	34.90	35.77	5	75	250	0.5	0.2	27
MTZJ39	MMZJ39	34.71	35.60	36.49	35.47	36.30	37.13	35.98	36.90	37.82	36.66	37.60	38.54	5	85	250	0.5	0.2	30

Note :

- (1) The Zener voltage is measured 40ms after power is supplied
- (2) When placing an order for an MTZJ or MMZJ type, please add suffix e.g. MTZJ2.0A, MTZJ2.0B.....MMZJ39C



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

Type Number	Zener Voltage $V_Z @ I_{ZT}$				Maximum Zener Impedance			Max. Reverse Leakage Current		Temp. coefficient of Zener Voltage TK_{VZ}	Admissible Zener Current I_{ZM} (mA)
	Nom.	Min	Max	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	at V_R		
	(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(% / K)	

MZ55C Series, 0.5 W, Case Type : M1A



MZ55C3V0	3.0	2.8	3.2	5.0	85	600	1.0	4.0	1.0	-0.08...-0.05	125
MZ55C3V3	3.3	3.1	3.5	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	115
MZ55C3V6	3.6	3.4	3.8	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	105
MZ55C3V9	3.9	3.7	4.1	5.0	85	600	1.0	2.0	1.0	-0.08...-0.05	95
MZ55C4V3	4.3	4.0	4.6	5.0	75	600	1.0	1.0	1.0	-0.06...-0.03	90
MZ55C4V7	4.7	4.4	5.0	5.0	60	600	1.0	1.0	1.0	-0.05...+0.02	85
MZ55C5V1	5.1	4.8	5.4	5.0	35	550	1.0	1.0	1.0	-0.02...+0.02	80
MZ55C5V6	5.6	5.2	6.0	5.0	25	450	1.0	1.0	1.0	-0.05...+0.05	70
MZ55C6V2	6.2	5.8	6.6	5.0	10	200	1.0	1.0	2.0	0.03...0.06	64
MZ55C6V8	6.8	6.4	7.2	5.0	8	150	1.0	1.0	3.0	0.03...0.07	58
MZ55C7V5	7.5	7.0	7.9	5.0	7	50	1.0	1.0	5.0	0.03...0.07	53
MZ55C8V2	8.2	7.7	8.7	5.0	7	50	1.0	1.0	6.2	0.03...0.08	47
MZ55C9V1	9.1	8.5	9.6	5.0	10	50	1.0	1.0	6.8	0.03...0.09	43
MZ55C10	10	9.4	10.6	5.0	15	70	1.0	1.0	7.5	0.03...0.10	40
MZ55C11	11	10.4	11.6	5.0	20	70	1.0	1.0	8.2	0.03...0.11	36
MZ55C12	12	11.4	12.7	5.0	20	90	1.0	1.0	9.1	0.03...0.11	32
MZ55C13	13	12.4	14.1	5.0	26	110	1.0	1.0	10.0	0.03...0.11	29
MZ55C14	14	13.1	15.0	5.0	28	110	1.0	1.0	10.5	0.03...0.11	28
MZ55C15	15	13.8	15.6	5.0	30	110	1.0	1.0	11	0.03...0.11	27
MZ55C16	16	15.3	17.1	5.0	40	170	1.0	1.0	12	0.03...0.11	24
MZ55C18	18	16.8	19.1	5.0	50	170	1.0	1.0	13	0.03...0.11	21
MZ55C20	20	18.8	21.2	5.0	55	220	1.0	1.0	15	0.03...0.11	20
MZ55C22	22	20.8	23.3	5.0	55	220	1.0	1.0	16	0.04...0.12	18
MZ55C24	24	22.8	25.6	5.0	80	220	1.0	1.0	18	0.04...0.12	16
MZ55C27	27	25.1	28.9	5.0	80	220	1.0	1.0	20	0.04...0.12	14
MZ55C30	30	28	32	5.0	80	220	1.0	1.0	22	0.04...0.12	13
MZ55C33	33	31	35	5.0	80	220	1.0	1.0	24	0.04...0.12	12
MZ55C36	36	34	38	5.0	80	220	1.0	1.0	27	0.04...0.12	11
MZ55C39	39	37	41	2.5	90	500	0.5	1.0	30	0.04...0.12	10
MZ55C43	43	40	46	2.5	90	500	0.5	1.0	33	0.04...0.12	9.2
MZ55C47	47	44	50	2.5	110	600	0.5	1.0	36	0.04...0.12	8.5
MZ55C51	51	48	54	2.5	125	700	0.5	1.0	39	0.04...0.12	7.8
MZ55C56	56	52	60	2.5	135	700	0.5	1.0	43	0.04...0.12	7.0
MZ55C62	62	58	66	2.5	150	1000	0.5	1.0	47	0.04...0.12	6.4
MZ55C68	68	64	72	2.5	200	1000	0.5	1.0	51	0.04...0.12	5.9
MZ55C75	75	70	79	2.5	250	1000	0.5	1.0	56	0.04...0.12	5.3
MZ55C82	82	77	87	2.5	300	1500	0.5	1.0	62	0.05...0.12	4.8
MZ55C91	91	85	96	1.0	450	2000	0.5	1.0	68	0.05...0.12	4.4
MZ55C100	100	94	106	1.0	450	5000	0.5	1.0	75	0.05...0.12	4.0
MZ55C110	110	104	116	1.0	600	5000	0.5	1.0	82	0.05...0.12	3.6
MZ55C120	120	114	127	1.0	800	5500	0.5	1.0	91	0.05...0.12	3.3
MZ55C130	130	124	141	1.0	950	6000	0.5	1.0	100	0.05...0.12	3.1
MZ55C150	150	138	156	1.0	1250	6500	0.5	1.0	110	0.05...0.12	3.7
MZ55C160	160	153	171	1.0	1400	7000	0.5	1.0	120	0.05...0.12	2.5
MZ55C180	180	168	191	1.0	1700	8500	0.5	1.0	130	0.05...0.12	2.2
MZ55C190	190	180	199	1.0	1850	9500	0.5	1.0	140	0.05...0.12	2.1
MZ55C200	200	188	212	1.0	2000	10000	0.5	1.0	150	0.05...0.12	2.0

Note :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$.
For $\pm 2\%$ tolerance altered the fifth letter of type from "C" to be "B"



Zener Diodes 0.50 W

Type No.	Suffix ⁽²⁾	Zener Voltage ⁽¹⁾			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current		Zener Voltage Temperature	
		V_Z (V)			$Z_Z(\Omega)$		$Z_{ZK}(\Omega)$		$I_R(\mu A)$		$\gamma_Z(mV/^\circ C)$	
		Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)

RD2.0E Series, 0.5 W, Case Type : DO-35



RD2.0E	B	1.88	2.20	20	140	20	2000	1.0	120	0.5	-1.0	20
	B1	1.88	2.10									
	B2	2.02	2.20									
RD2.2E	B	2.12	2.41	20	120	20	2000	1.0	120	0.7	-1.5	20
	B1	2.12	2.3									
	B2	2.22	2.41									
RD2.4E	B	2.33	2.63	20	100	20	2000	1.0	120	1.0	-1.5	20
	B1	2.33	2.52									
	B2	2.43	2.63									
RD2.7E	B	2.54	2.91	20	100	20	1000	1.0	100	1.0	-1.5	20
	B1	2.54	2.75									
	B2	2.69	2.91									
RD3.0E	B	2.85	3.22	20	80	20	1000	1.0	50	1.0	-2.0	20
	B1	2.85	3.07									
	B2	3.01	3.22									
RD3.3E	B	3.16	3.53	20	70	20	1000	1.0	20	1.0	-2.0	20
	B1	3.16	3.38									
	B2	3.32	3.53									
RD3.6E	B	3.47	3.83	20	60	20	1000	1.0	10	1.0	-2.0	20
	B1	3.47	3.68									
	B2	3.62	3.83									
RD3.9E	B	3.77	4.14	20	50	20	1000	1.0	5.0	1.0	-2.0	20
	B1	3.77	3.98									
	B2	3.92	4.14									
RD4.3E	B	4.05	4.53	20	40	20	1000	1.0	5.0	1.0	-1.5	20
	B1	4.05	4.26									
	B2	4.20	4.40									
	B3	4.34	4.53									
RD4.7E	B	4.47	4.91	20	25	20	900	1.0	5.0	1.0	-1.5	20
	B1	4.47	4.65									
	B2	4.59	4.77									
	B3	4.71	4.91									
RD5.1E	B	4.85	5.35	20	20	20	800	1.0	5.0	1.5	0.5	20
	B1	4.85	5.03									
	B2	4.97	5.18									
	B3	5.12	5.35									
RD5.6E	B	5.29	5.88	20	13	20	500	1.0	5.0	2.5	1.5	20
	B1	5.29	5.52									
	B2	5.46	5.70									
	B3	5.64	5.88									
RD6.2E	B	5.81	6.40	20	10	20	300	1.0	5.0	3.0	2.0	20
	B1	5.81	6.06									
	B2	5.99	6.24									
	B3	6.16	6.40									



Zener Diodes 0.50 W

Type No.	Suffix ⁽²⁾	Zener Voltage ⁽¹⁾			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current		Zener Voltage Temperature	
		V_Z (V)			$Z_Z(\Omega)$		$Z_{ZK}(\Omega)$		$I_R(\mu A)$		$\gamma_Z(mV/^\circ C)$	
		Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)

RD2.0E Series, 0.5 W, Case Type : DO-35



RD6.8E	B	6.32	6.97	20	8	20	150	0.5	2.0	3.5	2.5	20
	B1	6.32	6.59									
	B2	6.52	6.79									
	B3	6.70	6.97									
RD7.5E	B	6.88	7.64	20	8	20	120	0.5	0.5	4.0	3.0	20
	B1	6.88	7.19									
	B2	7.11	7.41									
	B3	7.33	7.64									
RD8.2E	B	7.56	8.41	20	8	20	120	0.5	0.5	5.0	4.0	20
	B1	7.56	7.90									
	B2	7.82	8.15									
	B3	8.07	8.41									
RD9.1E	B	8.33	9.29	20	8	20	120	0.5	0.5	6.0	4.5	20
	B1	8.33	8.70									
	B2	8.61	8.99									
	B3	8.89	9.29									
RD10E	B	9.19	10.30	20	8	20	120	0.5	0.2	7.0	5.5	20
	B1	9.19	9.59									
	B2	9.48	9.90									
	B3	9.82	10.30									
RD11E	B	10.18	11.26	10	10	10	120	0.5	0.2	8.0	6.5	10
	B1	10.18	10.63									
	B2	10.50	10.95									
	B3	10.82	11.26									
RD12E	B	11.13	12.30	10	12	10	110	0.5	0.2	9.0	7.5	10
	B1	11.13	11.63									
	B2	11.50	11.92									
	B3	11.80	12.30									
RD13E	B	12.18	13.62	10	14	10	110	0.5	0.2	10	8.5	10
	B1	12.18	12.71									
	B2	12.59	13.16									
	B3	13.03	13.62									
RD15E	B	13.48	15.02	10	16	10	110	0.5	0.2	11	10	10
	B1	13.48	14.09									
	B2	13.95	14.56									
	B3	14.40	15.02									
RD16E	B	14.87	16.50	10	18	10	150	0.5	0.2	12	11	10
	B1	14.87	15.50									
	B2	13.55	15.93									
	B3	15.79	16.50									
RD18E	B	16.34	18.30	10	23	10	150	0.5	0.2	13	13	10
	B1	16.34	17.06									
	B2	16.90	17.67									
	B3	17.51	18.30									



Zener Diodes 0.50 W

Type No.	Suffix ⁽²⁾	Zener Voltage ⁽¹⁾			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current		Zener Voltage Temperature	
		V_Z (V)			$Z_Z(\Omega)$		$Z_{ZK}(\Omega)$		$I_R(\mu A)$		$\gamma_Z(mV/^\circ C)$	
		Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)

RD2.0E Series, 0.5 W, Case Type : DO-35



RD20E	B	18.11	20.72	10	28	10	200	0.5	0.2	15	15	10
	B1	18.11	18.92									
	B2	18.73	19.57									
	B3	19.38	20.22									
	B4	19.88	20.72									
RD22E	B	20.23	22.61	5	30	5	200	0.5	0.2	17	17	5.0
	B1	20.23	21.08									
	B2	20.76	21.65									
	B3	21.22	22.09									
	B4	21.68	22.61									
RD24E	B	22.26	24.81	5	35	5	200	0.5	0.2	19	19	5.0
	B1	22.26	23.12									
	B2	22.75	23.75									
	B3	23.29	24.27									
	B4	23.81	24.81									
RD27E	B	24.26	27.64	5	45	5	250	0.5	0.2	21	21	5.0
	B1	24.26	25.52									
	B2	24.97	26.26									
	B3	25.63	26.95									
	B4	26.29	27.64									
RD30E	B	26.99	30.51	5	55	5	250	0.5	0.2	23	24	5.0
	B1	26.99	28.39									
	B2	27.70	29.13									
	B3	28.36	29.82									
	B4	29.02	30.51									
RD33E	B	29.63	33.11	5	65	5	250	0.5	0.2	25	26	5.0
	B1	29.68	31.22									
	B2	30.32	31.88									
	B3	30.90	32.50									
	B4	31.49	33.11									
RD36E	B	32.14	35.77	5	75	5	250	0.5	0.2	27	29	5.0
	B1	32.14	33.79									
	B2	32.79	34.49									
	B3	33.40	35.13									
	B4	34.01	35.77									
RD39E	B	34.68	40.80	5	85	5	250	0.5	0.2	30	32	5.0
	B1	34.68	36.47									
	B2	35.36	37.19									
	B3	36.00	37.85									
	B4	36.63	38.52									

Notes:

- (1) The zener voltage (V_Z) is tested for 40 ms after power is supplied
- (2) When placing an order for an RD2.0E type, please add suffix e.g. RD2.0EB, RD2.0EB1 RD39EB4
The B grade is a wide specification, covering full voltage range for suffix "B1" to "B4"



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}^{(1)}$		Test Current I_{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Current At V_R	
	Min.	Max.		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	V_R
	(V)	(V)		(Ω)	(Ω)	(mA)	(μ A)	(V)

RLZ Series, Case Type : MiniMELF



RLZ3.6B	3.60	3.85	20	60	1000	1.0	10	1.0
RLZ3.9B	3.89	4.16	20	50	1000	1.0	5	1.0
RLZ4.3B	4.17	4.43	20	40	1000	1.0	5	1.0
RLZ4.7B	4.55	4.80	20	25	900	1.0	5	1.0
RLZ5.1B	4.94	5.20	20	20	800	1.0	5	1.5
RLZ5.6B	5.45	5.73	20	13	500	1.0	5	2.5
RLZ6.2B	5.96	6.27	20	10	300	1.0	5	3.0
RLZ6.8B	6.49	6.83	20	8	150	0.5	2	3.5
RLZ7.5B	7.07	7.45	20	8	120	0.5	0.5	4.0
RLZ8.2B	7.78	8.19	20	8	120	0.5	0.5	5.0
RLZ9.1B	8.57	9.01	20	8	120	0.5	0.5	6.0
RLZ10B	9.41	9.90	20	8	120	0.5	0.2	7.0
RLZ11B	10.50	11.05	10	10	120	0.5	0.2	8.0
RLZ12B	11.44	12.03	10	12	110	0.5	0.2	9.0
RLZ13B	12.55	13.21	10	14	110	0.5	0.2	10
RLZ15B	13.89	14.62	10	16	110	0.5	0.2	11
RLZ16B	15.25	16.04	10	18	150	0.5	0.2	12
RLZ18B	16.82	17.70	10	23	150	0.5	0.2	13
RLZ20B	18.63	19.59	10	28	200	0.5	0.2	15
RLZ22B	20.64	21.71	5	30	200	0.5	0.2	17
RLZ24B	22.61	23.77	5	35	200	0.5	0.2	19
RLZ27B	24.97	26.26	5	45	250	0.5	0.2	21
RLZ30B	27.70	29.13	5	55	250	0.5	0.2	23
RLZ33B	30.32	31.88	5	65	250	0.5	0.2	25
RLZ36B	32.79	34.49	5	75	250	0.5	0.2	27
RLZ39B	35.36	37.19	5	85	250	0.5	0.2	30

Note :

(1) The Zener voltage is measured 40ms after power is supplied



Zener Diodes 0.50 W

Type	Zener Voltage $V_Z @ I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current			Temp. coefficient of Zener Voltage
	Nom	I_{ZT}	V_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	$I_R^{(2)}$	at V_R	$\alpha_{vz}(\% / K)$
	(V)	(mA)	(V) ⁽¹⁾	(Ω)	(Ω)	(mA)	(μA)	(μA)	(V)	

TZMC Series, 0.5 W, Case Type : Mini MELF



TZMC2V4	2.4	5	2.28 to 2.56	< 85	< 600	1.0	< 50	< 100	1.0	-0.09...-0.06
TZMC2V7	2.7	5	2.5 to 2.9	< 85	< 600	1.0	< 10	< 50	1.0	-0.09...-0.06
TZMC3V0	3.0	5	2.8 to 3.2	< 90	< 600	1.0	< 4	< 40	1.0	-0.08...-0.05
TZMC3V3	3.3	5	3.1 to 3.5	< 90	< 600	1.0	< 2	< 40	1.0	-0.08...-0.05
TZMC3V6	3.6	5	3.4 to 3.8	< 90	< 600	1.0	< 2	< 40	1.0	-0.08...-0.05
TZMC3V9	3.9	5	3.7 to 4.1	< 90	< 600	1.0	< 2	< 40	1.0	-0.08...-0.05
TZMC4V3	4.3	5	4.0 to 4.6	< 90	< 600	1.0	< 1	< 20	1.0	-0.06...-0.03
TZMC4V7	4.7	5	4.4 to 5.0	< 80	< 600	1.0	< 0.5	< 10	1.0	-0.05...-0.02
TZMC5V1	5.1	5	4.8 to 5.4	< 60	< 550	1.0	< 0.1	< 2	1.0	-0.02...+0.02
TZMC5V6	5.6	5	5.2 to 6.0	< 40	< 450	1.0	< 0.1	< 2	1.0	-0.05...+0.05
TZMC6V2	6.2	5	5.8 to 6.6	< 10	< 200	1.0	< 0.1	< 2	2.0	-0.03...+0.06
TZMC6V8	6.8	5	6.4 to 7.2	< 8	< 150	1.0	< 0.1	< 2	3.0	0.03...0.07
TZMC7V5	7.5	5	7.0 to 7.9	< 7	< 50	1.0	< 0.1	< 2	5.0	0.03...0.07
TZMC8V2	8.2	5	7.7 to 8.7	< 7	< 50	1.0	< 0.1	< 2	6.2	0.03...0.08
TZMC9V1	9.1	5	8.5 to 9.6	< 10	< 50	1.0	< 0.1	< 2	6.8	0.03...0.09
TZMC10	10	5	9.4 to 10.6	< 15	< 70	1.0	< 0.1	< 2	7.5	0.03...0.10
TZMC11	11	5	10.4 to 11.6	< 20	< 70	1.0	< 0.1	< 2	8.2	0.03...0.11
TZMC12	12	5	11.4 to 12.7	< 20	< 90	1.0	< 0.1	< 2	9.1	0.03...0.11
TZMC13	13	5	12.4 to 14.1	< 26	< 110	1.0	< 0.1	< 2	10	0.03...0.11
TZMC15	15	5	13.8 to 15.6	< 30	< 110	1.0	< 0.1	< 2	11	0.03...0.11
TZMC16	16	5	15.3 to 17.1	< 40	< 170	1.0	< 0.1	< 2	12	0.03...0.11
TZMC18	18	5	16.8 to 19.1	< 50	< 170	1.0	< 0.1	< 2	13	0.03...0.11
TZMC20	20	5	18.8 to 21.2	< 55	< 220	1.0	< 0.1	< 2	15	0.03...0.11
TZMC22	22	5	20.8 to 23.3	< 55	< 220	1.0	< 0.1	< 2	16	0.04...0.12
TZMC24	24	5	22.8 to 25.6	< 80	< 220	1.0	< 0.1	< 2	18	0.04...0.12
TZMC27	27	5	25.1 to 28.9	< 80	< 220	1.0	< 0.1	< 2	20	0.04...0.12
TZMC30	30	5	28 to 32	< 80	< 220	1.0	< 0.1	< 2	22	0.04...0.12
TZMC33	33	5	31 to 35	< 80	< 220	1.0	< 0.1	< 2	24	0.04...0.12
TZMC36	36	5	34 to 38	< 80	< 220	1.0	< 0.1	< 2	27	0.04...0.12
TZMC39	39	2.5	37 to 41	< 90	< 500	1.0	< 0.1	< 5	30	0.04...0.12
TZMC43	43	2.5	40 to 46	< 90	< 600	0.5	< 0.1	< 5	33	0.04...0.12
TZMC47	47	2.5	44 to 50	< 110	< 700	0.5	< 0.1	< 5	36	0.04...0.12
TZMC51	51	2.5	48 to 54	< 125	< 700	0.5	< 0.1	< 10	39	0.04...0.12
TZMC56	56	2.5	52 to 60	< 135	< 1000	0.5	< 0.1	< 10	43	0.04...0.12
TZMC62	62	2.5	58 to 66	< 150	< 1000	0.5	< 0.1	< 10	47	0.04...0.12
TZMC68	68	2.5	64 to 72	< 200	< 1000	0.5	< 0.1	< 10	51	0.04...0.12
TZMC75	75	2.5	70 to 79	< 250	< 1500	0.5	< 0.1	< 10	56	0.04...0.12

Notes :

(1) Tighter tolerances are available on request:

TZMA... $\pm 1\%$ of V_{Znom}

TZMB... $\pm 2\%$ of V_{Znom}

TZMF... $\pm 3\%$ of V_{Znom}

(2) At $T_j = 150^\circ C$



Zener Diodes 0.50 W

Type No.	Zener Voltage $V_Z @ I_{ZT}$		Dynamic Resistance		Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage At I_{ZT}		Admissible Zener Current ⁽²⁾
	Nom ⁽¹⁾	I_{ZT}	at $I_Z = 5\text{mA}$ $f = 1\text{ kHz}$	at $I_Z = 1\text{mA}$ $f = 1\text{ kHz}$	I_R	at V_R	$\alpha_{VZ}(10^{-4} / ^\circ\text{C})$		
	(V)	(mA)	$r_{Zj} (\Omega)$	$r_{Zj} (\Omega)$	(μA)	(V)	min.	max.	(mA)

ZMM Series, 0.5 W, Case Type : Mini MELF



ZMM2.4	2.4	5	< 100	< 600	50	0.8	-10	-5	175
ZMM2.7	2.7	5	75 (< 83)	< 500	20	0.8	-9	-4	160
ZMM3.0	3.0	5	80 (< 95)	< 500	10	0.8	-9	-3	140
ZMM3.3	3.3	5	80 (< 95)	< 500	6.0	0.8	-8	-3	130
ZMM3.6	3.6	5	80 (< 95)	< 500	6.0	0.8	-8	-3	120
ZMM3.9	3.9	5	80 (< 95)	< 500	1.6	0.8	-7	-3	110
ZMM4.3	4.3	5	80 (< 95)	< 500	1.0	0.8	-6	-1	100
ZMM4.7	4.7	5	70 (< 78)	< 500	0.1	0.8	-5	+2	90
ZMM5.1	5.1	5	30 (< 60)	< 480	0.1	0.8	-3	+4	80
ZMM5.6	5.6	5	10 (< 40)	< 400	0.1	1	-2	+6	70
ZMM6.2	6.2	5	4.8 (< 10)	< 200	0.1	2	-1	+7	64
ZMM6.8	6.8	5	4.5 (< 8)	< 150	0.1	3	+2	+7	58
ZMM7.5	7.5	5	4 (< 7)	< 50	0.1	5	+3	+7	53
ZMM8.2	8.2	5	4.5 (< 7)	< 50	0.1	6	+4	+7	47
ZMM9.1	9.1	5	4.8 (< 10)	< 50	0.1	7	+5	+8	43
ZMM10	10	5	5.2 (< 15)	< 70	0.1	7.5	+5	+8	40
ZMM11	11	5	6 (< 20)	< 70	0.1	8.5	+5	+9	36
ZMM12	12	5	7 (< 20)	< 90	0.1	9	+6	+9	32
ZMM13	13	5	9 (< 25)	< 110	0.1	10	+7	+9	29
ZMM15	15	5	11 (< 30)	< 110	0.1	11	+7	+9	27
ZMM16	16	5	13 (< 40)	< 170	0.1	12	+8	+9.5	24
ZMM18	18	5	18 (< 50)	< 170	0.1	14	+8	+9.5	21
ZMM20	20	5	20 (< 50)	< 220	0.1	15	+8	+10	20
ZMM22	22	5	25 (< 55)	< 220	0.1	17	+8	+10	18
ZMM24	24	5	28 (< 80)	< 220	0.1	18	+8	+10	16
ZMM27	27	5	30 (< 80)	< 250	0.1	20	+8	+10	14
ZMM30	30	5	35 (< 80)	< 250	0.1	22.5	+8	+10	13
ZMM33	33	5	40 (< 80)	< 250	0.1	25	+8	+10	12
ZMM36	36	5	40 (< 90)	< 250	0.1	27	+8	+10	11
ZMM39	39	5	50 (< 90)	< 300	0.1	29	+10	+12	10
ZMM43	43	5	60 (< 100)	< 700	0.1	32	+10	+12	9.2
ZMM47	47	5	70 (< 100)	< 750	0.1	35	+10	+12	8.5
ZMM51	51	5	70 (< 100)	< 750	0.1	38	+10	+12	7.8
ZMM56	56	2.5	< 135 ⁽³⁾	< 1000 ⁽⁴⁾	0.1	42	+10 (typ.)		7.1
ZMM62	62	2.5	< 150 ⁽³⁾	< 1000 ⁽⁴⁾	0.1	47	+ 10 (typ.)		6.4
ZMM68	68	2.5	< 200 ⁽³⁾	< 1000 ⁽⁴⁾	0.1	51	+ 10 (typ.)		5.8
ZMM75	75	2.5	< 250 ⁽³⁾	< 1500 ⁽⁴⁾	0.1	55	+ 10 (typ.)		5.3

Notes:

- (1) Tested with pulse $t_p = 5\text{ ms}$
- (2) Valid provided that leads are kept at ambient temperature
- (3) At $I_Z = 2.5\text{mA}$
- (4) At $I_Z = 0.5\text{mA}$
- (5) Standard zener voltage tolerance is $\pm 5\%$. Other tolerances are available upon request
- (6) $V_F = 1.25\text{ Vmax. @ } I_F = 200\text{ mA}$



Zener Diodes 0.50 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}	$I_{RM}^{(2)}$
	(V)	(mA)		(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)

Z043 Series, 0.5 W, Case Type : DO-41



Z043	43	2.75	70	1500	0.25	5.0	32	11.0	52
Z047	47	2.40	80	1500	0.25	5.0	35	9.6	47
Z051	51	2.23	95	1500	0.25	5.0	38	8.9	44
Z056	56	2.00	110	2000	0.25	5.0	42	8.0	40
Z062	62	1.83	125	2000	0.25	5.0	47	7.3	36
Z068	68	1.65	150	2000	0.25	5.0	52	6.6	33
Z075	75	1.50	175	2000	0.25	5.0	57	6.0	30
Z082	82	1.37	200	3000	0.25	5.0	62	5.5	27
Z091	91	1.25	250	3000	0.25	5.0	73	5.0	24
Z0100	100	1.12	350	3000	0.25	5.0	76	4.5	22
Z0110	110	1.00	450	4000	0.25	5.0	83	4.1	20
Z0120	120	0.95	550	4500	0.25	5.0	91	3.8	18
Z0130	130	0.88	700	5000	0.25	5.0	98	3.5	17
Z0150	150	0.75	1000	6000	0.25	5.0	114	3.0	15
Z0160	160	0.70	1100	6500	0.25	5.0	121	2.8	14
Z0180	180	0.62	1400	7000	0.25	5.0	136	2.5	12.5
Z0190	190	0.57	1400	7500	0.25	5.0	144	2.3	11.8
Z0200	200	0.55	1700	8000	0.25	5.0	152	2.2	11.2

Notes :

- The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 10\%$
Add suffix "A" for $\pm 5\%$ tolerance, add suffix "B" for $\pm 2\%$ tolerance
- Surge current is a non-repetitive 8.3ms square pulse width wave or equivalent sine-wave superimposed on I_{ZT} as per JEDEC method



Zener Diodes 0.50 W

Type No.	Zener Voltage		Dynamic Resistance		Reverse Voltage	Temp. coefficient of Zener Voltage At I _{ZT}		Admissible Zener Current ⁽²⁾
	V _Z @ I _{ZT}		at I _Z =5mA	at I _Z =1mA				
	Nom ⁽¹⁾	I _{ZT}	f = 1 kHz	f = 1 kHz	at I _R = 100 nA	α _{vz} (10 ⁻⁴ / °C)		
	(V)	(mA)	r _{zj} (Ω)	r _{zj} (Ω)	V _R (V)	min.	max.	

ZPD Series, 0.5 W, Case Type : DO-35



ZPD2.7	2.7	5	6.5 (<8)	< 500	-	-9	-4	160
ZPD3.0	3.0	5	75 (<83)	< 500	-	-9	-3	140
ZPD3.3	3.3	5	80 (<95)	< 500	-	-8	-3	130
ZPD3.6	3.6	5	80 (<95)	< 500	-	-8	-3	120
ZPD3.9	3.9	5	80 (<95)	< 500	-	-7	-3	110
ZPD4.3	4.3	5	80 (<95)	< 500	-	-6	-1	100
ZPD4.7	4.7	5	70 (<78)	< 500	-	-5	+2	90
ZPD5.1	5.1	5	30 (<60)	< 480	> 0.8	-3	+4	80
ZPD5.6	5.6	5	10 (<40)	< 400	> 1	-2	+6	70
ZPD6.2	6.2	5	4.8 (<10)	< 200	> 2	-1	+7	64
ZPD6.8	6.8	5	4.5 (<8)	< 150	> 3	+2	+7	58
ZPD7.5	7.5	5	4.0 (<7)	< 50	> 5	+3	+7	53
ZPD8.2	8.2	5	4.5 (<7)	< 50	> 6	+4	+7	47
ZPD9.1	9.1	5	4.8 (<10)	< 50	> 7	+5	+8	43
ZPD10	10	5	5.2 (<15)	< 70	> 7.5	+5	+8	40
ZPD11	11	5	6 (<20)	< 70	> 8.5	+5	+9	36
ZPD12	12	5	7 (<20)	< 90	> 9	+6	+9	32
ZPD13	13	5	9 (<25)	< 110	> 10	+7	+9	29
ZPD15	15	5	11 (<30)	< 110	> 11	+7	+9	27
ZPD16	16	5	13 (<40)	< 170	> 12	+8	+9.5	24
ZPD18	18	5	18 (<50)	< 170	> 14	+8	+9.5	21
ZPD20	20	5	20 (<50)	< 220	> 15	+8	+10	20
ZPD22	22	5	25 (<55)	< 220	> 17	+8	+10	18
ZPD24	24	5	28 (<80)	< 220	> 18	+8	+10	16
ZPD27	27	5	30 (<80)	< 250	> 20	+8	+10	14
ZPD30	30	5	35 (<80)	< 250	> 22.5	+8	+10	13
ZPD33	33	5	40 (<80)	< 250	> 25	+8	+10	12
ZPD36	36	5	40 (<90)	< 250	> 27	+8	+10	11
ZPD39	39	5	50 (<90)	< 300	> 29	+10	+12	10
ZPD43	43	5	60 (<100)	< 700	> 32	+10	+12	9.2
ZPD47	47	5	70 (<100)	< 750	> 35	+10	+12	8.5
ZPD51	51	5	70 (<100)	< 750	> 38	+10	+12	7.8
ZPD56	56	2.5	<135 ⁽³⁾	< 1000 ⁽⁴⁾	> 42	+10 (typ.)		7.1
ZPD62	62	2.5	<150 ⁽³⁾	< 1000 ⁽⁴⁾	> 47	+10 (typ.)		6.4
ZPD68	68	2.5	<200 ⁽³⁾	< 1000 ⁽⁴⁾	> 51	+10 (typ.)		5.8
ZPD75	75	2.5	<250 ⁽³⁾	<1500 ⁽⁴⁾	> 55	+10 (typ.)		5.3

Notes :

- (1) Tested with pulse $t_p = 5$ ms
- (2) Valid provided that leads are at distance of 4 mm from case and kept at ambient temperature
- (3) At $I_Z = 2.5mA$
- (4) At $I_Z = 0.5mA$
- (5) The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _Z @I _{ZT} ⁽²⁾	I _{ZT}	Z _{zT} @ I _{ZT}	Z _{zK} @ I _{zK}	I _{zK}	I _R @ V _R		I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

1N4728/SZ10 Series, 1 W, Case Type : DO-41/SMA

1N4728	SZ103D	3.3	76.0	10	400	1.0	100	1.0	276
1N4729	SZ103G	3.6	69.0	10	400	1.0	100	1.0	252
1N4730	SZ103J	3.9	64.0	9.0	400	1.0	50	1.0	234
1N4731	SZ104D	4.3	58.0	9.0	400	1.0	10	1.0	217
1N4732	SZ104H	4.7	53.0	8.0	500	1.0	10	1.0	193
1N4733	SZ105B	5.1	49.0	7.0	550	1.0	10	1.0	178
1N4734	SZ105G	5.6	45.0	5.0	600	1.0	10	2.0	162
1N4735	SZ106C	6.2	41.0	2.0	700	1.0	10	3.0	146
1N4736	SZ106I	6.8	37.0	3.5	700	1.0	10	4.0	133
1N4737	SZ107F	7.5	34.0	4.0	700	0.5	10	5.0	121
1N4738	SZ108C	8.2	31.0	4.5	700	0.5	10	6.0	110
1N4739	SZ109B	9.1	28.0	5.0	700	0.5	10	7.0	100
1N4740	SZ1010	10	25.0	7.0	700	0.25	10	7.6	91
1N4741	SZ1011	11	23.0	8.0	700	0.25	5.0	8.4	83
1N4742	SZ1012	12	21.0	9.0	700	0.25	5.0	9.1	76
1N4743	SZ1013	13	19.0	10	700	0.25	5.0	9.9	69
1N4744	SZ1015	15	17.0	14	700	0.25	5.0	11.4	61
1N4745	SZ1016	16	15.5	16	700	0.25	5.0	12.2	57
1N4746	SZ1018	18	14.0	20	750	0.25	5.0	13.7	50
1N4747	SZ1020	20	12.5	22	750	0.25	5.0	15.2	45
1N4748	SZ1022	22	11.5	23	750	0.25	5.0	16.7	41
1N4749	SZ1024	24	10.5	25	750	0.25	5.0	18.2	38
1N4750	SZ1027	27	9.5	35	750	0.25	5.0	20.6	34
1N4751	SZ1030	30	8.5	40	1000	0.25	5.0	22.8	30
1N4752	SZ1033	33	7.5	45	1000	0.25	5.0	25.1	27
1N4753	SZ1036	36	7.0	50	1000	0.25	5.0	27.4	25
1N4754	SZ1039	39	6.5	60	1000	0.25	5.0	29.7	23
1N4755	SZ1043	43	6.0	70	1500	0.25	5.0	32.7	22
1N4756	SZ1047	47	5.5	80	1500	0.25	5.0	35.8	19
1N4757	SZ1051	51	5.0	95	1500	0.25	5.0	38.8	18
1N4758	SZ1056	56	4.5	110	2000	0.25	5.0	42.6	16
1N4759	SZ1062	62	4.0	125	2000	0.25	5.0	47.1	14
1N4760	SZ1068	68	3.7	150	2000	0.25	5.0	51.7	13
1N4761	SZ1075	75	3.3	175	2000	0.25	5.0	56.0	12
1N4762	SZ1082	82	3.0	200	3000	0.25	5.0	62.2	11
1N4763	SZ1091	91	2.8	250	3000	0.25	5.0	69.2	10
1N4764	SZ10B0	100	2.5	350	3000	0.25	5.0	76.0	9.0
Z1110	SZ10B1	110	2.3	450	4000	0.25	5.0	83.6	8.6
Z1120	SZ10B2	120	2.0	550	4500	0.25	5.0	91.2	7.8
Z1130	SZ10B3	130	1.9	700	5000	0.25	5.0	98.8	7.0
Z1150	SZ10B5	150	1.7	1000	6000	0.25	5.0	114.0	6.4
Z1160	SZ10B6	160	1.6	1100	6500	0.25	5.0	121.6	5.8
Z1180	SZ10B8	180	1.4	1200	7000	0.25	5.0	136.8	5.2
Z1200	SZ10D0	200	1.2	1900	9990	0.25	5.0	152.0	4.7
Z1220	SZ10D2	220	1.0	1600	8000	0.25	5.0	167.2	4.0
Z1240	SZ10D4	240	0.93	1800	8500	0.25	5.0	182.4	3.8
Z1250	SZ10D5	250	0.9	2000	9000	0.25	5.0	190	3.6
Z1270	SZ10D7	270	0.82	2100	9000	0.25	5.0	205	3.3
Z1300	SZ10E0	300	0.75	2300	9500	0.25	5.0	228	3.0

Notes :

- (1) For V_Z ≤ 200 V; V_F = 1.2 V_{max}. @ I_F = 200 mA and for V_Z > 200 V; V_F = 2 V_{max}. @ I_F = 200 mA.
- (2) The type numbers listed have a standard tolerance on the nominal zener voltage of ± 10%. A standard tolerance of ± 5% is also available by adding suffix "A" to the standard type for Axial Lead or by replacing the fourth digit of standard type from "0" to "5" for SMD.
- (3) "SZ" for SMD parts will be omitted on marking of the diode
- (4) Use suffix "C" for tolerance ± 2% (Axial Lead)



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No. ⁽²⁾	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current	
	$V_Z @ I_{ZT}^{(1)}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$	
Axial Lead	(V)	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)

Z1T-100B Series, 1 W, Case Type : DO-41



Z1T-100B	100	0.95	750	5000	0.1	0.1	86
Z1T-110B	110	0.95	750	5000	0.1	0.1	94
Z1T-115B	115	0.95	750	5000	0.1	0.1	98
Z1T-120B	120	0.95	850	5000	0.1	0.1	103
Z1T-130B	130	0.95	1000	5000	0.1	0.1	111
Z1T-140B	140	0.90	1200	5000	0.1	0.1	120
Z1T-150B	150	0.85	1300	5000	0.1	0.1	128
Z1T-160B	160	0.80	1500	5000	0.1	0.1	137
Z1T-170B	170	0.74	2200	5000	0.1	0.1	145
Z1T-180B	180	0.68	2200	5000	0.1	0.1	154
Z1T-190B	190	0.66	2500	5000	0.1	0.1	162
Z1T-200B	200	0.65	2500	8000	0.1	0.1	171
Z1T-210B	210	0.62	5000	9000	0.1	0.1	180
Z1T-220B	220	0.59	5000	9000	0.1	0.1	188
Z1T-230B	230	0.57	5000	9000	0.1	0.1	197
Z1T-240B	240	0.54	5000	9000	0.1	0.1	205
Z1T-250B	250	0.52	5000	9000	0.1	0.1	214
Z1T-260B	260	0.50	5000	9000	0.1	0.1	222
Z1T-270B	270	0.48	5000	9000	0.1	0.1	231
Z1T-280B	280	0.46	5000	9000	0.1	0.1	239
Z1T-290B	290	0.45	5000	9000	0.1	0.1	248
Z1T-300B	300	0.43	5000	9000	0.1	0.1	257
Z1T-310B	310	0.42	5000	9500	0.1	0.1	265
Z1T-320B	320	0.41	5000	9500	0.1	0.1	274
Z1T-330B	330	0.39	5000	9500	0.1	0.1	282

Notes :

(1) $V_F = 1.2 V_{max.} @ I_F = 200 \text{ mA}$

(2) Suffix " B " indicates $\pm 5.0\%$ tolerance, " A " indicates $\pm 10\%$ tolerance.



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	$V_Z^{(1)}$ @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	I_{RM}
Axial Lead	(V)	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)	(mA)	(mApk)

MZ4728 Series, 1.0 W, Case Type : M1A



MZ4728	3.3	76.0	10	400	1.0	100	1.0	276	1380
MZ4729	3.6	69.0	10	400	1.0	100	1.0	252	1260
MZ4730	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
MZ4731	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
MZ4732	4.7	53.0	8.0	500	1.0	10	1.0	193	970
MZ4733	5.1	49.0	7.0	550	1.0	10	1.0	178	890
MZ4734	5.6	45.0	5.0	600	1.0	10	2.0	162	810
MZ4735	6.2	41.0	2.0	700	1.0	10	3.0	146	730
MZ4736	6.8	37.0	3.5	700	1.0	10	4.0	133	660
MZ4737	7.5	34.0	4.0	700	0.5	10	5.0	121	605
MZ4738	8.2	31.0	4.5	700	0.5	10	6.0	110	550
MZ4739	9.1	28.0	5.0	700	0.5	10	7.0	100	500
MZ4740	10	25.0	7.0	700	0.25	10	7.6	91	454
MZ4741	11	23.0	8.0	700	0.25	5.0	8.4	83	414
MZ4742	12	21.0	9.0	700	0.25	5.0	9.1	76	380
MZ4743	13	19.0	10	700	0.25	5.0	9.9	69	344
MZ4744	15	17.0	14	700	0.25	5.0	11.4	61	305
MZ4745	16	15.5	16	700	0.25	5.0	12.2	57	285
MZ4746	18	14.0	20	750	0.25	5.0	13.7	50	250
MZ4747	20	12.5	22	750	0.25	5.0	15.2	45	225
MZ4748	22	11.5	23	750	0.25	5.0	16.7	41	205
MZ4749	24	10.5	25	750	0.25	5.0	18.2	38	190
MZ4750	27	9.5	35	750	0.25	5.0	20.6	34	170
MZ4751	30	8.5	40	1000	0.25	5.0	22.8	30	150
MZ4752	33	7.5	45	1000	0.25	5.0	25.1	27	135
MZ4753	36	7.0	50	1000	0.25	5.0	27.4	25	125
MZ4754	39	6.5	60	1000	0.25	5.0	29.7	23	115
MZ4755	43	6.0	70	1500	0.25	5.0	32.7	22	110
MZ4756	47	5.5	80	1500	0.25	5.0	35.8	19	95
MZ4757	51	5.0	95	1500	0.25	5.0	38.8	18	90
MZ4758	56	4.5	110	2000	0.25	5.0	42.6	16	80
MZ4759	62	4.0	125	2000	0.25	5.0	47.1	14	70
MZ4760	68	3.7	150	2000	0.25	5.0	51.7	13	65
MZ4761	75	3.3	175	2000	0.25	5.0	56.0	12	60
MZ4762	82	3.0	200	3000	0.25	5.0	62.2	11	55
MZ4763	91	2.8	250	3000	0.25	5.0	69.2	10	50
MZ4764	100	2.5	350	3000	0.25	5.0	76.0	9.0	45
MZ1110	110	2.3	450	4000	0.25	5.0	83.6	8.6	40
MZ1120	120	2.0	550	4500	0.25	5.0	91.2	7.8	37
MZ1130	130	1.9	700	5000	0.25	5.0	98.8	7.0	34
MZ1150	150	1.7	1000	6000	0.25	5.0	114.0	6.4	30
MZ1160	160	1.6	1100	6500	0.25	5.0	121.6	5.8	28
MZ1180	180	1.4	1200	7000	0.25	5.0	136.8	5.2	25
MZ1200	200	1.2	1900	9990	0.25	5.0	152.0	4.7	22

Note : (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 10\%$.

Suffix "A" indicates $\pm 5\%$ tolerance, suffix "C" indicates $\pm 2\%$ tolerance

Zener Diodes 1.0 W

Type No.		Nominal Zener Voltage ⁽³⁾		Maximum Zener Impedance ⁽¹⁾			Maximum Reverse Leakage Current		Maximum Regulator Current	Maximum Surge Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{VT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM} ⁽²⁾	I _{RM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mA)

1N4728AG/ZM4728A Series, Case Type : DO-41G / MELF



1N4728AG	ZM4728A	3.3	76.0	10	400	1.0	100	1.0	276	1380
1N4729AG	ZM4729A	3.6	69.0	10	400	1.0	100	1.0	252	1260
1N4730AG	ZM4730A	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
1N4731AG	ZM4731A	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
1N4732AG	ZM4732A	4.7	53.0	8.0	500	1.0	10	1.0	193	970
1N4733AG	ZM4733A	5.1	49.0	7.0	550	1.0	10	1.0	178	890
1N4734AG	ZM4734A	5.6	45.0	5.0	600	1.0	10	2.0	162	810
1N4735AG	ZM4735A	6.2	41	2.0	700	1.0	10	3.0	146	730
1N4736AG	ZM4736A	6.8	37.0	3.5	700	1.0	10	4.0	133	660
1N4737AG	ZM4737A	7.5	34.0	4.0	700	0.5	10	5.0	121	605
1N4738AG	ZM4738A	8.2	31	4.5	700	0.5	10	6.0	110	550
1N4739AG	ZM4739A	9.1	28.0	5.0	700	0.5	10	7.0	100	500
1N4740AG	ZM4740A	10	25.0	7.0	700	0.25	10	7.6	91	454
1N4741AG	ZM4741A	11	23.0	8.0	700	0.25	5.0	8.4	83	414
1N4742AG	ZM4742A	12	21	9.0	700	0.25	5.0	9.1	76	380
1N4743AG	ZM4743A	13	19.0	10	700	0.25	5.0	9.9	69	344
1N4744AG	ZM4744A	15	17.0	14	700	0.25	5.0	11.4	61	305
1N4745AG	ZM4745A	16	15.5	16	700	0.25	5.0	12.2	57	285
1N4746AG	ZM4746A	18	14.0	20	750	0.25	5.0	13.7	50	250
1N4747AG	ZM4747A	20	12.5	22	750	0.25	5.0	15.2	45	225
1N4748AG	ZM4748A	22	11.5	23	750	0.25	5.0	16.7	41	205
1N4749AG	ZM4749A	24	10.5	25	750	0.25	5.0	18.2	38	190
1N4750AG	ZM4750A	27	9.5	35	750	0.25	5.0	20.6	34	170
1N4751AG	ZM4751A	30	8.5	40	1000	0.25	5.0	22.8	30	150
1N4752AG	ZM4752A	33	7.5	45	1000	0.25	5.0	25.1	27	135
1N4753AG	ZM4753A	36	7.0	50	1000	0.25	5.0	27.4	25	125
1N4754AG	ZM4754A	39	6.5	60	1000	0.25	5.0	29.7	23	115
1N4755AG	ZM4755A	43	6.0	70	1500	0.25	5.0	32.7	22	110
1N4756AG	ZM4756A	47	5.5	80	1500	0.25	5.0	35.8	19	95
1N4757AG	ZM4757A	51	5.0	95	1500	0.25	5.0	38.8	18	90
1N4758AG	ZM4758A	56	4.5	110	2000	0.25	5.0	42.6	16	80
1N4759AG	ZM4759A	62	4.0	125	2000	0.25	5.0	47.1	14	70
1N4760AG	ZM4760A	68	3.7	150	2000	0.25	5.0	51.7	13	65
1N4761AG	ZM4761A	75	3.3	175	2000	0.25	5.0	56.0	12	60
1N4762AG	ZM4762A	82	3.0	200	3000	0.25	5.0	62.2	11	55
1N4763AG	ZM4763A	91	2.8	250	3000	0.25	5.0	69.2	10	50
1N4764AG	ZM4764A	100	2.5	350	3000	0.25	5.0	76.0	9.0	45

Notes:

- (1) The Zener impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to ensure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) Valid provided that electrodes are at a distance of 10mm from case and kept at ambient temperature
- (3) Measured under thermal equilibrium and DC test conditions
- (4) Standard Zener voltage tolerance is ± 5% tolerance. Other Zener voltages and tolerances are available upon request.
- (5) V_F = 1.2 Vmax. @ I_F = 200 mA



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}	$I_{RM}^{(2)}$
	(V)	(mA)		(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)

1SMA4728A Series, 1 W, Case Type : SMA



1SMA4728A	3.3	76.0	10	400	1.0	100	1.0	276	1380
1SMA4729A	3.6	69.0	10	400	1.0	100	1.0	252	1260
1SMA4730A	3.9	58.0	9.0	400	1.0	50	1.0	234	1190
1SMA4731A	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
1SMA4732A	4.7	53.0	8.0	500	1.0	10	1.0	193	970
1SMA4733A	5.1	49.0	7.0	550	1.0	10	1.0	178	890
1SMA4734A	5.6	45.0	5.0	600	1.0	10	2.0	162	810
1SMA4735A	6.2	41.0	2.0	700	1.0	10	3.0	146	730
1SMA4736A	6.8	37.0	3.5	700	1.0	10	4.0	133	660
1SMA4737A	7.5	34.0	4.0	700	0.5	10	5.0	121	605
1SMA4738A	8.2	31.0	4.5	700	0.5	10	6.0	110	550
1SMA4739A	9.1	28.0	5.0	700	0.5	10	7.0	100	500
1SMA4740A	10	25.0	7.0	700	0.25	10	7.6	91	454
1SMA4741A	11	23.0	8.0	700	0.25	5.0	8.4	83	414
1SMA4742A	12	21.0	9.0	700	0.25	5.0	9.1	76	380
1SMA4743A	13	19.0	10	700	0.25	5.0	9.9	69	344
1SMA4744A	15	17.0	14	700	0.25	5.0	11.4	61	305
1SMA4745A	16	15.5	16	700	0.25	5.0	12.2	57	285
1SMA4746A	18	14.0	20	750	0.25	5.0	13.7	50	250
1SMA4747A	20	12.5	22	750	0.25	5.0	15.2	45	225
1SMA4748A	22	11.5	23	750	0.25	5.0	16.7	41	205
1SMA4749A	24	10.5	25	750	0.25	5.0	18.2	38	190
1SMA4750A	27	9.5	35	750	0.25	5.0	20.6	34	170
1SMA4751A	30	8.5	40	1000	0.25	5.0	22.8	30	150
1SMA4752A	33	7.5	45	1000	0.25	5.0	25.1	27	135
1SMA4753A	36	7.0	50	1000	0.25	5.0	27.4	25	125
1SMA4754A	39	6.5	60	1000	0.25	5.0	29.7	23	115
1SMA4755A	43	6.0	70	1500	0.25	5.0	32.7	22	110
1SMA4756A	47	5.5	80	1500	0.25	5.0	35.8	19	95
1SMA4757A	51	5.0	95	1500	0.25	5.0	38.8	18	90
1SMA4758A	56	4.5	110	2000	0.25	5.0	42.6	16	80
1SMA4759A	62	4.0	125	2000	0.25	5.0	47.1	14	70
1SMA4760A	68	3.7	150	2000	0.25	5.0	51.7	13	65
1SMA4761A	75	3.3	175	2000	0.25	5.0	56.0	12	60
1SMA4762A	82	3.0	200	3000	0.25	5.0	62.2	11	55
1SMA4763A	91	2.8	250	3000	0.25	5.0	69.2	10	50
1SMA4764A	100	2.5	350	3000	0.25	5.0	76.0	9.0	45

Notes :

- (1) The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- (2) Surge current is a non-repetitive 8.3ms square pulse width wave or equivalent sine-wave superimposed on I_{ZT} as per JEDEC method



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Zener Voltage			Test Current	Maximum Zener Impedance		Maximum Reverse Current		Typical Temperature Coefficient	
	$V_Z (V)^{(1)}$			I_{ZT}	Z_Z	@ I_Z	I_R	@ V_R	γ_Z	I_Z
	Min.	Typ.	Max.	(mA)	(Ω)	(mA)	(μA)	(V)	(mV/°C)	(mA)

PTZ3.6B Series, 1 W, Case Type : SMA



PTZ3.6B	3.6	3.813	4.00	40	15	40	60	1.0	-2.8	40
PTZ3.9B	3.9	4.136	4.40	40	15	40	40	1.0	-2.4	40
PTZ4.3B	4.3	4.572	4.80	40	15	40	20	1.0	-2.1	40
PTZ4.7B	4.7	4.924	5.20	40	10	40	20	1.0	-1.7	40
PTZ5.1B	5.1	5.368	5.70	40	8	40	20	1.5	-0.6	40
PTZ5.6B	5.6	5.856	6.30	40	8	40	20	2.5	1.4	40
PTZ6.2B	6.2	6.509	7.00	40	6	40	20	3.0	2.5	40
PTZ6.8B	6.8	7.280	7.70	40	6	40	20	3.5	3.2	40
PTZ7.5B	7.5	7.889	8.40	40	4	40	20	4.0	4.2	40
PTZ8.2B	8.2	8.655	9.30	40	4	40	20	5.0	5.0	40
PTZ9.1B	9.1	9.747	10.2	40	6	40	20	6.0	5.9	40
PTZ10B	10	10.31	11.2	40	6	40	10	7.0	6.9	40
PTZ11B	11	11.51	12.3	20	8	20	10	8.0	7.9	20
PTZ12B	12	12.50	13.5	20	8	20	10	9.0	8.7	20
PTZ13B	13.3	13.82	15.0	20	10	20	10	10.0	10.1	20
PTZ15B	14.7	15.35	16.5	20	10	20	10	11.0	11.8	20
PTZ16B	16.2	16.86	18.3	20	12	20	10	12.0	13.3	20
PTZ18B	18	19.00	20.3	20	12	20	10	13.0	15.0	20
PTZ20B	20	20.82	22.4	20	14	20	10	15.0	17.4	20
PTZ22B	22	23.85	24.5	10	14	10	10	17.0	19.4	10
PTZ24B	24	25.31	27.6	10	16	10	10	19.0	21.6	10
PTZ27B	27	28.70	30.8	10	16	10	10	21.0	24.6	10
PTZ30B	30	31.57	34.0	10	18	10	10	23.0	27.5	10
PTZ33B	33	34.95	37.0	10	18	10	10	25.0	30.8	10
PTZ36B	36	39.24	40.0	10	20	10	10	27.0	37.0	10

Note :

(1) The Zener Voltage V_Z is measured 40 ms after power is supplied



Zener Diodes 1.0 W

Type No.	Suffix ⁽³⁾	Zener Voltage $V_Z^{(1)}$			Dynamic Impedance $Z_Z^{(2)}$		Reverse Current I_R	
		Min.	Max.	I_Z	Max.	I_Z	Max.	V_R
		V	V	mA	Ω	mA	(μ A)	(V)

RD2.0F Series, 1 W, Case Type : DO-41 Glass



RD2.0F	B	1.88	2.25	40	25	40	200	0.5
	B1	1.88	2.12					
	B2	2.01	2.25					
RD2.2F	B	2.11	2.45	40	20	40	200	0.7
	B1	2.11	2.34					
	B2	2.21	2.45					
RD2.4F	B	2.31	2.65	40	15	40	200	1.0
	B1	2.31	2.55					
	B2	2.41	2.65					
RD2.7F	B	2.52	2.93	40	15	40	150	1.0
	B1	2.52	2.78					
	B2	2.68	2.93					
RD3.0F	B	2.83	3.22	40	15	40	100	1.0
	B1	2.83	3.07					
	B2	2.97	3.22					
RD3.3F	B	3.13	3.51	40	15	40	80	1.0
	B1	3.13	3.37					
	B2	3.27	3.51					
RD3.6F	B	3.43	3.83	40	15	40	60	1.0
	B1	3.43	3.68					
	B2	3.58	3.83					
RD3.9F	B	3.73	4.15	40	15	40	40	1.0
	B1	3.73	4.00					
	B2	3.88	4.15					
RD4.3F	B	4.03	4.55	40	15	40	20	1.0
	B1	4.03	4.28					
	B2	4.15	4.41					
	B3	4.28	4.55					
RD4.7F	B	4.41	4.91	40	10	40	20	1.0
	B1	4.41	4.65					
	B2	4.53	4.78					
	B3	4.66	4.91					
RD5.1F	B	4.79	5.38	40	8	40	20	1.0
	B1	4.79	5.05					
	B2	4.95	5.22					
	B3	5.10	5.38					
RD5.6F	B	5.28	5.95	40	8	40	20	1.5
	B1	5.28	5.56					
	B2	5.46	5.75					
	B3	5.65	5.95					
RD6.2F	B	5.76	6.52	40	6	40	20	3.0
	B1	5.76	6.14					
	B2	5.98	6.33					
	B3	6.17	6.52					



Zener Diodes 1.0 W

Type No.	Suffix ⁽³⁾	Zener Voltage $V_Z^{(1)}$			Dynamic Impedance $Z_Z^{(2)}$		Reverse Current I_R	
		Min.	Max.	I_Z	Max.	I_Z	Max.	V_R
		V	V	mA	Ω	mA	(μ A)	(V)

RD2.0F Series, 1 W, Case Type : DO-41 Glass



RD6.8F	B	6.35	7.10	40	6	40	20	3.5
	B1	6.35	6.71					
	B2	6.55	6.90					
	B3	6.74	7.10					
RD7.5F	B	6.93	7.80	40	4	40	20	4.0
	B1	6.93	7.33					
	B2	7.17	7.55					
	B3	7.39	7.80					
RD8.2F	B	7.58	8.54	40	4	40	20	5.0
	B1	7.58	8.03					
	B2	7.87	8.28					
	B3	8.12	8.54					
RD9.1F	B	8.34	9.38	40	6	40	20	6.0
	B1	8.34	8.80					
	B2	8.64	9.08					
	B3	8.91	9.38					
RD10F	B	9.16	10.40	40	6	40	10	7.0
	B1	9.16	9.67					
	B2	9.50	9.99					
	B3	9.83	10.40					
RD11F	B	10.22	11.43	20	8	20	10	8.0
	B1	10.22	10.75					
	B2	10.54	11.19					
	B3	10.87	11.43					
RD12F	B	11.19	12.41	20	8	20	10	8.0
	B1	11.19	11.77					
	B2	11.50	12.09					
	B3	11.80	12.41					
RD13F	B	12.19	13.83	20	10	20	10	10
	B1	12.19	12.85					
	B2	12.63	13.30					
	B3	13.11	13.83					
RD15F	B	13.55	15.26	20	10	20	10	11
	B1	13.55	14.28					
	B2	14.05	14.77					
	B3	14.52	15.26					
RD16F	B	14.98	16.71	20	12	20	10	12
	B1	14.98	15.75					
	B2	15.44	16.23					
	B3	15.89	16.71					
RD18F	B	16.37	18.55	20	12	20	10	13
	B1	16.37	17.27					
	B2	17.03	17.91					
	B3	17.64	18.55					



Zener Diodes 1.0 W

Type No.	Suffix ⁽³⁾	Zener Voltage $V_Z^{(1)}$			Dynamic Impedance $Z_Z^{(2)}$		Reverse Current I_R	
		Min.	Max.	I_Z	Max.	I_Z	Max.	V_R
		V	V	mA	Ω	mA	(μ A)	(V)

RD2.0F Series, 1 W, Case Type : DO-41 Glass



RD20F	B	18.26	20.84	20	14	20	10	15
	B1	18.26	19.21					
	B2	18.93	19.91					
	B3	19.59	20.84					
RD22F	B	20.45	22.86	10	14	10	10	17
	B1	20.45	21.51					
	B2	21.10	22.18					
	B3	21.75	22.86					
RD24F	B	22.44	25.14	10	16	10	10	19
	B1	22.44	23.59					
	B2	23.17	24.36					
	B3	23.90	25.14					
RD27F	B	24.63	28.43	10	16	10	10	21
	B1	24.63	26.10					
	B2	25.70	27.12					
	B3	26.72	28.43					
RD30F	B	27.43	31.26	10	18	10	10	23
	B1	27.43	29.09					
	B2	28.64	30.10					
	B3	29.57	31.26					
RD33F	B	30.35	34.15	10	18	10	10	25
	B1	30.35	31.97					
	B2	31.49	33.06					
	B3	32.39	34.15					
RD36F	B	33.24	37.01	10	20	10	10	27
	B1	33.24	34.94					
	B2	34.26	36.01					
	B3	35.19	37.01					
RD39F	B	36.11	40.80	10	20	10	10	30
	B1	36.11	38.00					
	B2	37.14	39.04					
	B3	38.13	40.80					
RD43F	B	40.00	45.00	10	50	10	5	33
RD47F	B	44.00	49.00	10	50	10	5	36
RD51F	B	48.00	54.00	10	50	10	5	39
RD56F	B	53.00	60.00	10	50	10	5	43
RD62F	B	58.00	66.00	10	50	10	5	47
RD68F	B	64.00	72.00	10	70	10	5	52
RD75F	B	70.00	79.00	10	90	10	5	57
RD82F	B	77.00	87.00	10	90	10	5	63

Notes:

- (1) Test with pulse (40 ms)
- (2) Z_Z is measured at I_Z given an very small AC Current Signal
- (3) When placing an order for an RD2.0F type, please add suffix e.g. RD2.0FB, RD2.0FB1 RD82FB4
The B grade is a wide specification, covering full voltage range for suffix "B1" to "B3"



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Zener Voltage ⁽²⁾ V _Z @ I _{ZT}				Maximum Zener Impedance			Maximum Reverse Leakage Current, I _R		Maximum DC Zener Current ⁽¹⁾
	Nom	Min	Max	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{Zk} @ I _{ZK}	I _{ZK}	I _R @ V _R		
	(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	I _{ZM} (mA)

SMAZ5V1 Series, 1 W, Case Type : SMA



SMAZ5V1	5.1	4.84	5.40	100	5.0	500	1.0	2.5	1.0	196
SMAZ5V6	5.6	5.32	5.88	100	2.0	250	2.0	5.0	2.0	179
SMAZ6V2	6.2	5.89	6.51	100	2.0	200	2.0	5.0	3.0	161
SMAZ6V8	6.8	6.46	7.14	100	2.0	200	1.0	5.0	4.0	147
SMAZ7V5	7.5	7.13	7.88	100	2.0	450	1.0	5.0	5.0	133
SMAZ8V2	8.2	7.79	8.61	100	2.0	200	1.0	5.0	6.0	122
SMAZ9V1	9.1	8.65	9.56	50	4.0	200	1.0	5.0	7.0	110
SMAZ10	10.0	9.50	10.50	50	4.0	200	1.0	1.0	7.6	100
SMAZ12	12.0	11.40	12.60	50	7.0	150	1.0	1.0	9.1	83
SMAZ15	15.0	14.25	15.75	50	10	150	1.0	1.0	11.4	67
SMAZ16	16.0	15.20	16.80	25	15	150	1.0	0.5	12.2	63
SMAZ18	18.0	17.10	18.90	25	15	150	1.0	0.5	13.7	56
SMAZ20	20.0	19.00	21.00	25	15	180	1.0	0.5	15.2	50
SMAZ22	22.0	20.90	23.10	25	15	180	1.0	0.5	16.7	45
SMAZ24	24.0	22.80	25.20	25	15	180	1.0	0.5	18.2	42
SMAZ27	27.0	25.65	28.35	25	15	200	1.0	0.5	20.5	37
SMAZ30	30.0	28.50	31.50	25	15	250	1.0	0.5	22.8	33
SMAZ33	33.0	31.35	34.65	25	15	300	1.0	0.5	25.1	30
SMAZ36	36.0	34.20	37.80	10	40	350	1.0	0.5	27.4	28
SMAZ39	39.0	37.05	40.95	10	40	450	1.0	0.5	29.6	26

Notes :

- (1) PCB mounted on 1" x 0.85" x 0.062" copper area pads
- (2) Short duration test pulse used to minimize self-heating effect
- (3) "SMA" will be omitted in marking on the diode.



Zener Diodes 1.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	$V_Z^{(1)}$ @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	$I_{RM}^{(2)}$
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mA _{pk})

SML4728 Series, 1 W, Case Type : SMA



SML4728	3.3	76.0	10	400	1.0	100	1.0	276	1380
SML4729	3.6	69.0	10	400	1.0	100	1.0	252	1260
SML4730	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
SML4731	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
SML4732	4.7	53.0	8.0	500	1.0	10	1.0	193	970
SML4733	5.1	49.0	7.0	550	1.0	10	1.0	178	890
SML4734	5.6	45.0	5.0	600	1.0	10	2.0	162	810
SML4735	6.2	41.0	2.0	700	1.0	10	3.0	146	730
SML4736	6.8	37.0	3.5	700	1.0	10	4.0	133	660
SML4737	7.5	34.0	4.0	700	0.5	10	5.0	121	605
SML4738	8.2	31.0	4.5	700	0.5	10	6.0	110	550
SML4739	9.1	28.0	5.0	700	0.5	10	7.0	100	500
SML4740	10	25.0	7.0	700	0.25	10	7.6	91	454
SML4741	11	23.0	8.0	700	0.25	5.0	8.4	83	414
SML4742	12	21.0	9.0	700	0.25	5.0	9.1	76	380
SML4743	13	19.0	10	700	0.25	5.0	9.9	69	344
SML4744	15	17.0	14	700	0.25	5.0	11.4	61	305
SML4745	16	15.5	16	700	0.25	5.0	12.2	57	285
SML4746	18	14.0	20	750	0.25	5.0	13.7	50	250
SML4747	20	12.5	22	750	0.25	5.0	15.2	45	225
SML4748	22	11.5	23	750	0.25	5.0	16.7	41	205
SML4749	24	10.5	25	750	0.25	5.0	18.2	38	190
SML4750	27	9.5	35	750	0.25	5.0	20.6	34	170
SML4751	30	8.5	40	1000	0.25	5.0	22.8	30	150
SML4752	33	7.5	45	1000	0.25	5.0	25.1	27	135
SML4753	36	7.0	50	1000	0.25	5.0	27.4	25	125
SML4754	39	6.5	60	1000	0.25	5.0	29.7	23	115
SML4755	43	6.0	70	1500	0.25	5.0	32.7	22	110
SML4756	47	5.5	80	1500	0.25	5.0	35.8	19	95
SML4757	51	5.0	95	1500	0.25	5.0	38.8	18	90
SML4758	56	4.5	110	2000	0.25	5.0	42.6	16	80
SML4759	62	4.0	125	2000	0.25	5.0	47.1	14	70
SML4760	68	3.7	150	2000	0.25	5.0	51.7	13	65
SML4761	75	3.3	175	2000	0.25	5.0	56.0	12	60
SML4762	82	3.0	200	3000	0.25	5.0	62.2	11	55
SML4763	91	2.8	250	3000	0.25	5.0	69.2	10	50
SML4764	100	2.5	350	3000	0.25	5.0	76.0	9.0	45

Notes :

- (1) Standard voltage tolerance is 10%, add suffix "A" for $\pm 5\%$ tolerance
- (2) Surge current is a non-repetitive 8.3ms square pulse width wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method
- (3) " SML " will be omitted on marking of the diode



Zener Diodes 1.0 W

Type No.	Zener Voltage ⁽¹⁾		Test Current	Dynamic Resistance at I _{ZT} f = 1kHz	Reverse Voltage at I _R = 0.5 μA	Admissible Zener current ⁽²⁾	Temp. Coeff. of Zener Voltage at I _{ZT}	
	V _Z @ I _{ZT}						α _{VZ} (10 ⁻⁴ /°C)	
	Min	Max	I _{ZT}	rzj	V _R	I _Z		
	(V)	(V)	(mA)	(Ω)	(V)	(mA)	Min.	Max.

ZMU Series, 1 W, Case Type : MELF



ZMU100	88	110	5	140 (<300)	>75	7	9	13
ZMU120	107	134	5	170 (<330)	>90	6	9	13
ZMU150	130	165	5	200 (<360)	>112	5	9	13
ZMU180	160	200	5	220 (<380)	>134	4	9	13

ZMY Series, 1 W, Case Type : MELF



ZMY3.9	3.7	4.1	100	4(<7)	-	203	-7	2
ZMY4.3	4.0	4.6	100	4(<7)	-	182	-7	3
ZMY4.7	4.4	5.0	100	4(<7)	-	165	-7	4
ZMY5.1	4.8	5.4	100	2(<5)	>0.7	150	-6	5
ZMY5.6	5.2	6.0	100	1(<2)	>1.5	135	-3	5
ZMY6.2	5.8	6.6	100	1(<2)	>2.0	128	-1	6
ZMY6.8	6.4	7.2	100	1(<2)	>3.0	110	0	7
ZMY7.5	7.0	7.9	100	1(<2)	>5.0	100	0	7
ZMY8.2	7.7	8.7	100	1(<2)	>6.0	89	3	8
ZMY9.1	8.5	9.6	50	2(<4)	>7.0	82	3	8
ZMY10	9.4	10.6	50	2(<4)	>7.5	74	5	9
ZMY11	10.4	11.6	50	3(<7)	>8.5	66	5	10
ZMY12	11.4	12.7	50	3(<7)	>9.0	60	5	10
ZMY13	12.4	14.1	50	4(<9)	>10	55	5	10
ZMY15	13.8	15.8	50	4(<9)	>11	49	5	10
ZMY16	15.3	17.1	25	5(<10)	>12	44	7	11
ZMY18	16.8	19.1	25	5(<11)	>14	40	7	11
ZMY20	18.8	21.2	25	6(<12)	>15	36	7	11
ZMY22	20.8	23.3	25	7(<13)	>17	34	7	11
ZMY24	22.8	25.6	25	8(<14)	>18	29	7	12
ZMY27	25.1	28.9	25	9(<15)	>20	27	7	12
ZMY30	28	32	25	10(<20)	>22.5	25	7	12
ZMY33	31	35	25	11(<20)	>25	22	7	12
ZMY36	34	38	10	25(<60)	>27	20	7	12
ZMY39	37	41	10	30(<60)	>29	18	8	12
ZMY43	40	46	10	35(<80)	>32	17	8	13
ZMY47	44	50	10	40(<80)	>35	15	8	13
ZMY51	48	54	10	45(<100)	>38	14	8	13
ZMY56	52	60	10	50(<100)	>42	13	8	13
ZMY62	58	66	10	60(<130)	>47	11	8	13
ZMY68	64	72	10	65(<130)	>51	10	8	13
ZMY75	70	79	10	70(<160)	>56	9.0	8	13
ZMY82	77	88	10	80(<160)	>61	8.0	8	13
ZMY91	85	96	5	120(<250)	>68	7.5	9	13
ZMY100	94	106	5	130(<250)	>75	7.0	9	13

Notes:

- (1) Tested with pulse $t_p = 5\text{ms}$
- (2) Valid provided that electrodes are kept at ambient temperature
- (3) For ZMY Series standard zener voltage tolerance is $\pm 5\%$. Add suffix "C" for $\pm 2\%$ tolerance.



Zener Diodes 1.3 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		Vz @ IzT	IzT	ZzT @ IzT	Zzk @ Izk	Izk	IR @ VR		IzM
Axial Lead	SMD	(V)	(mA)	(W)	(W)	(mA)	(mA)	(V)	(mA)

BZX85/SZ25 Series, 1.3 W, Case Type : DO-41/SMA

BZX85C2V4	SZ252D	2.4	80	20	400	1.0	150	1.0	410
BZX85C2V7	SZ252H	2.7	80	20	400	1.0	150	1.0	370
BZX85C3V0	SZ253A	3.0	80	20	400	1.0	100	1.0	340
BZX85C3V3	SZ253D	3.3	80	20	400	1.0	40	1.0	320
BZX85C3V6	SZ253G	3.6	70	20	500	1.0	20	1.0	290
BZX85C3V9	SZ253J	3.9	60	15	500	1.0	10	1.0	280
BZX85C4V3	SZ254D	4.3	50	13	500	1.0	3.0	1.0	250
BZX85C4V7	SZ254H	4.7	45	13	500	1.0	3.0	1.0	215
BZX85C5V1	SZ255B	5.1	45	10	500	1.0	1.0	1.5	200
BZX85C5V6	SZ255G	5.6	45	7.0	400	1.0	1.0	2.0	190
BZX85C6V2	SZ256C	6.2	35	4.0	300	1.0	1.0	3.0	170
BZX85C6V8	SZ256I	6.8	35	3.5	300	1.0	50	4.0	155
BZX85C7V5	SZ257F	7.5	35	3.0	200	0.5	50	4.5	140
BZX85C8V2	SZ258C	8.2	25	5.0	200	0.5	50	6.2	130
BZX85C9V1	SZ259B	9.1	25	5.0	200	0.5	50	6.8	120
BZX85C10	SZ2510	10	25	7.0	200	0.5	0.5	7.5	105
BZX85C11	SZ2511	11	20	8.0	300	0.5	0.5	8.2	97
BZX85C12	SZ2512	12	20	9.0	350	0.5	0.5	9.1	88
BZX85C13	SZ2513	13	20	10	400	0.5	0.5	10	79
BZX85C15	SZ2515	15	15	15	500	0.5	0.5	11	71
BZX85C16	SZ2516	16	15	15	500	0.5	0.5	12	66
BZX85C18	SZ2518	18	15	20	500	0.5	0.5	13	62
BZX85C20	SZ2520	20	10	24	600	0.5	0.5	15	56
BZX85C22	SZ2522	22	10	25	600	0.5	0.5	16	52
BZX85C24	SZ2524	24	10	25	600	0.5	0.5	18	47
BZX85C27	SZ2527	27	8.0	30	750	0.25	0.5	20	41
BZX85C30	SZ2530	30	8.0	30	1000	0.25	0.5	22	36
BZX85C33	SZ2533	33	8.0	35	1000	0.25	0.5	24	33
BZX85C36	SZ2536	36	8.0	40	1000	0.25	0.5	27	30
BZX85C39	SZ2539	39	6.0	50	1000	0.25	0.5	30	28
BZX85C43	SZ2543	43	6.0	50	1000	0.25	0.5	33	26
BZX85C47	SZ2547	47	4.0	90	1500	0.25	0.5	36	23
BZX85C51	SZ2551	51	4.0	115	1500	0.25	0.5	39	21
BZX85C56	SZ2556	56	4.0	120	2000	0.25	0.5	43	19
BZX85C62	SZ2562	62	4.0	125	2000	0.25	0.5	47	16
BZX85C68	SZ2568	68	4.0	130	2000	0.25	0.5	51	15
BZX85C75	SZ2575	75	4.0	135	2000	0.25	0.5	56	14
BZX85C82	SZ2582	82	2.7	200	3000	0.25	0.5	62	12
BZX85C91	SZ2591	91	2.7	250	3000	0.25	0.5	68	10
BZX85C100	SZ25B0	100	2.7	350	3000	0.25	0.5	75	9.4
BZX85C110	SZ25B1	110	2.7	450	4000	0.25	0.5	82	8.6
BZX85C120	SZ25B2	120	2.0	550	4500	0.25	0.5	91	7.8
BZX85C130	SZ25B3	130	2.0	700	5000	0.25	0.5	100	7.0
BZX85C150	SZ25B5	150	2.0	1000	6000	0.25	0.5	110	6.4
BZX85C160	SZ25B6	160	1.5	1100	6500	0.25	0.5	120	5.8
BZX85C180	SZ25B8	180	1.5	1200	7000	0.25	0.5	130	5.2
BZX85C200	SZ25D0	200	1.5	1500	8000	0.25	0.5	150	4.7

Notes:

- (1) $V_F = 1.2 V_{max}$. @ $I_F = 200 \text{ mA}$.
- (2) The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$. Add suffix "B" for $\pm 2\%$ tolerance for axial lead.
- (3) "BZX" for Axial Lead / "SZ" for SMD will be omitted on marking of the diode.



Zener Diodes 1.3 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}
Axial Lead	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

MZ85C Series, 1.3 W, Case Type : M1A



MZ85C3V0	3.0	80	20	400	1.0	100	1.0	340
MZ85C3V3	3.3	80	20	400	1.0	40	1.0	320
MZ85C3V6	3.6	70	20	500	1.0	20	1.0	290
MZ85C3V9	3.9	60	15	500	1.0	10	1.0	280
MZ85C4V3	4.3	50	13	500	1.0	3.0	1.0	250
MZ85C4V7	4.7	45	13	500	1.0	3.0	1.0	215
MZ85C5V1	5.1	45	10	500	1.0	1.0	1.5	200
MZ85C5V6	5.6	45	7.0	400	1.0	1.0	2.0	190
MZ85C6V2	6.2	35	4.0	300	1.0	1.0	3.0	170
MZ85C6V8	6.8	35	3.5	300	1.0	50	4.0	155
MZ85C7V5	7.5	35	3.0	200	0.5	50	4.5	140
MZ85C8V2	8.2	25	5.0	200	0.5	50	6.2	130
MZ85C9V1	9.1	25	5.0	200	0.5	50	6.8	120
MZ85C10	10	25	7.0	200	0.5	50	7.5	105
MZ85C11	11	20	8.0	300	0.5	50	8.2	97
MZ85C12	12	20	9.0	350	0.5	0.5	9.1	88
MZ85C13	13	20	10	400	0.5	0.5	10	79
MZ85C15	15	15	15	500	0.5	0.5	11	71
MZ85C16	16	15	15	500	0.5	0.5	12	66
MZ85C18	18	15	20	500	0.5	0.5	13	62
MZ85C19	19	15	20	550	0.5	0.5	14	58
MZ85C20	20	10	24	600	0.5	0.5	15	56
MZ85C22	22	10	25	600	0.5	0.5	16	52
MZ85C24	24	10	25	600	0.5	0.5	18	47
MZ85C27	27	8.0	30	750	0.25	0.5	20	41
MZ85C30	30	8.0	30	1000	0.25	0.5	22	36
MZ85C33	33	8.0	35	1000	0.25	0.5	24	33
MZ85C36	36	8.0	40	1000	0.25	0.5	27	30
MZ85C39	39	6.0	50	1000	0.25	0.5	30	28
MZ85C43	43	6.0	50	1000	0.25	0.5	33	26
MZ85C47	47	4.0	90	1500	0.25	0.5	36	23
MZ85C51	51	4.0	115	1500	0.25	0.5	39	21
MZ85C56	56	4.0	120	2000	0.25	0.5	43	19
MZ85C62	62	4.0	125	2000	0.25	0.5	47	16
MZ85C68	68	4.0	130	2000	0.25	0.5	51	15
MZ85C75	75	4.0	135	2000	0.25	0.5	56	14
MZ85C82	82	2.7	200	3000	0.25	0.5	62	12
MZ85C91	91	2.7	250	3000	0.25	0.5	68	10
MZ85C100	100	2.7	350	3000	0.25	0.5	75	9.4
MZ85C110	110	2.7	450	4000	0.25	0.5	82	8.6
MZ85C120	120	2.0	550	4500	0.25	0.5	91	7.8
MZ85C130	130	2.0	700	5000	0.25	0.5	100	7.0
MZ85C150	150	2.0	1000	6000	0.25	0.5	110	6.4
MZ85C160	160	1.5	1100	6500	0.25	0.5	120	5.8
MZ85C180	180	1.5	1200	7000	0.25	0.5	130	5.2
MZ85C200	200	1.5	1900	9990	0.25	0.5	150	4.7

Note :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$.

Zener Diodes 1.3 W

Type No.	Zener Voltage ⁽¹⁾ V _Z @ I _{ZT}		Test Current	Dynamic Resistance at I _{ZT} , f = 1kHz	Reverse Voltage at I _R = 0.5mA	Admissible Zener Current	Temp. coefficient of Zener Voltage	
	Min.	Max.	I _{ZT}		V _R	I _Z ⁽²⁾	$\alpha_{VZ}(10^{-4} / ^\circ\text{C})$	
	(V)	(V)	(mA)	r _{Zj} (Ω)	(V)	(mA)	min.	max.

ZPY Series, 1.3 W, Case Type : DO-41 Glass



ZPY3.9	3.7	4.1	100	4 (< 7)	-	290	-7	+2
ZPY4.3	4.0	4.6	100	4 (< 7)	-	280	-7	+3
ZPY4.7	4.4	5.0	100	2 (< 5)	-	250	-7	+4
ZPY5.1	4.8	6.4	100	1 (< 2)	> 0.7	215	-6	+5
ZPY5.6	5.2	6.0	100	1 (< 2)	> 1.5	200	-3	+5
ZPY6.2	5.8	6.6	100	1 (< 2)	> 2.0	190	-1	+6
ZPY6.8	6.4	7.2	100	1 (< 2)	> 3.0	170	0	+7
ZPY7.5	7.0	7.9	100	1 (< 2)	> 5.0	155	0	+7
ZPY8.2	7.7	8.7	100	1 (< 2)	> 6.0	140	+3	+8
ZPY9.1	8.5	9.6	50	2 (< 4)	> 7.0	130	+3	+8
ZPY10	9.41	10.6	50	2 (< 4)	> 7.5	120	+5	+9
ZPY11	10.4	11.6	50	3 (< 7)	> 8.5	105	+5	+10
ZPY12	11.4	12.7	50	3 (< 7)	> 9.0	97	+5	+10
ZPY13	12.4	14.1	50	4 (< 9)	> 10	88	+5	+10
ZPY15	13.8	15.8	50	4 (< 9)	> 11	79	+5	+10
ZPY16	15.3	17.1	25	5 (< 10)	> 12	71	+7	+11
ZPY18	16.8	19.1	25	5 (< 11)	> 14	66	+7	+11
ZPY20	18.8	21.2	25	6 (< 12)	> 15	62	+7	+11
ZPY22	20.8	23.3	25	7 (< 13)	> 17		+7	+11
ZPY24	22.8	25.6	25	8 (< 14)	> 18	56	+7	+12
ZPY27	25.1	28.9	25	9 (< 15)	> 20	52	+7	+12
ZPY30	28	32	25	10 (< 20)	> 22.5	47	+7	+12
ZPY33	31	35	25	11 (< 20)	> 25	41	+7	+12
ZPY36	34	38	10	25 (< 60)	> 27	36	+7	+12
ZPY39	37	41	10	30 (< 60)	> 29	33	+8	+12
ZPY43	40	46	10	35 (< 80)	> 32	30	+8	+13
ZPY47	44	50	10	40 (< 80)	> 35	28	+8	+13
ZPY51	48	64	10	45 (< 100)	> 38	26	+8	+13
ZPY56	52	60	10	50 (< 100)	> 42	23	+8	+13
ZPY62	58	66	10	60 (< 130)	> 47	21	+8	+13
ZPY68	64	72	10	65 (< 130)	> 51	19	+8	+13
ZPY75	70	79	10	70 (< 160)	> 56	16	+8	+13
ZPY82	77	88	10	80 (< 160)	> 61	15	+8	+13
ZPY91	85	96	5	120 (< 250)	> 68	14	+9	+13
ZPY100	94	106	5	130 (< 250)	> 75	12	+9	+13

Notes:

(1) Tested with pulse tp = 5 ms

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

For devices in glass DO-41 case with higher Zener voltage but same power dissipation see types ZPU100 ... ZPU180



Zener Diodes 1.5 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

MZ5913A Series, 1.5 W, Case Type : M1A



MZ5913A	3.3	113.6	10.0	500	1.0	100	1.0	454
MZ5914A	3.6	104.2	9.0	500	1.0	75	1.0	416
MZ5915A	3.9	96.1	7.5	500	1.0	25	1.0	384
MZ5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348
MZ5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319
MZ5918A	5.1	73.5	4.0	350	1.0	5.0	2.0	294
MZ5919A	5.6	66.9	2.0	250	1.0	5.0	3.0	267
MZ5920A	6.2	60.5	2.0	200	1.0	5.0	4.0	241
MZ5921A	6.8	55.1	2.5	200	1.0	5.0	5.2	220
MZ5922A	7.5	50.0	3.0	400	0.5	5.0	6.0	200
MZ5923A	8.2	45.7	3.5	400	0.5	5.0	6.5	182
MZ5924A	9.1	41.2	4.0	500	0.5	5.0	7.0	164
MZ5925A	10	37.5	4.5	500	0.25	5.0	8.0	150
MZ5926A	11	34.1	5.5	550	0.25	1.0	8.4	136
MZ5927A	12	31.2	6.5	550	0.25	1.0	9.1	125
MZ5928A	13	28.8	7.0	550	0.25	1.0	9.9	115
MZ5929A	15	25.0	9.0	600	0.25	1.0	11.4	100
MZ5930A	16	23.4	10	600	0.25	1.0	12.2	93
MZ5931A	18	20.8	12	650	0.25	1.0	13.7	83
MZ5932A	20	18.7	14	650	0.25	1.0	15.2	75
MZ5933A	22	17.0	17.5	650	0.25	1.0	16.7	68
MZ5934A	24	15.6	19	700	0.25	1.0	18.2	62
MZ5935A	27	13.9	23	700	0.25	1.0	20.6	55
MZ5936A	30	12.5	26	750	0.25	1.0	22.8	50
MZ5937A	33	11.4	33	800	0.25	1.0	25.1	45
MZ5938A	36	10.4	38	850	0.25	1.0	27.4	41
MZ5939A	39	9.6	45	900	0.25	1.0	29.7	38
MZ5940A	43	8.7	53	950	0.25	1.0	32.7	34
MZ5941A	47	8.0	67	1000	0.25	1.0	35.8	31
MZ5942A	51	7.3	70	1100	0.25	1.0	38.8	29
MZ5943A	56	6.7	86	1300	0.25	1.0	42.6	26
MZ5944A	62	6.0	100	1500	0.25	1.0	47.1	24
MZ5945A	68	5.5	120	1700	0.25	1.0	51.7	22
MZ5946A	75	5.0	140	2000	0.25	1.0	56.0	20
MZ5947A	82	4.6	160	2500	0.25	1.0	62.2	18
MZ5948A	91	4.1	200	3000	0.25	1.0	69.2	16
MZ5949A	100	3.7	250	3100	0.25	1.0	76.0	15
MZ5950A	110	3.4	300	4000	0.25	1.0	83.6	13
MZ5951A	120	3.1	380	4500	0.25	1.0	91.2	12
MZ5952A	130	2.9	450	5000	0.25	1.0	98.8	11
MZ5953A	150	2.5	600	6000	0.25	1.0	114.0	10
MZ5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0
MZ5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0
MZ5956A	200	1.9	1200	8000	0.25	1.0	152.0	7.0

Note : (1) Suffix "A" is for $\pm 10\%$ tolerance. Use suffix "B" for $\pm 5\%$ tolerance (Axial lead)



Zener Diodes 1.5 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}
	(V)	(mA)		(Ω)	(mA)	(μA)	(V)	(mA)

1SMA5913A Series, 1.5 W, Case Type : SMA



1SMA5913A	3.3	113.6	10	500	1.0	100	1.0	454
1SMA5914A	3.6	104.2	9.0	500	1.0	75	1.0	416
1SMA5915A	3.9	96.1	7.5	500	1.0	25	1.0	384
1SMA5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1SMA5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319
1SMA5918A	5.1	73.5	4.0	500	1.0	5.0	2.0	294
1SMA5919A	5.6	66.9	2.0	500	1.0	5.0	3.0	267
1SMA5920A	6.2	60.5	2.0	200	1.0	5.0	4.0	241
1SMA5921A	6.8	55.1	2.5	200	1.0	5.0	5.2	220
1SMA5922A	7.5	50.0	3.0	400	0.5	5.0	6.0	200
1SMA5923A	8.2	45.7	3.5	400	0.5	5.0	6.5	182
1SMA5924A	9.1	41.2	4.0	500	0.5	5.0	7.0	164
1SMA5925A	10	37.5	4.5	500	0.25	5.0	8.0	150
1SMA5926A	11	34.1	5.5	550	0.25	1.0	8.4	136
1SMA5927A	12	31.2	6.5	550	0.25	1.0	9.1	125
1SMA5928A	13	28.8	7.0	550	0.25	1.0	9.9	115
1SMA5929A	15	25.0	9.0	600	0.25	1.0	11.4	100
1SMA5930A	16	23.4	10	600	0.25	1.0	12.2	93
1SMA5931A	18	20.8	12	650	0.25	1.0	13.7	83
1SMA5932A	20	18.7	14	650	0.25	1.0	15.2	75
1SMA5933A	22	17.0	17.5	650	0.25	1.0	16.7	68
1SMA5934A	24	15.6	19	700	0.25	1.0	18.2	62
1SMA5935A	27	13.9	23	700	0.25	1.0	20.6	55
1SMA5936A	30	12.5	26	750	0.25	1.0	22.8	50
1SMA5937A	33	11.4	33	800	0.25	1.0	25.1	45
1SMA5938A	36	10.4	38	850	0.25	1.0	27.4	41
1SMA5939A	39	9.6	45	900	0.25	1.0	29.7	38
1SMA5940A	43	8.7	53	950	0.25	1.0	32.7	34
1SMA5941A	47	8.0	67	1000	0.25	1.0	35.8	31
1SMA5942A	51	7.3	70	1100	0.25	1.0	38.8	29
1SMA5943A	56	6.7	86	1300	0.25	1.0	42.6	26
1SMA5944A	62	6.0	100	1500	0.25	1.0	47.1	24
1SMA5945A	68	5.5	120	1700	0.25	1.0	51.7	22
1SMA5946A	75	5.0	140	2000	0.25	1.0	56.0	20
1SMA5947A	82	4.6	160	2500	0.25	1.0	62.2	18
1SMA5948A	91	4.1	200	3000	0.25	1.0	69.2	16
1SMA5949A	100	3.7	250	3100	0.25	1.0	76.0	15
1SMA5950A	110	3.4	300	4000	0.25	1.0	83.6	13
1SMA5951A	120	3.1	380	4500	0.25	1.0	91.2	12
1SMA5952A	130	2.9	450	5000	0.25	1.0	98.8	11
1SMA5953A	150	2.5	600	6000	0.25	1.0	114.0	10
1SMA5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0
1SMA5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0
1SMA5956A	200	1.9	1200	8000	0.25	1.0	152.0	7.0
1SMA5957A	240	1.5	1600	9000	0.25	1.0	182.4	6.0

Notes: (1) Suffix "A" indicates $\pm 10\%$ tolerance, change to suffix "B" for $\pm 5\%$ tolerance.

(2) "1SMA5" will be omitted in marking on the diode.



Zener Diodes 2.0 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

2EZ / SZ45 Series, 2.0 W, Case Type : DO-41/SMA

2EZ2.7D5	SZ452H	2.7	80	10	400	1.0	100	1.0	660
2EZ3.0D5	SZ453A	3.0	160	8.0	400	1.0	100	1.0	600
2EZ3.3D5	SZ453D	3.3	145	8.0	400	1.0	80	1.0	545
2EZ3.6D5	SZ453G	3.6	139	5.0	400	1.0	80	1.0	504
2EZ3.9D5	SZ453J	3.9	128	5.0	400	1.0	30	1.0	468
2EZ4.3D5	SZ454D	4.3	116	4.5	400	1.0	20	1.0	434
2EZ4.7D5	SZ454H	4.7	106	4.5	550	1.0	5.0	1.0	386
2EZ5.1D5	SZ455B	5.1	98.0	3.5	600	1.0	5.0	1.0	356
2EZ5.6D5	SZ455G	5.6	89.5	2.5	500	1.0	5.0	2.0	324
2EZ6.2D5	SZ456C	6.2	80.5	1.5	700	1.0	5.0	3.0	292
2EZ6.8D5	SZ456I	6.8	73.5	2.0	700	1.0	5.0	4.0	266
2EZ7.5D5	SZ457F	7.5	66.5	2.0	700	0.5	5.0	5.0	242
2EZ8.2D5	SZ458C	8.2	61.0	2.3	700	0.5	5.0	6.0	220
2EZ9.1D5	SZ459B	9.1	55.0	2.5	700	0.5	3.0	7.0	200
2EZ10D5	SZ4510	10	50.0	3.5	700	0.25	3.0	7.6	182
2EZ11D5	SZ4511	11	45.5	4.0	700	0.25	1.0	8.4	166
2EZ12D5	SZ4512	12	41.5	4.5	700	0.25	1.0	9.1	152
2EZ13D5	SZ4513	13	38.5	5.0	700	0.25	0.5	9.9	138
2EZ14D5	SZ4514	14	35.7	5.5	700	0.25	0.5	10.6	130
2EZ15D5	SZ4515	15	33.4	7.0	700	0.25	0.5	11.4	122
2EZ16D5	SZ4516	16	31.2	8.0	700	0.25	0.5	12.2	114
2EZ17D5	SZ4517	17	29.4	9.0	750	0.25	0.5	13.0	107
2EZ18D5	SZ4518	18	27.8	10	750	0.25	0.5	13.7	100
2EZ19D5	SZ4519	19	26.3	11	750	0.25	0.5	14.4	95
2EZ20D5	SZ4520	20	25.0	11	750	0.25	0.5	15.2	90
2EZ22D5	SZ4522	22	22.8	12	750	0.25	0.5	16.7	82
2EZ24D5	SZ4524	24	20.8	13	750	0.25	0.5	18.2	76
2EZ27D5	SZ4527	27	18.5	18	750	0.25	0.5	20.6	68
2EZ30D5	SZ4530	30	16.6	20	1000	0.25	0.5	22.5	60
2EZ33D5	SZ4533	33	15.1	23	1000	0.25	0.5	25.1	55
2EZ36D5	SZ4536	36	13.9	25	1000	0.25	0.5	27.4	50
2EZ39D5	SZ4539	39	12.8	30	1000	0.25	0.5	29.7	47
2EZ43D5	SZ4543	43	11.6	35	1500	0.25	0.5	32.7	43
2EZ47D5	SZ4547	47	10.6	40	1500	0.25	0.5	35.8	39
2EZ51D5	SZ4551	51	9.8	48	1500	0.25	0.5	38.8	36
2EZ56D5	SZ4556	56	9.0	55	2000	0.25	0.5	42.6	32
2EZ62D5	SZ4562	62	8.1	60	2000	0.25	0.5	47.1	29
2EZ68D5	SZ4568	68	7.4	75	2000	0.25	0.5	51.7	27
2EZ75D5	SZ4575	75	6.7	90	2000	0.25	0.5	56.0	24
2EZ82D5	SZ4582	82	6.1	100	3000	0.25	0.5	62.2	22
2EZ91D5	SZ4591	91	5.5	125	3000	0.25	0.5	69.2	20
2EZ100D5	SZ45B0	100	5.0	175	3000	0.25	0.5	76.0	18
2EZ110D5	SZ45B1	110	4.5	250	4000	0.25	0.5	83.6	17
2EZ120D5	SZ45B2	120	4.2	325	4500	0.25	0.5	91.2	15
2EZ130D5	SZ45B3	130	3.8	400	5000	0.25	0.5	98.8	14
2EZ140D5	SZ45B4	140	3.6	500	5500	0.25	0.5	106.4	13
2EZ150D5	SZ45B5	150	3.3	575	6000	0.25	0.5	114.0	12
2EZ160D5	SZ45B6	160	3.1	650	6500	0.25	0.5	121.6	11
2EZ170D5	SZ45B7	170	2.9	675	7000	0.25	0.5	130.4	11
2EZ180D5	SZ45B8	180	2.8	725	7000	0.25	0.5	136.8	10
2EZ190D5	SZ45B9	190	2.6	825	8000	0.25	0.5	144.8	10
2EZ200D5	SZ45D0	200	2.5	900	8000	0.25	0.5	152.0	9.0
2EZ220D5	SZ45D2	220	2.0	2000	8500	0.25	0.5	167	8.0
2EZ270D5	SZ45D7	270	1.6	2200	8500	0.25	0.5	205	6.7
2EZ300D5	SZ45E0	300	1.5	2200	9000	0.25	0.5	228	5.9
2EZ330D5	SZ45E3	330	1.4	2300	9000	0.25	0.5	250	5.4

Notes :

- (1) For V_Z ≤ 200 V; V_F = 1.2 V_{max}. @ I_F = 200 mA and for V_Z > 200 V; V_F = 2 V_{max}. @ I_F = 200 mA.
- (2) Suffix "5" indicates ± 5% tolerance, suffix "10" indicates ± 10% tolerance (Axial lead) / replace the fourth digit of type from "0" for ± 10% tolerance to "5" for ± 5% tolerance (SMD)
- (3) "EZ" for Axial Lead / "SZ" for SMD will be omitted on marking of the diode



Zener Diodes 2.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Zener Voltage ⁽²⁾ at I _{ZT}		Test Current	Dynamic resistance at I _{ZT}	Temp. coeff. of Zener Voltage at I _{ZT}	Maximum Reverse at I _R = 1 μA	Admissible Zener Current ⁽¹⁾ at Ta = 25 °C
	V _Z (V)						
	min.	max.	I _{ZT} (mA)	max. rzj (Ω)	α _{VZ} (10 ⁻⁴ /K)	V _R (V)	I _Z (mA)

ZY3.6 Series, 2 W, Case Type : DO-41



ZY3.6	3.4	3.8	100	7	-7...+2	-	440
ZY3.9	3.7	4.1	100	7	-7...+2	-	410
ZY4.3	4.0	4.6	100	7	-7...+3	-	360
ZY4.7	4.4	5.0	100	7	-7...+4	-	330
ZY5.1	4.8	5.4	100	5	-6...+5	-	300
ZY5.6	5.2	6.0	100	2	-3...+5	>1.5	275
ZY6.2	5.8	6.6	100	2	-1...+6	>1.5	245
ZY6.8	6.4	7.2	100	1	0...+7	>2.0	220
ZY7.5	7.0	7.9	100	1	0...+7	>2.0	200
ZY8.2	7.7	8.7	100	1	+3...+8	>3.5	180
ZY9.1	8.5	9.6	50	4	+3...+8	>7.4	165
ZY10	9.4	10.6	50	4	+5...+9	>8.2	145
ZY11	10.4	11.6	50	7	+5...+10	>9.2	135
ZY12	11.4	12.7	50	7	+5...+10	>10	120
ZY13	12.4	14.1	50	10	+5...+10	>10.7	110
ZY15	13.8	15.8	50	10	+5...+10	>12	98
ZY16	15.3	17.1	25	15	+6...+11	>13.3	90
ZY18	16.8	19.1	25	15	+6...+11	>14.7	80
ZY20	18.8	21.2	25	15	+6...+11	>16.5	72
ZY22	20.8	23.3	25	15	+6...+11	>18.3	66
ZY24	22.8	25.6	25	15	+6...+11	>20.1	60
ZY27	25.1	28.9	25	15	+6...+11	>22.5	53
ZY30	28	32	25	15	+6...+11	>25.1	48
ZY33	31	35	25	15	+6...+11	>27.8	44
ZY36	34	38	10	40	+6...+11	>30.2	40
ZY39	37	41	10	40	+6...+11	>32.9	37
ZY43	40	46	10	45	+7...+12	>35.6	33
ZY47	44	50	10	45	+7...+12	>39.2	30
ZY51	48	54	10	60	+7...+12	>42.8	27
ZY56	52	60	10	60	+7...+12	>47.3	25
ZY62	58	66	10	80	+8...+13	>51.7	21
ZY68	64	72	10	80	+8...+13	>57.1	20
ZY75	70	79	10	100	+8...+13	>63.2	18
ZY82	77	88	10	100	+8...+13	>68.6	16
ZY91	85	96	5	200	+9...+13	>75.7	15
ZY100	94	106	5	200	+9...+13	>83.7	13
ZY110	104	116	5	250	+9...+13	>92.6	12
ZY120	114	127	5	250	+9...+13	>101.6	11
ZY130	124	141	5	300	+9...+13	>110.5	10
ZY150	138	156	5	300	+9...+13	>123	9
ZY160	153	171	5	350	+9...+13	>136	8.5
ZY180	168	191	5	350	+9...+13	>149	8
ZY200	168	212	5	350	+9 ... +13	>167	7.5

Notes :

(1) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

(2) Tested with pulse $t_p = 5$ ms



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

1N5913A/SZ303D Series, 3.0/1.5 W, Case Type : DO-41/SMA

1N5913A	SZ303D	3.3	113.6	10.0	500	1.0	100	1.0	454
1N5914A	SZ303G	3.6	104.2	9.0	500	1.0	75	1.0	416
1N5915A	SZ303J	3.9	96.1	7.5	500	1.0	25	1.0	384
1N5916A	SZ304D	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1N5917A	SZ304H	4.7	79.8	5.0	500	1.0	5.0	1.5	319
1N5918A	SZ305B	5.1	73.5	4.0	350	1.0	5.0	2.0	294
1N5919A	SZ305G	5.6	66.9	2.0	250	1.0	5.0	3.0	267
1N5920A	SZ306C	6.2	60.5	2.0	200	1.0	5.0	4.0	241
1N5921A	SZ306I	6.8	55.1	2.5	200	1.0	5.0	5.2	220
1N5922A	SZ307F	7.5	50.0	3.0	400	0.5	5.0	6.0	200
1N5923A	SZ308C	8.2	45.7	3.5	400	0.5	5.0	6.5	182
1N5924A	SZ309B	9.1	41.2	4.0	500	0.5	5.0	7.0	164
1N5925A	SZ3010	10	37.5	4.5	500	0.25	5.0	8.0	150
1N5926A	SZ3011	11	34.1	5.5	550	0.25	1.0	8.4	136
1N5927A	SZ3012	12	31.2	6.5	550	0.25	1.0	9.1	125
1N5928A	SZ3013	13	28.8	7.0	550	0.25	1.0	9.9	115
1N5929A	SZ3015	15	25.0	9.0	600	0.25	1.0	11.4	100
1N5930A	SZ3016	16	23.4	10	600	0.25	1.0	12.2	93
1N5931A	SZ3018	18	20.8	12	650	0.25	1.0	13.7	83
1N5932A	SZ3020	20	18.7	14	650	0.25	1.0	15.2	75
1N5933A	SZ3022	22	17.0	17.5	650	0.25	1.0	16.7	68
1N5934A	SZ3024	24	15.6	19	700	0.25	1.0	18.2	62
1N5935A	SZ3027	27	13.9	23	700	0.25	1.0	20.6	55
1N5936A	SZ3030	30	12.5	26	750	0.25	1.0	22.8	50
1N5937A	SZ3033	33	11.4	33	800	0.25	1.0	25.1	45
1N5938A	SZ3036	36	10.4	38	850	0.25	1.0	27.4	41
1N5939A	SZ3039	39	9.6	45	900	0.25	1.0	29.7	38
1N5940A	SZ3043	43	8.7	53	950	0.25	1.0	32.7	34
1N5941A	SZ3047	47	8.0	67	1000	0.25	1.0	35.8	31
1N5942A	SZ3051	51	7.3	70	1100	0.25	1.0	38.8	29
1N5943A	SZ3056	56	6.7	86	1300	0.25	1.0	42.6	26
1N5944A	SZ3062	62	6.0	100	1500	0.25	1.0	47.1	24
1N5945A	SZ3068	68	5.5	120	1700	0.25	1.0	51.7	22
1N5946A	SZ3075	75	5.0	140	2000	0.25	1.0	56.0	20
1N5947A	SZ3082	82	4.6	160	2500	0.25	1.0	62.2	18
1N5948A	SZ3091	91	4.1	200	3000	0.25	1.0	69.2	16
1N5949A	SZ30B0	100	3.7	250	3100	0.25	1.0	76.0	15
1N5950A	SZ30B1	110	3.4	300	4000	0.25	1.0	83.6	13
1N5951A	SZ30B2	120	3.1	380	4500	0.25	1.0	91.2	12
1N5952A	SZ30B3	130	2.9	450	5000	0.25	1.0	98.8	11
1N5953A	SZ30B5	150	2.5	600	6000	0.25	1.0	114.0	10
1N5954A	SZ30B6	160	2.3	700	6500	0.25	1.0	121.6	9.0
1N5955A	SZ30B8	180	2.1	900	7000	0.25	1.0	136.8	8.0
1N5956A	SZ30D0	200	1.9	1200	8000	0.25	1.0	152.0	7.0

Notes :

- (1) V_F = 1.5 Vmax. @ I_F = 200mA
- (2) Suffix "A" is for ± 10% tolerance. Use suffix "B" for ± 5% tolerance (Axial lead) / replace the fourth digit of type from "0" for ± 10% tolerance to "5" for ± 5% tolerance (SMD)
- (3) "SZ" for SMD will be omitted on marking of the diode.



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
Axial Lead	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

1SMB5913A Series, 3.0W, Case Type : SMB



1SMB5913A	3.3	113.6	10.0	500	1.0	100	1.0	454
1SMB5914A	3.6	104.2	9.0	500	1.0	75	1.0	416
1SMB5915A	3.9	96.1	7.5	500	1.0	25	1.0	384
1SMB5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1SMB5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319
1SMB5918A	5.1	73.5	4.0	350	1.0	5.0	2.0	294
1SMB5919A	5.6	66.9	2.0	250	1.0	5.0	3.0	267
1SMB5920A	6.2	60.5	2.0	200	1.0	5.0	4.0	241
1SMB5921A	6.8	55.1	2.5	200	1.0	5.0	5.2	220
1SMB5922A	7.5	50.0	3.0	400	0.5	5.0	6.0	200
1SMB5923A	8.2	45.7	3.5	400	0.5	5.0	6.5	182
1SMB5924A	9.1	41.2	4.0	500	0.5	5.0	7.0	164
1SMB5925A	10	37.5	4.5	500	0.25	5.0	8.0	150
1SMB5926A	11	34.1	5.5	550	0.25	1.0	8.4	136
1SMB5927A	12	31.2	6.5	550	0.25	1.0	9.1	125
1SMB5928A	13	28.8	7.0	550	0.25	1.0	9.9	115
1SMB5929A	15	25.0	9.0	600	0.25	1.0	11.4	100
1SMB5930A	16	23.4	10	600	0.25	1.0	12.2	93
1SMB5931A	18	20.8	12	650	0.25	1.0	13.7	83
1SMB5932A	20	18.7	14	650	0.25	1.0	15.2	75
1SMB5933A	22	17.0	17.5	650	0.25	1.0	16.7	68
1SMB5934A	24	15.6	19	700	0.25	1.0	18.2	62
1SMB5935A	27	13.9	23	700	0.25	1.0	20.6	55
1SMB5936A	30	12.5	26	750	0.25	1.0	22.8	50
1SMB5937A	33	11.4	33	800	0.25	1.0	25.1	45
1SMB5938A	36	10.4	38	850	0.25	1.0	27.4	41
1SMB5939A	39	9.6	45	900	0.25	1.0	29.7	38
1SMB5940A	43	8.7	53	950	0.25	1.0	32.7	34
1SMB5941A	47	8.0	67	1000	0.25	1.0	35.8	31
1SMB5942A	51	7.3	70	1100	0.25	1.0	38.8	29
1SMB5943A	56	6.7	86	1300	0.25	1.0	42.6	26
1SMB5944A	62	6.0	100	1500	0.25	1.0	47.1	24
1SMB5945A	68	5.5	120	1700	0.25	1.0	51.7	22
1SMB5946A	75	5.0	140	2000	0.25	1.0	56.0	20
1SMB5947A	82	4.6	160	2500	0.25	1.0	62.2	18
1SMB5948A	91	4.1	200	3000	0.25	1.0	69.2	16
1SMB5949A	100	3.7	250	3100	0.25	1.0	76.0	15
1SMB5950A	110	3.4	300	4000	0.25	1.0	83.6	13
1SMB5951A	120	3.1	380	4500	0.25	1.0	91.2	12
1SMB5952A	130	2.9	450	5000	0.25	1.0	98.8	11
1SMB5953A	150	2.5	600	6000	0.25	1.0	114.0	10
1SMB5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0
1SMB5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0
1SMB5956A	200	1.9	1200	8000	0.25	1.0	152.0	7.0

Notes :

- (1) V_F = 1.5 Vmax. @ I_F = 200mA
- (2) Suffix "A" is for ± 10% tolerance. Use suffix "B" for ± 5% tolerance.
- (3) "SMB59" for SMD will be omitted on marking of the diode.



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

3EZ / SZ55 Series, 3.0 W, Case Type : DO-41/SMA

3EZ3.9D5	SZ553J	3.9	192	4.5	400	1.0	80	1.0	630
3EZ4.3D5	SZ554D	4.3	174	4.5	400	1.0	30	1.0	590
3EZ4.7D5	SZ554H	4.7	160	4.0	500	1.0	20	1.0	550
3EZ5.1D5	SZ555B	5.1	147	3.5	550	1.0	5.0	1.0	520
3EZ5.6D5	SZ555G	5.6	134	2.5	600	1.0	5.0	2.0	480
3EZ6.2D5	SZ556C	6.2	121	1.5	700	1.0	5.0	3.0	435
3EZ6.8D5	SZ556I	6.8	110	2.0	700	1.0	5.0	4.0	393
3EZ7.5D5	SZ557F	7.5	100	2.0	700	0.5	5.0	5.0	360
3EZ8.2D5	SZ558C	8.2	91	2.3	700	0.5	5.0	6.0	330
3EZ9.1D5	SZ559B	9.1	82	2.5	700	0.5	5.0	7.0	297
3EZ10D5	SZ5510	10	75	3.5	700	0.25	3.0	7.6	270
3EZ11D5	SZ5511	11	68	4.0	700	0.25	3.0	8.4	225
3EZ12D5	SZ5512	12	63	4.5	700	0.25	1.0	9.1	246
3EZ13D5	SZ5513	13	58	4.5	700	0.25	0.5	9.9	208
3EZ14D5	SZ5514	14	53	5.0	700	0.25	0.5	10.6	193
3EZ15D5	SZ5515	15	50	5.5	700	0.25	0.5	11.4	180
3EZ16D5	SZ5516	16	47	5.5	700	0.25	0.5	12.2	169
3EZ17D5	SZ5517	17	44	6.0	750	0.25	0.5	13.0	159
3EZ18D5	SZ5518	18	42	6.0	750	0.25	0.5	13.7	150
3EZ19D5	SZ5519	19	40	7.0	750	0.25	0.5	14.4	142
3EZ20D5	SZ5520	20	37	7.0	750	0.25	0.5	15.2	135
3EZ22D5	SZ5522	22	34	8.0	750	0.25	0.5	16.7	123
3EZ24D5	SZ5524	24	31	9.0	750	0.25	0.5	18.2	112
3EZ27D5	SZ5527	27	28	10	750	0.25	0.5	20.6	100
3EZ28D5	SZ5528	28	27	12	750	0.25	0.5	21.0	96
3EZ30D5	SZ5530	30	25	16	1000	0.25	0.5	22.5	90
3EZ33D5	SZ5533	33	23	20	1000	0.25	0.5	25.1	82
3EZ36D5	SZ5536	36	21	22	1000	0.25	0.5	27.4	75
3EZ39D5	SZ5539	39	19	28	1000	0.25	0.5	29.7	69
3EZ43D5	SZ5543	43	17	33	1500	0.25	0.5	32.7	63
3EZ47D5	SZ5547	47	16	38	1500	0.25	0.5	35.6	57
3EZ51D5	SZ5551	51	15	45	1500	0.25	0.5	38.8	53
3EZ56D5	SZ5556	56	13	50	2000	0.25	0.5	42.6	48
3EZ62D5	SZ5562	62	12	55	2000	0.25	0.5	47.1	44
3EZ68D5	SZ5568	68	11	70	2000	0.25	0.5	51.7	40
3EZ75D5	SZ5575	75	10	85	2000	0.25	0.5	56.0	36
3EZ82D5	SZ5582	82	9.1	95	3000	0.25	0.5	62.2	33
3EZ91D5	SZ5591	91	8.2	115	3000	0.25	0.5	69.2	30
3EZ100D5	SZ55B0	100	7.5	160	3000	0.25	0.5	76.0	27
3EZ110D5	SZ55B1	110	6.8	225	4000	0.25	0.5	83.6	25
3EZ120D5	SZ55B2	120	6.3	300	4500	0.25	0.5	91.2	22
3EZ130D5	SZ55B3	130	5.8	375	5000	0.25	0.5	98.8	21
3EZ140D5	SZ55B4	140	5.3	475	5000	0.25	0.5	106.4	19
3EZ150D5	SZ55B5	150	5.0	550	6000	0.25	0.5	114.0	18
3EZ160D5	SZ55B6	160	4.7	625	6500	0.25	0.5	121.6	17
3EZ170D5	SZ55B7	170	4.4	650	7000	0.25	0.5	130.4	16
3EZ180D5	SZ55B8	180	4.2	700	7000	0.25	0.5	136.8	15
3EZ190D5	SZ55B9	190	4.0	800	8000	0.25	0.5	144.8	14
3EZ200D5	SZ55D0	200	3.7	875	8000	0.25	0.5	152.0	13

Notes :

- (1) V_F = 1.5 Vmax. @ I_F = 200mA.
- (2) Suffix "5" indicates ± 5% tolerance, suffix "10" indicates ± 10% tolerance (Axial lead) / replace the fourth digit of type from "0" for ± 10% tolerance to "5" for ± 5% tolerance (SMD)
- (3) " 3EZ " for Axial Lead / "SZ " for SMD will be omitted on marking of the diode



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Working Voltage			Test Current	Differential Resistance		Temperature Coefficient		Maximum Reverse Leakage Current	
	$V_Z @ I_Z$			I_Z	$r_{diff}(\Omega) \text{ at } I_Z$		$S_Z (\%/K) \text{ at } I_Z$		$I_R @ V_R$	
	Min.	Nom.	Max.	(mA)	Typ.	Max.	Min.	Max.	(μA)	(V)

BZG03-C Series, 3 W, Case Type : SMA



BZG03-C10	9.4	10	10.6	50	2	4	0.05	0.09	7.0	7.5
BZG03-C11	10.4	11	11.6	50	4	7	0.05	0.10	4.0	8.2
BZG03-C12	11.4	12	12.7	50	4	7	0.05	0.10	3.0	9.1
BZG03-C13	12.4	13	14.1	50	5	10	0.05	0.10	2.0	10
BZG03-C15	13.8	15	15.6	50	5	10	0.05	0.10	1.0	11
BZG03-C16	15.3	16	17.1	25	6	15	0.05	0.11	1.0	12
BZG03-C18	16.8	18	19.1	25	6	15	0.06	0.11	1.0	13
BZG03-C20	18.8	20	21.2	25	6	15	0.06	0.11	1.0	15
BZG03-C22	20.8	22	23.3	25	6	15	0.06	0.11	1.0	16
BZG03-C24	22.8	24	25.6	25	7	15	0.06	0.11	1.0	18
BZG03-C27	25.1	27	28.9	25	7	15	0.06	0.11	1.0	20
BZG03-C30	28	30	32	25	8	15	0.06	0.11	1.0	22
BZG03-C33	31	33	35	25	8	15	0.06	0.11	1.0	24
BZG03-C36	34	36	38	10	21	40	0.06	0.11	1.0	27
BZG03-C39	37	39	41	10	21	40	0.06	0.11	1.0	30
BZG03-C43	40	43	46	10	24	45	0.07	0.12	1.0	33
BZG03-C47	44	47	50	10	24	45	0.07	0.12	1.0	36
BZG03-C51	48	51	54	10	25	60	0.07	0.12	1.0	39
BZG03-C56	52	56	60	10	25	60	0.07	0.12	1.0	43
BZG03-C62	58	62	66	10	25	80	0.08	0.13	1.0	47
BZG03-C68	64	68	72	10	25	80	0.08	0.13	1.0	51
BZG03-C75	70	75	79	10	30	100	0.08	0.13	1.0	56
BZG03-C82	77	82	87	10	30	100	0.08	0.13	1.0	62
BZG03-C91	85	91	96	5.0	60	200	0.09	0.13	1.0	68
BZG03-C100	94	100	106	5.0	60	200	0.09	0.13	1.0	75
BZG03-C110	104	110	116	5.0	80	250	0.09	0.13	1.0	82
BZG03-C120	114	120	127	5.0	80	250	0.09	0.13	1.0	91
BZG03-C130	124	130	141	5.0	110	300	0.09	0.13	1.0	100
BZG03-C150	138	150	156	5.0	130	300	0.09	0.13	1.0	110
BZG03-C160	153	160	171	5.0	150	350	0.09	0.13	1.0	120
BZG03-C180	168	180	191	5.0	180	400	0.09	0.13	1.0	130
BZG03-C200	188	200	212	5.0	200	500	0.09	0.13	1.0	150
BZG03-C220	208	220	233	2.0	350	750	0.09	0.13	1.0	160
BZG03-C240	228	240	256	2.0	400	850	0.09	0.13	1.0	180
BZG03-C270	251	270	289	2.0	450	1000	0.09	0.13	1.0	200

Note : (1) "BZG03-" will be omitted in marking on the diode, e.g. p/n BZG03-C10 marking "C10".



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Standoff Voltage		Min. Breakdown Voltage		T _{KVZ} @ I _R		Max. Clamping Voltage		Typical Junction Capacitance
	V _R	I _{R(max)}	V _(BR) @ I _R		(% / K)		V _{CL(R)} @ I _{PP}	@ I _{ZT}	@ V _R = 0 V, f = 1MHz
	V	(μ A)	V	mA	typ	Max	V ⁽¹⁾	A ⁽¹⁾	C _J (pF)

BZG04- Series, 3 W, Case Type : SMA



BZG04-8V2	8.2	20	9.4	50	0.05	0.09	14.8	20.3	1200
BZG04-9V1	9.1	5	10.4	50	0.05	0.10	15.7	19.1	1100
BZG04-10	10	5	11.4	50	0.05	0.10	17.0	17.7	1000
BZG04-11	11	5	12.4	50	0.05	0.10	18.9	15.9	850
BZG04-12	12	5	13.8	50	0.05	0.11	20.9	14.4	815
BZG04-13	13	5	15.3	25	0.06	0.11	22.9	13.1	785
BZG04-15	15	5	16.8	25	0.06	0.11	25.6	11.7	710
BZG04-16	16	5	18.8	25	0.06	0.11	28.4	10.6	655
BZG04-18	18	5	20.8	25	0.06	0.11	31.0	9.7	610
BZG04-20	20	5	22.8	25	0.06	0.11	33.8	8.9	570
BZG04-22	22	5	25.1	25	0.06	0.11	38.1	7.9	545
BZG04-24	24	5	28	25	0.06	0.11	42.2	7.1	505
BZG04-27	27	5	31	25	0.06	0.11	46.2	6.5	475
BZG04-30	30	5	34	10	0.06	0.11	50.1	6.0	450
BZG04-33	33	5	37	10	0.06	0.11	54.1	5.5	420
BZG04-36	36	5	40	10	0.07	0.12	60.7	4.9	390
BZG04-39	39	5	44	10	0.07	0.12	65.5	4.6	370
BZG04-43	43	5	48	10	0.07	0.12	70.8	4.2	350
BZG04-47	47	5	52	10	0.07	0.12	78.6	3.8	330
BZG04-51	51	5	58	10	0.08	0.13	86.5	3.5	310
BZG04-56	56	5	64	10	0.08	0.13	94.4	3.2	291
BZG04-62	62	5	70	10	0.08	0.13	103.5	2.9	280
BZG04-68	68	5	77	10	0.08	0.13	114	2.6	275
BZG04-75	75	5	85	5	0.09	0.13	126	2.4	260
BZG04-82	82	5	94	5	0.09	0.13	139	2.2	250
BZG04-91	91	5	104	5	0.09	0.13	152	2.0	243
BZG04-100	100	5	114	5	0.09	0.13	167	1.8	170
BZG04-110	110	5	124	5	0.09	0.13	185	1.6	153
BZG04-120	120	5	138	5	0.09	0.13	204	1.5	150
BZG04-130	130	5	153	5	0.09	0.13	224	1.3	145
BZG04-150	150	5	168	5	0.09	0.13	249	1.2	140
BZG04-160	160	5	188	5	0.09	0.13	276	1.1	135
BZG04-180	180	5	208	2	0.09	0.13	305	1.0	131
BZG04-200	200	5	228	2	0.09	0.13	336	0.9	122
BZG04-220	220	5	251	2	0.09	0.13	380	0.8	120

Note : (1) "BZG0 - " will be omitted in marking on the diode, e.g. p/n BZG04-8V2 marking "48V2".



Zener Diodes 3.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Zener Voltage			Test Current	Maximum Dynamic Resistance		Test Current	Temp. coefficient of Zener Voltage		Maximum Reverse Leakage Current	
	V _Z @ I _{ZT}				r _{zjT} @	r _{zjK} @		@I _{ZT}			
	Min	typ	Max	I _{ZT}	I _{ZK}	I _{ZK}	I _{ZK}	(% / K)		I _R	@ V _R
	(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	Min	Max	(μA)	(V)

BZG05C Series, 3 W, Case Type : SMA



BZG05C3V3	3.1	3.3	3.5	80	20	400	1.0	-0.08	0.05	40	1.0
BZG05C3V6	3.4	3.6	3.8	60	20	500	1.0	-0.08	-0.05	20	1.0
BZG05C3V9	3.7	3.9	4.1	60	15	500	1.0	-0.07	-0.02	10	1.0
BZG05C4V3	4.0	4.3	4.6	50	13	500	1.0	-0.07	-0.01	3.0	1.0
BZG05C4V7	4.4	4.7	5.0	45	13	600	1.0	-0.03	0.040	3.0	1.0
BZG05C5V1	4.8	5.1	5.4	45	10	500	1.0	-0.01	0.040	1.0	1.5
BZG05C5V6	5.2	5.6	6.0	45	7.0	400	1.0	0.00	0.045	1.0	2.0
BZG05C6V2	5.8	6.2	6.6	35	4.0	300	1.0	0.010	0.055	1.0	3.0
BZG05C6V8	6.4	6.8	7.2	35	3.5	300	1.0	0.015	0.060	1.0	4.0
BZG05C7V5	7.0	7.5	7.9	35	3.0	200	0.5	0.020	0.065	1.0	4.5
BZG05C8V2	7.7	8.2	8.7	25	5.0	200	0.5	0.030	0.070	1.0	6.2
BZG05C9V1	8.5	9.1	9.6	25	5.0	200	0.5	0.035	0.075	1.0	6.8
BZG05C10	9.4	10	10.6	25	7.0	200	0.5	0.040	0.080	0.5	7.0
BZG05C11	10.4	11	11.6	20	8.0	300	0.5	0.045	0.080	0.5	8.2
BZG05C12	11.4	12	12.7	20	9.0	350	0.5	0.045	0.085	0.5	9.1
BZG05C13	12.4	13	14.1	20	10	400	0.5	0.050	0.085	0.5	10
BZG05C15	13.8	15	15.6	15	15	500	0.5	0.055	0.090	0.5	11
BZG05C16	15.3	16	17.1	15	15	500	0.5	0.055	0.090	0.5	12
BZG05C18	16.8	18	19.1	15	20	500	0.5	0.060	0.090	0.5	13
BZG05C20	18.8	20	21.2	10	24	600	0.5	0.060	0.090	0.5	15
BZG05C22	20.8	22	23.3	10	25	600	0.5	0.060	0.095	0.5	16
BZG05C24	22.8	24	25.6	10	25	600	0.5	0.060	0.095	0.5	18
BZG05C27	25.1	27	28.9	8	30	750	0.25	0.060	0.095	0.5	20
BZG05C30	28	30	32	8	30	1000	0.25	0.060	0.095	0.5	22
BZG05C33	31	33	35	8	35	1000	0.25	0.060	0.095	0.5	24
BZG05C36	34	36	38	8	40	1000	0.25	0.060	0.095	0.5	27
BZG05C39	37	39	41	6	50	1000	0.25	0.060	0.095	0.5	30
BZG05C43	40	43	46	6	50	1000	0.25	0.060	0.095	0.5	33
BZG05C47	44	47	50	4	90	1500	0.25	0.060	0.095	0.5	36
BZG05C51	48	51	54	4	115	1500	0.25	0.060	0.095	0.5	39
BZG05C56	52	56	60	4	120	2000	0.25	0.060	0.095	0.5	43
BZG05C62	58	62	66	4	125	2000	0.25	0.060	0.095	0.5	47
BZG05C68	64	68	72	4	130	2000	0.25	0.060	0.095	0.5	51
BZG05C75	70	75	79	4	135	2000	0.25	0.060	0.095	0.5	56
BZG05C82	77	82	87	2.7	200	3000	0.25	0.060	0.095	0.5	62
BZG05C91	85	91	96	2.7	250	3000	0.25	0.060	0.095	0.5	68
BZG05C100	95	100	106	2.7	350	3000	0.25	0.060	0.095	0.5	75

Note : (1) "BZG0 C " will be omitted in marking on the diode, e.g. p/n BZG05C3V3 marking "53V3".



Zener Diodes 5.0 W

The plastic material carries U/L recognition 94V-0.

Type No.		Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current			Maximum DC. Zener Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{KT} @ I _{ZT}	Z _{KK} @ I _{ZK}	I _{ZK}	I _R @ V _R (V)			I _{ZM}
Axial Lead	SMD	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	Suffix "A"	Suffix "B"	(mA)

1N5333A/SZ60 Series, 5 W, Case Type : DO-15/SMB

1N5338A	SZ605B	5.1	240	1.5	400	1.0	1.0	1.0	1.0	930
1N5339A	SZ605G	5.6	220	1.0	400	1.0	1.0	2.0	2.0	856
1N5340A	SZ606A	6.0	200	1.0	300	1.0	1.0	3.0	3.0	790
1N5341A	SZ606C	6.2	200	1.0	200	1.0	1.0	3.0	3.0	765
1N5342A	SZ606I	6.8	175	1.0	200	1.0	10	4.9	5.2	700
1N5343A	SZ607F	7.5	175	1.5	200	1.0	10	5.4	5.7	630
1N5344A	SZ608C	8.2	150	1.5	200	1.0	10	5.9	6.2	580
1N5345A	SZ608H	8.7	150	2.0	200	1.0	10	6.25	6.6	545
1N5346A	SZ609B	9.1	150	2.0	150	1.0	7.5	6.6	6.9	520
1N5347A	SZ6010	10	125	2.0	125	1.0	5.0	7.2	7.6	475
1N5348A	SZ6011	11	125	2.5	125	1.0	5.0	8.0	8.4	430
1N5349A	SZ6012	12	100	2.5	125	1.0	2.0	8.6	9.1	395
1N5350A	SZ6013	13	100	2.5	100	1.0	1.0	9.4	9.9	365
1N5351A	SZ6014	14	100	2.5	75	1.0	1.0	10.1	10.6	340
1N5352A	SZ6015	15	75	2.5	75	1.0	1.0	10.8	11.5	315
1N5353A	SZ6016	16	75	2.5	75	1.0	1.0	11.5	12.2	295
1N5354A	SZ6017	17	70	2.5	75	1.0	0.5	12.2	12.9	280
1N5355A	SZ6018	18	65	2.5	75	1.0	0.5	13.0	13.7	265
1N5356A	SZ6019	19	65	8.0	75	1.0	0.5	13.7	14.4	250
1N5357A	SZ6020	20	65	3.0	75	1.0	0.5	14.4	15.2	237
1N5358A	SZ6022	22	50	3.5	75	1.0	0.5	15.8	16.7	216
1N5359A	SZ6024	24	50	3.5	100	1.0	0.5	17.3	18.2	198
1N5360A	SZ6025	25	50	4.0	110	1.0	0.5	18.0	19.0	190
1N5361A	SZ6027	27	50	5.0	120	1.0	0.5	19.4	20.6	176
1N5362A	SZ6028	28	50	6.0	130	1.0	0.5	20.1	21.2	170
1N5363A	SZ6030	30	40	8.0	140	1.0	0.5	21.6	22.8	158
1N5364A	SZ6033	33	40	10	150	1.0	0.5	23.8	25.1	144
1N5365A	SZ6036	36	30	11	160	1.0	0.5	25.9	27.4	132
1N5366A	SZ6039	39	30	14	170	1.0	0.5	28.1	29.7	122
1N5367A	SZ6043	43	30	20	190	1.0	0.5	31.0	32.7	110
1N5368A	SZ6047	47	25	25	210	1.0	0.5	33.8	35.8	100
1N5369A	SZ6051	51	25	27	230	1.0	0.5	36.7	38.8	93.0
1N5370A	SZ6056	56	20	35	280	1.0	0.5	40.3	42.6	86.0
1N5371A	SZ6060	60	20	40	350	1.0	0.5	43.0	45.5	79.0
1N5372A	SZ6062	62	20	42	400	1.0	0.5	44.6	47.1	76.0
1N5373A	SZ6068	68	20	44	500	1.0	0.5	49.0	51.7	70.0
1N5374A	SZ6075	75	20	45	620	1.0	0.5	54.0	56.0	63.0
1N5375A	SZ6082	82	15	65	720	1.0	0.5	59.0	62.2	58.0
1N5376A	SZ6087	87	15	75	760	1.0	0.5	63.0	66.0	54.5
1N5377A	SZ6091	91	15	75	760	1.0	0.5	65.5	69.2	52.5
1N5378A	SZ60B0	100	12	90	800	1.0	0.5	72.0	76.0	47.5
1N5379A	SZ60B1	110	12	125	1000	1.0	0.5	79.2	83.6	43.0
1N5380A	SZ60B2	120	10	170	1150	1.0	0.5	86.4	91.2	39.5
1N5381A	SZ60B3	130	10	190	1250	1.0	0.5	93.2	98.8	36.6
1N5382A	SZ60B4	140	8.0	230	1500	1.0	0.5	101	106	34.0
1N5383A	SZ60B5	150	8.0	330	1500	1.0	0.5	108	114	31.6
1N5384A	SZ60B6	160	8.0	350	1650	1.0	0.5	115	122	29.4
1N5385A	SZ60B7	170	8.0	380	1750	1.0	0.5	122	129	28.0
1N5386A	SZ60B8	180	5.0	430	1750	1.0	0.5	130	137	26.4
1N5387A	SZ60B9	190	5.0	450	1850	1.0	0.5	137	144	25.0
1N5388A	SZ60D0	200	5.0	480	1850	1.0	0.5	144	152	23.6

Notes :

- (1) V_F = 1.2 Vmax. @ I_F = 1 A(3.3V to 200V)
- (2) V_F = 2.0 Vmax. @ I_F = 1 A(220V to 240V)
- (3) Use suffix "A" for ± 10% tolerance and suffix "B" for ± 5% tolerance (Axial lead) / replace the fourth digit of type from "0" for ± 10% tolerance to "5" for ± 5% tolerance (SMD).
- (4) "SZ" for SMD will be omitted on marking of the diode



Zener Diodes 5.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC. Zener Current
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)

1N4954 Series, 5 W, Case Type : DO-15



1N4954	6.8	175	1.0	1000	1.0	150	5.2	29.3
1N4955	7.5	175	1.5	800	1.0	100	5.7	26.4
1N4956	8.2	150	1.5	600	1.0	50	6.2	24.0
1N4957	9.1	150	2.0	400	1.0	25	6.9	22.0
1N4958	10	125	2.0	125	1.0	25.0	7.6	20.0
1N4959	11	125	2.5	130	1.0	10.0	8.4	19.0
1N4960	12	100	2.5	140	1.0	10.0	9.1	18.0
1N4961	13	100	3.0	145	1.0	10.0	9.9	16.0
1N4962	15	75	3.5	150	1.0	5.0	11.4	12.0
1N4963	16	75	3.5	155	1.0	5.0	12.2	10.0
1N4964	18	65	4.0	160	1.0	5.0	13.7	9.0
1N4965	20	65	4.5	165	1.0	2.0	15.2	8.0
1N4966	22	50	5.0	170	1.0	2.0	16.7	7.0
1N4967	24	50	5.0	175	1.0	2.0	18.2	6.5
1N4968	27	50	6.0	180	1.0	2.0	20.6	6.0
1N4969	30	40	8.0	190	1.0	2.0	22.8	5.5
1N4970	33	40	10	200	1.0	2.0	25.1	5.0
1N4971	36	30	11	220	1.0	2.0	27.4	4.5
1N4972	39	30	14	230	1.0	2.0	29.7	4.0
1N4973	43	30	20	240	1.0	2.0	32.7	3.5
1N4974	47	25	25	250	1.0	2.0	35.8	3.2
1N4975	51	25	27	270	1.0	2.0	38.8	3.0
1N4976	56	20	35	320	1.0	2.0	42.6	2.8
1N4977	62	20	42	400	1.0	2.0	47.1	2.5
1N4978	68	20	50	500	1.0	2.0	51.7	2.2
1N4979	75	20	55	620	1.0	2.0	56.0	2.0
1N4980	82	15	80	720	1.0	2.0	62.2	1.8
1N4981	91	15	90	760	1.0	2.0	69.2	1.6
1N4982	100	12	110	800	1.0	2.0	76.0	1.4
1N4983	110	12	125	1000	1.0	2.0	83.6	1.2
1N4984	120	10	170	1150	1.0	2.0	91.2	1.00
1N4985	130	10	190	1250	1.0	2.0	98.8	0.80
1N4986	150	8	330	1500	1.0	2.0	114	0.75
1N4987	160	8	350	1650	1.0	2.0	121.6	0.70
1N4988	180	5	450	1750	1.0	2.0	136.8	0.60
1N4989	200	5	500	1850	1.0	2.0	152	0.50

Notes :

- (1) Maximum voltage change ΔV_Z between 10% of I_{ZM} and 50% of I_{ZM}
- (2) Standard voltage tolerance is $\pm 5\%$



Zener Diodes 5.0 W

The plastic material carries U/L recognition 94V-0.

Type No.	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current			Maximum DC Zener Current
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R (V)$			I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	Suffix "A"	Suffix "B"	(mA)

SMBJ5333A Series, 5 W, Case Type : SMB



SMBJ5338A	5.1	240	1.5	400	1.0	1.0	1.0	1.0	930
SMBJ5339A	5.6	220	1.0	400	1.0	1.0	2.0	2.0	856
SMBJ5340A	6.0	200	1.0	300	1.0	1.0	3.0	3.0	790
SMBJ5341A	6.2	200	1.0	200	1.0	1.0	3.0	3.0	765
SMBJ5342A	6.8	175	1.0	200	1.0	10	4.9	5.2	700
SMBJ5343A	7.5	175	1.0	200	1.0	10	5.4	5.7	630
SMBJ5344A	8.2	150	1.0	200	1.0	10	5.9	6.2	580
SMBJ5345A	8.7	150	1.0	200	1.0	10	6.25	6.6	545
SMBJ5346A	9.1	150	2.0	150	1.0	7.5	6.6	6.9	520
SMBJ5347A	10	125	2.0	125	1.0	5.0	7.2	7.6	475
SMBJ5348A	11	125	2.0	125	1.0	5.0	8.0	8.4	430
SMBJ5349A	12	100	2.5	125	1.0	2.0	8.6	9.1	395
SMBJ5350A	13	100	2.5	100	1.0	1.0	9.4	9.9	365
SMBJ5351A	14	100	2.5	75	1.0	1.0	10.1	10.6	340
SMBJ5352A	15	75	2.5	75	1.0	1.0	10.8	11.5	315
SMBJ5353A	16	75	2.5	75	1.0	1.0	11.5	12.2	295
SMBJ5354A	17	70	2.5	75	1.0	0.5	12.2	12.9	280
SMBJ5355A	18	65	2.5	75	1.0	0.5	13.0	13.7	265
SMBJ5356A	19	65	3.0	75	1.0	0.5	13.7	14.4	250
SMBJ5357A	20	65	3.0	75	1.0	0.5	14.4	15.2	237
SMBJ5358A	22	50	3.5	75	1.0	0.5	15.8	16.7	216
SMBJ5359A	24	50	3.5	100	1.0	0.5	17.3	18.2	198
SMBJ5360A	25	50	4.0	110	1.0	0.5	18.0	19.0	190
SMBJ5361A	27	50	5.0	120	1.0	0.5	19.4	20.6	176
SMBJ5362A	28	50	6.0	130	1.0	0.5	20.1	21.2	170
SMBJ5363A	30	40	8.0	140	1.0	0.5	21.6	22.8	158
SMBJ5364A	33	40	10	150	1.0	0.5	23.8	25.1	144
SMBJ5365A	36	30	11	160	1.0	0.5	25.9	27.4	132
SMBJ5366A	39	30	14	170	1.0	0.5	28.1	29.7	122
SMBJ5367A	43	30	20	190	1.0	0.5	31.0	32.7	110
SMBJ5368A	47	25	25	210	1.0	0.5	33.8	35.8	100
SMBJ5369A	51	25	27	230	1.0	0.5	36.7	38.8	93.0
SMBJ5370A	56	20	35	280	1.0	0.5	40.3	42.6	86.0
SMBJ5371A	60	20	40	350	1.0	0.5	43.0	45.5	79.0
SMBJ5372A	62	20	42	400	1.0	0.5	44.6	47.1	76.0
SMBJ5373A	68	20	44	500	1.0	0.5	49.0	51.7	70.0
SMBJ5374A	75	20	45	620	1.0	0.5	54.0	56.0	63.0
SMBJ5375A	82	15	65	720	1.0	0.5	59.0	62.2	58.0
SMBJ5376A	87	15	75	760	1.0	0.5	63.0	66.0	54.5
SMBJ5377A	91	15	75	760	1.0	0.5	65.5	69.2	52.5
SMBJ5378A	100	12	90	800	1.0	0.5	72.0	76.0	47.5
SMBJ5379A	110	12	125	1000	1.0	0.5	79.2	83.6	43.0
SMBJ5380A	120	10	170	1150	1.0	0.5	86.4	91.2	39.5
SMBJ5381A	130	10	190	1250	1.0	0.5	93.2	98.8	36.6
SMBJ5382A	140	8.0	230	1500	1.0	0.5	101	106	34.0
SMBJ5383A	150	8.0	330	1500	1.0	0.5	108	114	31.6
SMBJ5384A	160	8.0	350	1650	1.0	0.5	115	122	29.4
SMBJ5385A	170	8.0	380	1750	1.0	0.5	122	129	28.0
SMBJ5386A	180	5.0	430	1750	1.0	0.5	130	137	26.4
SMBJ5387A	190	5.0	450	1850	1.0	0.5	137	144	25.0
SMBJ5388A	200	5.0	480	1850	1.0	0.5	144	152	23.6

Note : Suffix "A" indicates $\pm 10\%$ tolerance, change to suffix "B" for $\pm 5\%$ tolerance. "SMBJ53" will be omitted on marking of the diode.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		V_{WM}	I_R	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)

TGL34 Series, 150W, Case Type: Mini MELF (Plastic)



TGL34-6.8	6.12	7.48	10	5.5	1000	10.8	13.9
TGL34-6.8A	6.45	7.14	10	5.8	1000	10.5	14.3
TGL34-7.5	6.75	8.25	10	6.0	500	11.7	12.8
TGL34-7.5A	7.13	7.88	10	6.4	500	11.3	13.3
TGL34-8.2	7.38	9.02	10	6.6	200	12.5	12.0
TGL34-8.2A	7.79	8.61	10	7.0	200	12.1	12.4
TGL34-9.1	8.19	10.0	1.0	7.3	50	13.8	10.9
TGL34-9.1A	8.65	9.55	1.0	7.7	50	13.4	11.2
TGL34-10	9.0	11.0	1.0	8.1	10	15.0	10.0
TGL34-10A	9.5	10.5	1.0	8.5	10	14.5	10.3
TGL34-11	9.9	12.1	1.0	8.9	5	16.2	9.3
TGL34-11A	10.5	11.6	1.0	9.4	5	15.6	9.6
TGL34-12	10.8	13.2	1.0	9.7	5	17.3	8.7
TGL34-12A	11.4	12.6	1.0	10.2	5	16.7	9.0
TGL34-13	11.7	14.3	1.0	10.5	5	19.0	7.9
TGL34-13A	12.4	13.7	1.0	11.1	5	18.2	8.2
TGL34-15	13.5	16.5	1.0	12.1	5	22.0	6.8
TGL34-15A	14.3	15.8	1.0	12.8	5	21.2	7.1
TGL34-16	14.4	17.6	1.0	12.9	5	23.5	6.4
TGL34-16A	15.2	16.8	1.0	13.6	5	22.5	6.7
TGL34-18	16.2	19.8	1.0	14.5	5	26.5	5.7
TGL34-18A	17.1	18.9	1.0	15.3	5	25.2	6.0
TGL34-20	18.0	22.0	1.0	16.2	5	29.1	5.2
TGL34-20A	19.0	21.0	1.0	17.1	5	27.7	5.4
TGL34-22	19.8	24.2	1.0	17.8	5	31.9	4.7
TGL34-22A	20.9	23.1	1.0	18.8	5	30.6	4.9
TGL34-24	21.6	26.4	1.0	19.4	5	34.7	4.3
TGL34-24A	22.8	25.2	1.0	20.5	5	33.2	4.5
TGL34-27	24.3	29.7	1.0	21.8	5	39.1	3.8
TGL34-27A	25.7	28.4	1.0	23.1	5	37.5	4.0
TGL34-30	27.0	30.0	1.0	24.3	5	43.5	3.4
TGL34-30A	28.5	31.5	1.0	25.6	5	41.4	3.6
TGL34-33	29.7	36.3	1.0	26.8	5	47.7	3.1
TGL34-33A	31.4	34.7	1.0	28.2	5	45.7	3.3
TGL34-36	32.4	39.6	1.0	29.1	5	52.0	2.9
TGL34-36A	34.2	37.8	1.0	30.8	5	49.9	3.0
TGL34-39	35.1	42.9	1.0	31.6	5	56.4	2.7
TGL34-39A	37.1	41.0	1.0	33.3	5	53.9	2.8

Note : (1) For bidirectional use suffix "C" or "CA"



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		V_{WM}	I_R	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)

TGL34 Series, 150W, Case Type: Mini MELF (Plastic)



TGL34-43	38.7	47.3	1.0	34.8	5	61.9	2.4
TGL34-43A	40.9	45.2	1.0	36.8	5	59.3	2.5
TGL34-47	42.3	51.7	1.0	38.1	5	67.8	2.2
TGL34-47A	44.7	49.4	1.0	40.2	5	64.8	2.3
TGL34-51	45.9	56.1	1.0	41.3	5	73.5	2.0
TGL34-51A	48.5	53.6	1.0	43.6	5	70.1	2.1
TGL34-56	50.4	61.6	1.0	45.4	5	81	1.9
TGL34-564A	53.2	58.8	1.0	47.8	5	77	1.9
TGL34-62	55.8	68.8	1.0	50.2	5	89	1.7
TGL34-62A	58.9	65.1	1.0	53.0	5	85	1.8
TGL34-68	61.2	74.8	1.0	55.1	5	98	1.5
TGL34-68A	64.6	71.4	1.0	58.1	5	92	1.6
TGL34-75	67.5	82.5	1.0	60.7	5	108	1.4
TGL34-75A	71.3	78.8	1.0	64.1	5	103	1.5
TGL34-82	73.8	90.2	1.0	66.4	5	118	1.3
TGL34-82A	77.9	86.1	1.0	70.1	5	113	1.3
TGL34-91	81.9	100	1.0	73.7	5	131	1.1
TGL34-91A	86.5	95.5	1.0	77.8	5	125	1.2
TGL34-100	90	110	1.0	81.0	5	144	1.0
TGL34-100A	95	105	1.0	85.5	5	137	1.1
TGL34-110	99	121	1.0	89.2	5	158	0.9
TGL34-110A	105	116	1.0	94.0	5	152	1.0
TGL34-120	108	132	1.0	97.2	5	173	0.9
TGL34-120A	114	126	1.0	102	5	165	0.9
TGL34-130	117	143	1.0	105	5	187	0.8
TGL34-130A	124	137	1.0	111	5	179	0.8
TGL34-150	135	165	1.0	121	5	215	0.7
TGL34-150A	143	158	1.0	128	5	207	0.7
TGL34-160	144	176	1.0	130	5	230	0.7
TGL34-160A	152	168	1.0	136	5	219	0.7
TGL34-170	153	187	1.0	138	5	244	0.6
TGL34-170A	162	179	1.0	145	5	234	0.6
TGL34-180	162	198	1.0	146	5	258	0.6
TGL34-180A	171	189	1.0	154	5	246	0.6
TGL34-200	180	220	1.0	162	5	287	0.5
TGL34-200A	190	210	1.0	171	5	274	0.5

Note : (1) For bidirectional use suffix "C" or "CA"



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Working Peak Reverse Voltage ⁽¹⁾	Breakdown Voltage @ I_T			Test Current	Max. Reverse Leakage Current	Max. Clamping Voltage at I_{PP}	Max. Reverse Peak Pulse Current ⁽³⁾
	V_{RWM}	V_{BR} @ I_T			I_T	I_R @ V_{RWM}	V_C	I_{PP}
	(V)	Min	Nom	Max.	(mA)	(μ A)	(V)	(mA)

SMF5.0A Series, 200W, Case Type: SOD-123FL



SMF5.0A	5.0	6.40	6.70	7.00	10	400	9.2	21.7
SMF6.0A	6.0	6.67	7.02	7.37	10	400	10.3	19.4
SMF6.5A	6.5	7.22	7.60	7.98	10	250	11.2	17.9
SMF7.0A	7.0	7.78	8.20	8.60	10	100	12.0	16.7
SMF7.5A	7.5	8.33	8.77	9.21	1.0	50	12.9	15.5
SMF8.0A	8.0	8.89	9.36	9.83	1.0	25	13.6	14.7
SMF8.5A	8.5	9.44	9.92	10.4	1.0	10	14.4	13.9
SMF9.0A	9.0	10.0	10.55	11.1	1.0	5.0	15.4	13.0
SMF10A	10	11.1	11.70	12.3	1.0	2.5	17.0	11.8
SMF11A	11	12.2	12.85	13.5	1.0	2.5	18.2	11.0
SMF12A	12	13.3	14.00	14.7	1.0	2.5	19.9	10.1
SMF13A	13	14.4	15.15	15.9	1.0	1.0	21.5	9.3
SMF14A	14	15.6	16.40	17.2	1.0	1.0	23.2	8.6
SMF15A	15	16.7	17.60	18.5	1.0	1.0	24.4	8.2
SMF16A	16	17.8	18.75	19.7	1.0	1.0	26.0	7.7
SMF17A	17	18.9	19.90	20.9	1.0	1.0	27.6	7.2
SMF18A	18	20.0	21.00	22.1	1.0	1.0	29.2	6.8
SMF20A	20	22.2	23.35	24.5	1.0	1.0	32.4	6.2
SMF22A	22	24.4	25.60	26.9	1.0	1.0	35.5	5.6
SMF24A	24	26.7	28.10	29.5	1.0	1.0	38.9	5.1
SMF26A	26	28.9	30.40	31.9	1.0	1.0	42.1	4.8
SMF28A	28	31.1	32.80	34.4	1.0	1.0	45.4	4.4
SMF30A	30	33.3	35.10	36.8	1.0	1.0	48.4	4.1
SMF33A	33	36.7	38.70	40.6	1.0	1.0	53.3	3.8
SMF36A	36	40.0	42.10	44.2	1.0	1.0	58.1	3.4
SMF40A	40	44.4	46.80	49.1	1.0	1.0	64.5	3.1
SMF43A	43	47.8	50.30	52.8	1.0	1.0	69.4	2.9
SMF45A	45	50.0	52.65	55.3	1.0	1.0	72.7	2.8
SMF48A	48	53.3	56.10	58.9	1.0	1.0	77.4	2.6
SMF51A	51	56.7	59.70	62.7	1.0	1.0	82.4	2.4
SMF54A	54	60.0	63.15	66.3	1.0	1.0	87.1	2.3
SMF58A	58	64.4	67.80	71.2	1.0	1.0	93.6	2.1
SMF60A	60	66.7	70.20	73.7	1.0	1.0	96.8	1.8
SMF64A	64	71.1	74.85	78.6	1.0	1.0	103	1.7
SMF70A	70	77.8	81.90	86.0	1.0	1.0	113	1.5
SMF75A	75	83.3	87.70	92.1	1.0	1.0	121	1.4
SMF78A	78	86.7	91.25	95.8	1.0	1.0	126	1.4
SMF85A	85	94.4	99.20	104	1.0	1.0	137	1.3
SMF90A	90	100	105.50	111	1.0	1.0	146	1.2
SMF100A	100	111	117.00	123	1.0	1.0	162	1.1
SMF110A	110	122	128.50	135	1.0	1.0	177	1.0
SMF120A	120	133	140.00	147	1.0	1.0	193	0.9
SMF130A	130	144	151.50	159	1.0	1.0	209	0.8
SMF150A	150	167	176.00	185	1.0	1.0	243	0.7
SMF160A	160	178	187.50	197	1.0	1.0	259	0.7
SMF170A	170	189	199.00	209	1.0	1.0	275	0.6

Note : (1) A transient suppressor is normally selected according to the Working Peak Reverse Voltage (V_{RWM}) which should be equal to or greater than the DC or continuous peak operating voltage level.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)		It	VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

BZW04 / STUB Series, 400W, Case Type: DO-41/SMA

BZW04P5V8	STUB06I	6.45	7.48	10	5.80	1000	38.0	10.5	0.057
BZW04-5V8	STUB56I	6.45	7.14	10	5.80	1000	38.0	10.5	0.057
BZW04P6V4	STUB07F	7.13	8.25	10	6.40	500	35.4	11.3	0.061
BZW04-6V4	STUB57F	7.13	7.88	10	6.40	500	35.4	11.3	0.061
BZW04P7V0	STUB08C	7.79	9.02	10	7.02	200	33.0	12.1	0.065
BZW04-7V0	STUB58C	7.79	8.61	10	7.02	200	33.0	12.1	0.065
BZW04P7V8	STUB09B	8.65	10.0	1.0	7.78	50	30.0	13.4	0.068
BZW04-7V8	STUB59B	8.65	9.55	1.0	7.78	50	30.0	13.4	0.068
BZW04P8V5	STUB010	9.50	11.0	1.0	8.55	10	27.6	14.5	0.073
BZW04-8V5	STUB510	9.50	10.5	1.0	8.55	10	27.6	14.5	0.073
BZW04P9V4	STUB011	10.5	12.1	1.0	9.40	5.0	25.7	15.6	0.075
BZW04-9V4	STUB511	10.5	11.6	1.0	9.40	5.0	25.7	15.6	0.075
BZW04P10	STUB012	11.4	13.2	1.0	10.2	5.0	24.0	16.7	0.078
BZW04-10	STUB512	11.4	12.6	1.0	10.2	5.0	24.0	16.7	0.078
BZW04P11	STUB013	12.4	14.3	1.0	11.1	5.0	22.0	18.2	0.081
BZW04-11	STUB513	12.4	13.7	1.0	11.1	5.0	22.0	18.2	0.081
BZW04P13	STUB015	14.3	16.5	1.0	12.8	5.0	19.0	21.2	0.084
BZW04-13	STUB515	14.3	15.8	1.0	12.8	5.0	19.0	21.2	0.084
BZW04P14	STUB016	15.2	17.6	1.0	13.6	5.0	17.8	22.5	0.086
BZW04-14	STUB516	15.2	16.8	1.0	13.6	5.0	17.8	22.5	0.086
BZW04P15	STUB018	17.1	19.8	1.0	15.3	5.0	16.0	25.2	0.088
BZW04-15	STUB518	17.1	18.9	1.0	15.3	5.0	16.0	25.2	0.088
BZW04P17	STUB020	19.0	22.0	1.0	17.1	5.0	14.5	27.7	0.090
BZW04-17	STUB520	19.0	21.0	1.0	17.1	5.0	14.5	27.7	0.090
BZW04P19	STUB022	20.9	24.2	1.0	18.8	5.0	13.0	30.6	0.092
BZW04-19	STUB522	20.9	23.1	1.0	18.8	5.0	13.0	30.6	0.092
BZW04P20	STUB024	22.8	26.4	1.0	20.5	5.0	12.0	33.2	0.094
BZW04-20	STUB524	22.8	25.2	1.0	20.5	5.0	12.0	33.2	0.094
BZW04P23	STUB027	25.7	29.7	1.0	23.1	5.0	10.7	37.5	0.096
BZW04-23	STUB527	25.7	28.4	1.0	23.1	5.0	10.7	37.5	0.096
BZW04P26	STUB030	28.5	33.0	1.0	25.6	5.0	9.6	41.5	0.097
BZW04-26	STUB530	28.5	31.5	1.0	25.6	5.0	9.6	41.5	0.097
BZW04P28	STUB033	31.4	36.3	1.0	28.2	5.0	8.8	45.7	0.098
BZW04-28	STUB533	31.4	34.7	1.0	28.2	5.0	8.8	45.7	0.098
BZW04P31	STUB036	34.2	39.6	1.0	30.8	5.0	8.0	49.9	0.099
BZW04-31	STUB536	34.2	37.8	1.0	30.8	5.0	8.0	49.9	0.099
BZW04P33	STUB039	37.1	42.9	1.0	33.3	5.0	7.4	53.9	0.100
BZW04-33	STUB539	37.1	41.0	1.0	33.3	5.0	7.4	53.9	0.100
BZW04P37	STUB043	40.9	47.3	1.0	36.8	5.0	6.7	59.3	0.101
BZW04-37	STUB543	40.9	45.2	1.0	36.8	5.0	6.7	59.3	0.101
BZW04P40	STUB047	44.7	51.7	1.0	40.2	5.0	6.2	64.8	0.101
BZW04-40	STUB547	44.7	49.4	1.0	40.2	5.0	6.2	64.8	0.101
BZW04P44	STUB051	48.5	56.1	1.0	43.6	5.0	5.7	70.1	0.102
BZW04-44	STUB551	48.5	53.6	1.0	43.6	5.0	5.7	70.1	0.102
BZW04P48	STUB056	53.2	61.6	1.0	47.8	5.0	5.2	77.0	0.103
BZW04-48	STUB556	53.2	58.8	1.0	47.8	5.0	5.2	77.0	0.103
BZW04P53	STUB062	58.9	68.2	1.0	53.0	5.0	4.7	85.0	0.104
BZW04-53	STUB562	58.9	65.1	1.0	53.0	5.0	4.7	85.0	0.104



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)		It	VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

BZW04 / STUB Series, 400W, Case Type: DO-41/SMA

BZW04P58	STUB068	64.6	74.8	1.0	58.1	5.0	4.3	92.0	0.104
BZW04-58	STUB568	64.6	71.4	1.0	58.1	5.0	4.3	92.0	0.104
BZW04P64	STUB075	71.3	82.5	1.0	64.1	5.0	3.9	103	0.105
BZW04-64	STUB575	71.3	78.8	1.0	64.1	5.0	3.9	103	0.105
BZW04P70	STUB082	77.9	90.2	1.0	70.1	5.0	3.5	113	0.105
BZW04-70	STUB582	77.9	86.1	1.0	70.1	5.0	3.5	113	0.105
BZW04P78	STUB091	86.5	100	1.0	77.8	5.0	3.2	125	0.106
BZW04-78	STUB591	86.5	95.5	1.0	77.8	5.0	3.2	125	0.106
BZW04P85	STUB0B0	95.0	110	1.0	85.5	5.0	2.9	137	0.106
BZW04-85	STUB5B0	95.0	105	1.0	85.5	5.0	2.9	137	0.106
BZW04P94	STUB0B1	105	121	1.0	94.0	5.0	2.6	152	0.107
BZW04-94	STUB5B1	105	116	1.0	94.0	5.0	2.6	152	0.107
BZW04P102	STUB0B2	114	132	1.0	102	5.0	2.4	165	0.107
BZW04-102	STUB5B2	114	126	1.0	102	5.0	2.4	165	0.107
BZW04P111	STUB0B3	124	143	1.0	111	5.0	2.2	179	0.107
BZW04-111	STUB5B3	124	137	1.0	111	5.0	2.2	179	0.107
BZW04P128	STUB0B5	143	165	1.0	128	5.0	2.0	207	0.108
BZW04-128	STUB5B5	143	158	1.0	128	5.0	2.0	207	0.108
BZW04P136	STUB0B6	152	176	1.0	136	5.0	1.8	219	0.108
BZW04-136	STUB5B6	152	168	1.0	136	5.0	1.8	219	0.108
BZW04P145	STUB0B7	161	187	1.0	145	5.0	1.7	234	0.108
BZW04-145	STUB5B7	161	179	1.0	145	5.0	1.7	234	0.108
BZW04P154	STUB0B8	171	198	1.0	154	5.0	1.6	246	0.108
BZW04-154	STUB5B8	171	189	1.0	154	5.0	1.6	246	0.108
BZW04P171	STUB0D0	190	220	1.0	171	5.0	1.5	274	0.108
BZW04-171	STUB5D0	190	210	1.0	171	5.0	1.5	274	0.108
BZW04P188	STUB0D2	209	242	1.0	188	5.0	1.4	301	0.108
BZW04-188	STUB5D2	209	231	1.0	188	5.0	1.4	301	0.108
BZW04P213	STUB0D5	237	275	1.0	213	5.0	1.3	344	0.110
BZW04-213	STUB5D5	237	263	1.0	213	5.0	1.3	344	0.110
BZW04P239	STUB0D8	266	308	1.0	239	5.0	1.3	384	0.110
BZW04-239	STUB5D8	266	294	1.0	239	5.0	1.3	384	0.110
BZW04P256	STUB0E0	285	330	1.0	256	5.0	1.2	414	0.110
BZW04-256	STUB5E0	285	315	1.0	256	5.0	1.2	414	0.110
BZW04P273	STUB0E2	304	352	1.0	273	5.0	1.2	438	0.110
BZW04-273	STUB5E2	304	336	1.0	273	5.0	1.2	438	0.110
BZW04P299	STUB0E5	332	385	1.0	299	5.0	0.9	482	0.110
BZW04-299	STUB5E5	332	368	1.0	299	5.0	0.9	482	0.110
BZW04P342	STUB0G0	380	440	1.0	342	5.0	0.9	548	0.110
BZW04-342	STUB5G0	380	420	1.0	342	5.0	0.9	548	0.110
BZW04P376	STUB0G4	418	484	1.0	376	5.0	0.8	603	0.110
BZW04-376	STUB5G4	418	462	1.0	376	5.0	0.8	603	0.110

Notes:

- (1) VBR measured after It applied for 300 μs, It = square wave pulse or equivalent
- (2) VF = 3.5 Vmax., IF = 25 A (6.8 V to 110 V)
VF = 5.0 Vmax., IF = 25 A (120 V to 400 V) per 1/2 square or equivalent sine wave
PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use "B" suffix (Axial Lead) / replace the third digit of type from "U" to "B" (SMD)
- (4) "ZW04" for Axial lead / "STU" or "STB" for SMD will be omitted on marking of the diode
- (5) For bidirectional types having VR of 10 V and under, the IR limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)		It	VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

P4KE / STUP Series, 400W, Case Type: DO-41/SMA



P4KE6.8	STUP06I	6.12	7.48	10	5.50	1000	38.0	10.8	0.057
P4KE6.8A	STUP56I	6.45	7.14	10	5.80	1000	40.0	10.5	0.057
P4KE7.5	STUP07F	6.75	8.25	10	6.05	500	36.0	11.7	0.061
P4KE7.5A	STUP57F	7.13	7.88	10	6.40	500	37.0	11.3	0.061
P4KE8.2	STUP08C	7.38	9.02	10	6.63	200	33.0	12.5	0.065
P4KE8.2A	STUP58C	7.79	8.61	10	7.02	200	35.0	12.1	0.065
P4KE9.1	STUP09B	8.19	10.0	1.0	7.37	50	30.0	13.8	0.068
P4KE9.1A	STUP59B	8.65	9.55	1.0	7.78	50	31.0	13.4	0.068
P4KE10	STUP010	9.00	11.0	1.0	8.10	10	28.0	15.0	0.073
P4KE10A	STUP510	9.50	10.5	1.0	8.55	10	29.0	14.5	0.073
P4KE11	STUP011	9.90	12.1	1.0	8.92	5.0	26.0	16.2	0.075
P4KE11A	STUP511	10.5	11.6	1.0	9.40	5.0	27.0	15.6	0.075
P4KE12	STUP012	10.8	13.2	1.0	9.72	5.0	24.0	17.3	0.078
P4KE12A	STUP512	11.4	12.6	1.0	10.2	5.0	25.0	16.7	0.078
P4KE13	STUP013	11.7	14.3	1.0	10.5	5.0	22.0	19.0	0.081
P4KE13A	STUP513	12.4	13.7	1.0	11.1	5.0	23.0	18.2	0.081
P4KE15	STUP015	13.5	16.5	1.0	12.1	5.0	19.0	22.0	0.084
P4KE15A	STUP515	14.3	15.8	1.0	12.8	5.0	20.0	21.2	0.084
P4KE16	STUP016	14.4	17.6	1.0	12.9	5.0	18.0	23.5	0.086
P4KE16A	STUP516	15.2	16.8	1.0	13.6	5.0	19.0	22.5	0.086
P4KE17	STUP017	15.3	18.7	1.0	13.7	5.0	17.0	25.0	0.087
P4KE17A	STUP517	16.2	17.9	1.0	14.5	5.0	18.0	24.0	0.087
P4KE18	STUP018	16.2	19.8	1.0	14.5	5.0	16.0	26.5	0.088
P4KE18A	STUP518	17.1	18.9	1.0	15.3	5.0	17.0	25.5	0.088
P4KE20	STUP020	18.0	22.0	1.0	16.2	5.0	14.0	29.1	0.090
P4KE20A	STUP520	19.0	21.0	1.0	17.1	5.0	15.0	27.7	0.090
P4KE22	STUP022	19.8	24.2	1.0	17.8	5.0	13.0	31.9	0.092
P4KE22A	STUP522	20.9	23.1	1.0	18.8	5.0	14.0	30.6	0.092
P4KE24	STUP024	21.6	26.4	1.0	19.4	5.0	12.0	34.7	0.094
P4KE24A	STUP524	22.8	25.2	1.0	20.5	5.0	13.0	33.2	0.094
P4KE27	STUP027	24.3	29.7	1.0	21.8	5.0	11.0	39.1	0.096
P4KE27A	STUP527	25.7	28.4	1.0	23.1	5.0	11.2	37.5	0.096
P4KE30	STUP030	27.0	33.0	1.0	24.3	5.0	10.0	43.5	0.097
P4KE30A	STUP530	28.5	31.5	1.0	25.6	5.0	10.0	41.4	0.097
P4KE33	STUP033	29.7	36.3	1.0	26.8	5.0	9.0	47.7	0.098
P4KE33A	STUP533	31.4	34.7	1.0	28.2	5.0	9.0	45.7	0.098
P4KE36	STUP036	32.4	39.6	1.0	29.1	5.0	8.0	52.0	0.099
P4KE36A	STUP536	34.2	37.8	1.0	30.8	5.0	8.4	49.9	0.099
P4KE39	STUP039	35.1	42.9	1.0	31.6	5.0	7.4	56.4	0.100
P4KE39A	STUP539	37.1	41.0	1.0	33.3	5.0	7.8	53.9	0.100
P4KE43	STUP043	38.7	47.3	1.0	34.8	5.0	6.8	61.9	0.101
P4KE43A	STUP543	40.9	45.2	1.0	36.8	5.0	7.1	59.3	0.101
P4KE47	STUP047	42.3	51.7	1.0	38.1	5.0	6.2	67.8	0.101
P4KE47A	STUP547	44.7	49.4	1.0	40.2	5.0	6.5	64.8	0.101
P4KE51	STUP051	45.9	56.1	1.0	41.3	5.0	5.7	73.5	0.102
P4KE51A	STUP551	48.5	53.6	1.0	43.6	5.0	6.0	70.1	0.102
P4KE56	STUP056	50.4	61.6	1.0	45.4	5.0	5.2	80.5	0.103
P4KE56A	STUP556	53.2	58.8	1.0	47.8	5.0	5.5	77.0	0.103



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)		It	VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

P4KE / STUP Series, 400W, Case Type: DO-41/SMA



P4KE62	STUP062	55.8	68.2	1.0	50.2	5.0	4.7	89.0	0.104
P4KE62A	STUP562	58.9	65.1	1.0	53.0	5.0	5.0	85.0	0.104
P4KE68	STUP068	61.2	74.8	1.0	55.1	5.0	4.3	98.0	0.104
P4KE68A	STUP568	64.6	71.4	1.0	58.1	5.0	4.6	92.0	0.104
P4KE75	STUP075	67.5	82.5	1.0	60.7	5.0	3.9	108	0.105
P4KE75A	STUP575	71.3	78.8	1.0	64.1	5.0	4.1	103	0.105
P4KE82	STUP082	73.8	90.2	1.0	66.4	5.0	3.6	118	0.105
P4KE82A	STUP582	77.9	86.1	1.0	70.1	5.0	3.7	113	0.105
P4KE91	STUP091	81.9	100	1.0	73.7	5.0	3.2	131	0.106
P4KE91A	STUP591	86.5	95.5	1.0	77.8	5.0	3.4	125	0.106
P4KE100	STUP0B0	90.0	110	1.0	81	5.0	2.9	144	0.106
P4KE100A	STUP5B0	95.0	105	1.0	85.5	5.0	3.1	137	0.106
P4KE110	STUP0B1	99.0	121	1.0	89.2	5.0	2.7	158	0.107
P4KE110A	STUP5B1	105	116	1.0	94.0	5.0	2.8	152	0.107
P4KE120	STUP0B2	108	132	1.0	97.2	5.0	2.4	173	0.107
P4KE120A	STUP5B2	114	126	1.0	102	5.0	2.5	165	0.107
P4KE130	STUP0B3	117	143	1.0	105	5.0	2.2	187	0.107
P4KE130A	STUP5B3	124	137	1.0	111	5.0	2.3	179	0.107
P4KE150	STUP0B5	135	165	1.0	121	5.0	2.0	215	0.108
P4KE150A	STUP5B5	143	158	1.0	128	5.0	2.0	207	0.108
P4KE160	STUP0B6	144	176	1.0	130	5.0	1.8	230	0.108
P4KE160A	STUP5B6	152	168	1.0	136	5.0	1.9	219	0.108
P4KE170	STUP0B7	153	187	1.0	138	5.0	1.7	244	0.108
P4KE170A	STUP5B7	162	179	1.0	145	5.0	1.8	234	0.108
P4KE180	STUP0B8	162	198	1.0	146	5.0	1.6	258	0.108
P4KE180A	STUP5B8	171	189	1.0	154	5.0	1.7	246	0.108
P4KE200	STUP0D0	180	220	1.0	162	5.0	1.5	287	0.108
P4KE200A	STUP5D0	190	210	1.0	171	5.0	1.53	274	0.108
P4KE220	STUP0D2	198	242	1.0	175	5.0	1.16	344	0.108
P4KE220A	STUP5D2	209	231	1.0	185	5.0	1.22	328	0.108
P4KE250	STUP0D5	225	275	1.0	202	5.0	1.11	360	0.110
P4KE250A	STUP5D5	237	263	1.0	214	5.0	1.16	344	0.110
P4KE300	STUP0E0	270	330	1.0	243	5.0	0.93	430	0.110
P4KE300A	STUP5E0	285	315	1.0	256	5.0	0.97	414	0.110
P4KE350	STUP0E5	315	385	1.0	284	5.0	0.79	504	0.110
P4KE350A	STUP5E5	332	368	1.0	300	5.0	0.83	482	0.110
P4KE400	STUP0G0	360	440	1.0	324	5.0	0.70	574	0.110
P4KE400A	STUP5G0	380	420	1.0	342	5.0	0.73	548	0.110
P4KE440	STUP0G4	396	484	1.0	356	5.0	0.95	631	0.110
P4KE440A	STUP5G4	418	462	1.0	376	5.0	1.00	602	0.110

Notes:

- (1) VBR measured after It applied for 300 μs, It = square wave pulse or equivalent
- (2) VF = 3.5 Vmax., IF = 25 A (6.8 V to 91 V)
VF = 5.0 Vmax., IF = 25 A (100 V to 400 V) per 1/2 square or equivalent sine wave
PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use "C" or "CA" suffix (Axial Lead) / replace the third letter of type from "U" to "B" (SMD)
- (4) "4KE" for Axial lead / "STU" or "STB" for SMD will be omitted on marking of the diode
- (5) For bidirectional types having VR of 10 V and under, the IR limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
	VBR (V)		It	VRWM	IR	IRSM	VRSM
	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
Unidirectional							(% / °C)

TGL41 Series, 400W, Case Type: MELF(Plastic)



TGL41-6.8	6.12	7.48	10	5.50	1000	37.0	10.8	0.060
TGL41-6.8A	6.45	7.14	10	5.80	1000	38.1	10.5	0.060
TGL41-7.5	6.75	8.25	10	6.05	500	34.2	11.7	0.064
TGL41-7.5A	7.13	7.88	10	6.40	500	35.4	11.3	0.064
TGL41-8.2	7.38	9.02	10	6.63	200	32.0	12.5	0.068
TGL41-8.2A	7.79	8.61	10	7.02	200	33.1	12.1	0.068
TGL41-9.1	8.19	10.0	1.0	7.37	50	29.0	13.8	0.071
TGL41-9.1A	8.65	9.55	1.0	7.78	50	29.9	13.4	0.071
TGL41-10	9.0	11.0	1.0	8.10	10	26.7	15.0	0.076
TGL41-10A	9.5	10.5	1.0	8.55	10	27.6	14.0	0.076
TGL41-11	9.9	12.1	1.0	8.92	5	24.7	16.2	0.078
TGL41-11A	10.5	11.6	1.0	9.40	5	25.6	15.6	0.078
TGL41-12	10.8	13.2	1.0	9.72	5	23.1	17.3	0.081
TGL41-12A	11.4	12.6	1.0	10.2	5	24.0	16.7	0.081
TGL41-13	11.7	14.3	1.0	10.5	5	21.1	19.0	0.084
TGL41-13A	12.4	13.7	1.0	11.1	5	22.0	18.2	0.084
TGL41-15	13.5	16.5	1.0	12.1	5	18.2	22.0	0.087
TGL41-15A	14.3	15.8	1.0	12.8	5	18.9	21.2	0.087
TGL41-16	14.4	17.6	1.0	12.9	5	17.0	23.5	0.089
TGL41-16A	15.2	16.8	1.0	13.6	5	17.8	22.5	0.089
TGL41-18	16.2	19.8	1.0	14.5	5	15.1	26.5	0.091
TGL41-18A	17.1	18.9	1.0	15.3	5	15.9	25.2	0.091
TGL41-20	18.0	22.0	1.0	16.2	5	13.7	29.1	0.093
TGL41-20A	19.0	21.0	1.0	17.1	5	14.4	27.7	0.093
TGL41-22	19.8	24.2	1.0	17.8	5	12.5	31.9	0.095
TGL41-22A	20.9	23.1	1.0	18.8	5	13.1	30.6	0.095
TGL41-24	21.6	26.4	1.0	19.4	5	11.5	34.7	0.097
TGL41-24A	22.8	25.2	1.0	20.5	5	12.0	33.2	0.097
TGL41-27	24.3	29.7	1.0	21.8	5	10.2	39.1	0.099
TGL41-27A	25.7	28.4	1.0	23.1	5	10.7	37.5	0.099
TGL41-30	27.0	30.0	1.0	24.3	5	9.2	43.5	0.100
TGL41-30A	28.5	31.5	1.0	25.6	5	9.7	41.4	0.100
TGL41-33	29.7	36.3	1.0	26.8	5	8.4	47.7	0.101
TGL41-33A	31.4	34.7	1.0	28.2	5	8.8	45.7	0.101
TGL41-36	32.4	39.6	1.0	29.1	5	7.7	52.0	0.102
TGL41-36A	34.2	37.8	1.0	30.8	5	8.0	49.9	0.102
TGL41-39	35.1	42.9	1.0	31.6	5	7.1	56.4	0.103
TGL41-39A	37.1	41.0	1.0	33.3	5	7.4	53.9	0.103
TGL41-43	38.7	47.3	1.0	34.8	5	6.5	61.9	0.104
TGL41-43A	40.9	45.2	1.0	36.8	5	6.7	59.3	0.104



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR	
	VBR (V)		It	VRWM	IR	IRSM	VRSM	
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

TGL41 Series, 400W, Case Type: MELF(Plastic)



TGL41-47	42.3	51.7	1.0	38.1	5	5.9	67.8	0.104
TGL41-47A	44.7	49.4	1.0	40.2	5	6.2	64.8	0.104
TGL41-51	45.9	56.1	1.0	41.3	5	5.4	73.5	0.105
TGL41-51A	48.5	53.6	1.0	43.6	5	5.7	70.1	0.105
TGL41-56	50.4	61.6	1.0	45.4	5	5.0	80.5	0.106
TGL41-564A	53.2	58.8	1.0	47.8	5	5.2	77.0	0.106
TGL41-62	55.8	68.8	1.0	50.2	5	4.5	89.0	0.107
TGL41-62A	58.9	65.1	1.0	53.0	5	4.7	85.0	0.107
TGL41-68	61.2	74.8	1.0	55.1	5	4.1	98.0	0.107
TGL41-68A	64.6	71.4	1.0	58.1	5	4.3	92.0	0.107
TGL41-75	67.5	82.5	1.0	60.7	5	3.7	108	0.108
TGL41-75A	71.3	78.8	1.0	64.1	5	3.9	103	0.108
TGL41-82	73.8	90.2	1.0	66.4	5	3.4	118	0.108
TGL41-82A	77.9	86.1	1.0	70.1	5	3.5	113	0.108
TGL41-91	81.9	100	1.0	73.7	5	3.1	131	0.109
TGL41-91A	86.5	95.5	1.0	77.8	5	3.2	125	0.109
TGL41-100	90	110	1.0	81.0	5	1.39	144	0.109
TGL41-100A	95	105	1.0	85.5	5	1.46	137	0.109
TGL41-110	99	121	1.0	89.2	5	1.27	158	0.110
TGL41-110A	105	116	1.0	94.0	5	1.32	152	0.110
TGL41-120	108	132	1.0	97.2	5	1.16	173	0.110
TGL41-120A	114	126	1.0	102	5	1.21	165	0.110
TGL41-130	117	143	1.0	105	5	1.07	187	0.110
TGL41-130A	124	137	1.0	111	5	1.12	179	0.110
TGL41-150	135	165	1.0	121	5	0.93	215	0.111
TGL41-150A	143	158	1.0	128	5	0.97	207	0.111
TGL41-160	144	176	1.0	130	5	0.87	230	0.111
TGL41-160A	152	168	1.0	136	5	0.91	219	0.111
TGL41-170	153	187	1.0	138	5	0.82	244	0.111
TGL41-170A	162	179	1.0	145	5	0.85	234	0.111
TGL41-180	162	198	1.0	146	5	0.78	258	0.111
TGL41-180A	171	189	1.0	154	5	0.81	246	0.111
TGL41-200	180	220	1.0	162	5	0.70	287	0.111
TGL41-200A	190	210	1.0	171	5	0.73	274	0.111

Note :

- (1) Pulse test: $t_p \leq 50$ ms
- (2) For bidirectional use "C" or "CA" suffix



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_t^{(1)}$		Working Peak Reverse Voltage	Max. Reverse Leakage @ V_{RWM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}	
	V_{BR} (V)	I_t	V_{RWM}	$I_R^{(3)}$	I_{PPM}	V_C	
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)

SMAJ Series, 400W, Case Type: SMA



SMAJ5.0	6.40	7.82	10	5.0	800	41.7	9.6
SMAJ5.0A ⁽⁴⁾	6.40	7.07	10	5.0	800	43.5	9.2
SMAJ6.0	6.67	8.15	10	6.0	800	35.1	11.4
SMAJ6.0A	6.67	7.37	10	6.0	800	38.8	10.3
SMAJ6.5	7.22	8.82	10	6.5	500	32.5	12.3
SMAJ6.5A	7.22	7.98	10	6.5	500	35.7	11.2
SMAJ7.0	7.78	9.51	10	7.0	200	30.1	13.3
SMAJ7.0A	7.78	8.6	10	7.0	200	33.3	12.0
SMAJ7.5	8.33	10.2	1.0	7.5	100	28.0	14.3
SMAJ7.5A	8.33	9.21	1.0	7.5	100	31.0	12.9
SMAJ8.0	8.89	10.9	1.0	8.0	50	26.7	15.0
SMAJ8.0A	8.89	9.83	1.0	8.0	50	29.4	13.6
SMAJ8.5	9.44	11.5	1.0	8.5	10	25.2	15.9
SMAJ8.5A	9.44	10.4	1.0	8.5	10	27.8	14.4
SMAJ9.0	10.0	12.2	1.0	9.0	5.0	23.7	16.9
SMAJ9.0A	10.0	11.1	1.0	9.0	5.0	26.0	15.4
SMAJ10	11.1	13.6	1.0	10	1.0	21.2	18.8
SMAJ10A	11.1	12.3	1.0	10	1.0	23.5	17.0
SMAJ11	12.2	14.9	1.0	11	1.0	19.9	20.1
SMAJ11A	12.2	13.5	1.0	11	1.0	22.0	18.2
SMAJ12	13.3	16.3	1.0	12	1.0	18.2	22.0
SMAJ12A	13.3	14.7	1.0	12	1.0	20.1	19.9
SMAJ13	14.4	17.6	1.0	13	1.0	16.8	23.8
SMAJ13A	14.4	15.9	1.0	13	1.0	18.6	21.5
SMAJ14	15.6	19.1	1.0	14	1.0	15.5	25.8
SMAJ14A	15.6	17.2	1.0	14	1.0	17.2	23.2
SMAJ15	16.7	20.4	1.0	15	1.0	14.8	26.9
SMAJ15A	16.7	18.5	1.0	15	1.0	16.4	24.4
SMAJ16	17.8	21.8	1.0	16	1.0	13.9	28.8
SMAJ16A	17.8	19.7	1.0	16	1.0	15.4	26.0
SMAJ17	18.9	23.1	1.0	17	1.0	13.1	30.5
SMAJ17A	18.9	20.9	1.0	17	1.0	14.5	27.6
SMAJ18	20.0	24.4	1.0	18	1.0	12.4	32.2
SMAJ18A	20.0	22.1	1.0	18	1.0	13.7	29.2
SMAJ20	22.2	27.1	1.0	20	1.0	11.2	35.8
SMAJ20A	22.2	24.5	1.0	20	1.0	12.3	32.4
SMAJ22	24.4	29.8	1.0	22	1.0	10.2	39.4
SMAJ22A	24.4	26.9	1.0	22	1.0	11.3	35.5
SMAJ24	26.7	32.6	1.0	24	1.0	9.3	43.0
SMAJ24A	26.7	29.5	1.0	24	1.0	10.3	38.9
SMAJ26	28.9	35.3	1.0	26	1.0	8.6	46.6
SMAJ26A	28.9	31.9	1.0	26	1.0	9.5	42.1
SMAJ28	31.1	38.0	1.0	28	1.0	8.0	50.0
SMAJ28A	31.1	34.4	1.0	28	1.0	8.8	45.4
SMAJ30	33.3	40.7	1.0	30	1.0	7.5	53.5
SMAJ30A	33.3	36.8	1.0	30	1.0	8.3	48.4
SMAJ33	36.7	44.9	1.0	33	1.0	6.8	59.0
SMAJ33A	36.7	40.6	1.0	33	1.0	7.5	53.3
SMAJ36	40.0	48.9	1.0	36	1.0	6.2	64.3
SMAJ36A	40.0	44.2	1.0	36	1.0	6.9	58.1



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_t^{(1)}$		Working Peak Reverse Voltage	Max. Reverse Leakage @ V_{RWM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)	I_t	V_{RWM}	$I_R^{(3)}$	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(V)

SMAJ Series, 400W, Case Type: SMA



SMAJ40	44.4	54.3	1.0	40	1.0	5.6	71.4
SMAJ40A	44.4	49.1	1.0	40	1.0	6.2	64.5
SMAJ43	47.8	58.4	1.0	43	1.0	5.2	76.7
SMAJ43A	47.8	52.8	1.0	43	1.0	5.7	69.4
SMAJ45	50.0	61.1	1.0	45	1.0	5.0	80.3
SMAJ45A	50.0	55.3	1.0	45	1.0	5.5	72.7
SMAJ48	53.3	65.1	1.0	48	1.0	4.7	85.5
SMAJ48A	53.3	58.9	1.0	48	1.0	5.2	77.4
SMAJ51	56.7	69.3	1.0	51	1.0	4.4	91.1
SMAJ51A	56.7	62.7	1.0	51	1.0	4.9	82.4
SMAJ54	60.0	73.3	1.0	54	1.0	4.2	96.3
SMAJ54A	60.0	66.3	1.0	54	1.0	4.6	87.1
SMAJ58	64.4	78.7	1.0	58	1.0	3.9	103
SMAJ58A	64.4	71.2	1.0	58	1.0	4.3	93.6
SMAJ60	66.7	81.5	1.0	60	1.0	3.7	107
SMAJ60A	66.7	73.7	1.0	60	1.0	4.1	96.8
SMAJ64	71.1	86.4	1.0	64	1.0	3.5	114
SMAJ64A	71.1	78.6	1.0	64	1.0	3.9	103
SMAJ70	77.8	95.1	1.0	70	1.0	3.2	125
SMAJ70A	77.8	86	1.0	70	1.0	3.5	113
SMAJ75	83.3	102	1.0	75	1.0	3.0	134
SMAJ75A	83.3	92.1	1.0	75	1.0	3.3	121
SMAJ78	86.7	106	1.0	78	1.0	2.9	139
SMAJ78A	86.7	95.8	1.0	78	1.0	3.2	126
SMAJ85	94.4	115	1.0	85	1.0	2.0	151
SMAJ85A	94.4	104	1.0	85	1.0	2.2	137
SMAJ90	100	122	1.0	90	1.0	1.9	160
SMAJ90A	100	111	1.0	90	1.0	2.1	146
SMAJ100	111	136	1.0	100	1.0	1.7	179
SMAJ100A	111	123	1.0	100	1.0	1.9	162
SMAJ110	122	149	1.0	110	1.0	1.5	196
SMAJ110A	122	135	1.0	110	1.0	1.7	177
SMAJ120	133	163	1.0	120	1.0	1.4	214
SMAJ120A	133	147	1.0	120	1.0	1.6	193
SMAJ130	144	176	1.0	130	1.0	1.3	231
SMAJ130A	144	159	1.0	130	1.0	1.4	209
SMAJ150	167	204	1.0	150	1.0	1.1	268
SMAJ150A	167	185	1.0	150	1.0	1.2	243
SMAJ160	178	218	1.0	160	1.0	1.0	287
SMAJ160A	178	197	1.0	160	1.0	1.2	259
SMAJ170	189	231	1.0	170	1.0	0.99	304
SMAJ170A	189	209	1.0	170	1.0	1.09	275
SMAJ188	209	255	1.0	188	1.0	0.90	344
SMAJ188A	209	231	1.0	188	1.0	0.91	328

Notes :

- (1) Pulse test : $t_p \leq 50ms$
- (2) For bidirectional use "C" or "CA" suffix
- (3) For bi-directional types having V_R of 10 V and less , the I_R limit is doubled
- (4) For the bidirectional SMAJ5.0CA, the maximum V_{BR} is 7.25V
- (5) "SMAJ" will be omitted on marking of the diode



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Voltage Temperature Variation of VBR
Unidirectional		VBR (V)		VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)

SA / STUS Series, 500W, Case Type: DO-41/SMA

SA5.0	STUS06H	6.40	7.3	10	5.0	600	52.0	9.6	5.0
SA5.0A	STUS56H	6.40	7.0	10	5.0	600	54.3	9.2	5.0
SA6.0	STUS07A	6.67	8.15	10	6.0	600	43.9	11.4	5.0
SA6.0A	STUS57A	6.67	7.37	10	6.0	600	48.5	10.3	5.0
SA6.5	STUS07G	7.22	8.82	10	6.5	400	40.7	12.3	5.0
SA6.5A	STUS57G	7.22	7.98	10	6.5	400	44.7	11.2	5.0
SA7.0	STUS08C	7.78	9.51	10	7.0	150	37.8	13.3	6.0
SA7.0A	STUS58C	7.78	8.60	10	7.0	150	41.7	12.0	6.0
SA7.5	STUS08I	8.33	10.2	1.0	7.5	50	35.0	14.3	7.0
SA7.5A	STUS58I	8.33	9.21	1.0	7.5	50	38.8	12.9	7.0
SA8.0	STUS09B	8.89	10.9	1.0	8.0	25	33.3	15.0	7.0
SA8.0A	STUS59B	8.89	9.83	1.0	8.0	25	36.7	13.6	7.0
SA8.5	STUS010	9.44	11.5	1.0	8.5	5.0	31.4	15.9	8.0
SA8.5A	STUS510	9.44	10.4	1.0	8.5	5.0	34.7	14.4	8.0
SA9.0	STUS011	10.0	12.2	1.0	9.0	1.0	29.5	16.9	9.0
SA9.0A	STUS511	10.0	11.1	1.0	9.0	1.0	32.5	15.4	9.0
SA10	STUS012	11.1	13.6	1.0	10.0	1.0	26.6	18.8	10.0
SA10A	STUS512	11.1	12.3	1.0	10.0	1.0	29.4	17.0	10.0
SA11	STUS013	12.2	14.9	1.0	11.0	1.0	24.9	20.1	11.0
SA11A	STUS513	12.2	13.5	1.0	11.0	1.0	27.4	18.2	11.0
SA12	STUS014	13.3	16.3	1.0	12.0	1.0	22.7	22.0	12.0
SA12A	STUS514	13.3	14.7	1.0	12.0	1.0	25.1	19.9	12.0
SA13	STUS015	14.4	17.6	1.0	13.0	1.0	21	23.8	13.0
SA13A	STUS515	14.4	15.9	1.0	13.0	1.0	23.2	21.5	13.0
SA14	STUS016	15.6	19.1	1.0	14.0	1.0	19.4	25.8	14.0
SA14A	STUS516	15.6	17.2	1.0	14.0	1.0	21.5	23.2	14.0
SA15	STUS018	16.7	20.4	1.0	15.0	1.0	18.8	26.9	16.0
SA15A	STUS518	16.7	18.5	1.0	15.0	1.0	20.6	24.4	16.0
SA16	STUS019	17.8	21.8	1.0	16.0	1.0	17.6	28.8	19.0
SA16A	STUS519	17.8	19.7	1.0	16.0	1.0	19.2	26.0	17.0
SA17	STUS020	18.9	23.1	1.0	17.0	1.0	16.4	30.5	20.0
SA17A	STUS520	18.9	20.9	1.0	17.0	1.0	18.1	27.6	19.0
SA18	STUS021	20.0	24.4	1.0	18.0	1.0	15.5	32.2	21.0
SA18A	STUS521	20.0	22.1	1.0	18.0	1.0	17.2	29.2	20.0
SA20	STUS023	22.2	27.1	1.0	20.0	1.0	13.9	35.8	25.0
SA20A	STUS523	22.2	24.5	1.0	20.0	1.0	15.4	32.4	23.0
SA22	STUS026	24.4	29.8	1.0	22.0	1.0	12.7	39.4	28.0
SA22A	STUS526	24.4	26.9	1.0	22.0	1.0	14.1	35.5	25.0
SA24	STUS028	26.7	32.6	1.0	24.0	1.0	11.6	43.0	31.0
SA24A	STUS528	26.7	29.5	1.0	24.0	1.0	12.8	38.9	28.0
SA26	STUS030	28.9	35.3	1.0	26.0	1.0	10.7	46.6	31.0
SA26A	STUS530	28.9	31.9	1.0	26.0	1.0	11.9	42.1	30.0
SA28	STUS033	31.1	38.0	1.0	28.0	1.0	9.9	50.0	35.0
SA28A	STUS533	31.1	34.4	1.0	28.0	1.0	11	45.4	31.0
SA30	STUS035	33.3	40.7	1.0	30.0	1.0	9.3	53.5	39.0
SA30A	STUS535	33.3	36.8	1.0	30.0	1.0	10.3	48.4	36.0
SA33	STUS039	36.7	44.9	1.0	33.0	1.0	8.5	59.0	42.0
SA33A	STUS539	36.7	40.6	1.0	33.0	1.0	9.4	53.3	39.0
SA36	STUS042	40.0	48.9	1.0	36.0	1.0	7.8	64.3	46.0
SA36A	STUS542	40.0	44.2	1.0	36.0	1.0	8.6	58.1	41.0



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Voltage Temperature Variation of V_{BR}
Unidirectional		V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)

SA / STUS Series, 500W, Case Type: DO-41/SMA

SA40	STUS047	44.4	54.3	1.0	40.0	1.0	7.0	71.4	51.0
SA40A	STUS547	44.4	49.1	1.0	40.0	1.0	7.8	64.5	46.0
SA43	STUS050	47.8	58.4	1.0	43.0	1.0	6.5	76.7	55.0
SA43A	STUS550	47.8	52.8	1.0	43.0	1.0	7.2	69.4	50.0
SA45	STUS053	50.0	61.1	1.0	45.0	1.0	6.2	80.3	58.0
SA45A	STUS553	50.0	55.3	1.0	45.0	1.0	6.9	72.7	52.0
SA48	STUS056	53.3	65.1	1.0	48.0	1.0	5.8	85.5	63.0
SA48A	STUS556	53.3	58.9	1.0	48.0	1.0	6.5	77.4	56.0
SA51	STUS060	56.7	69.3	1.0	51.0	1.0	5.5	91.1	66.0
SA51A	STUS560	56.7	62.7	1.0	51.0	1.0	6.1	82.4	61.0
SA54	STUS063	60.0	73.3	1.0	54.0	1.0	5.2	96.3	71.0
SA54A	STUS563	60.0	66.3	1.0	54.0	1.0	5.7	87.1	65.0
SA58	STUS068	64.4	78.7	1.0	58.0	1.0	4.9	103	78.0
SA58A	STUS568	64.4	71.2	1.0	58.0	1.0	5.3	93.6	70.0
SA60	STUS071	66.7	81.5	1.0	60.0	1.0	4.7	107	80.0
SA60A	STUS571	66.7	73.7	1.0	60.0	1.0	5.2	96.8	71.0
SA64	STUS075	71.1	86.9	1.0	64.0	1.0	4.4	114	86.0
SA64A	STUS575	71.1	78.6	1.0	64.0	1.0	4.9	103	76.0
SA70	STUS082	77.8	95.1	1.0	70.0	1.0	4.0	125	94.0
SA70A	STUS582	77.8	86.0	1.0	70.0	1.0	4.4	113	85.0
SA75	STUS088	83.3	102	1.0	75.0	1.0	3.7	134	101
SA75A	STUS588	83.3	92.1	1.0	75.0	1.0	4.1	121	91.0
SA78	STUS091	86.7	106	1.0	78.0	1.0	3.6	139	105
SA78A	STUS591	86.7	95.8	1.0	78.0	1.0	4.0	126	95.0
SA85	STUS099	94.4	115	1.0	85.0	1.0	3.3	151	114
SA85A	STUS599	94.4	104	1.0	85.0	1.0	3.6	137	103
SA90	STUS0B1	100	122	1.0	90.0	1.0	3.1	160	121
SA90A	STUS5B1	100	111	1.0	90.0	1.0	3.4	146	110
SA100	STUS0B2	111	136	1.0	100	1.0	2.8	179	135
SA100A	STUS5B2	111	123	1.0	100	1.0	3.1	162	123
SA110	STUS0B3	122	149	1.0	110	1.0	2.6	196	148
SA110A	STUS5B3	122	135	1.0	110	1.0	2.8	177	133
SA120	STUS0B4	133	163	1.0	120	1.0	2.3	214	162
SA120A	STUS5B4	133	147	1.0	120	1.0	2.0	193	146
SA130	STUS0B5	144	176	1.0	130	1.0	2.2	231	175
SA130A	STUS5B5	144	159	1.0	130	1.0	2.4	209	158
SA150	STUS0B8	167	204	1.0	150	1.0	1.9	268	203
SA150A	STUS5B8	167	185	1.0	150	1.0	2.1	243	184
SA160	STUS0B9	178	218	1.0	160	1.0	1.7	287	217
SA160A	STUS5B9	178	197	1.0	160	1.0	1.9	259	196
SA170	STUS0D0	189	231	1.0	170	1.0	1.6	304	230
SA170A	STUS5D0	189	209	1.0	170	1.0	1.8	275	208

Notes:

- (1) V_{BR} measured after I_t applied for 300 μs , I_t = square wave pulse or equivalent
- (2) V_F = 3.5 V_{max} , I_F = 35 A (6.8 V to 91 V)
 V_F = 5.0 V_{max} , I_F = 35 A (150 V to 200 V) per 1/2 square or equivalent sine wave
PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "C" or "CA" (Axial Lead) / replace the third digit of type from "U" to "B" (SMD)
- (4) "STU" or "STB" will be omitted on marking of the diode.
- (5) For bidirectional types having V_R of 10 V and under, the I_R limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Peak pulse Current	Maximum Clamping Voltage @ IRSM
	VBR (V)	It	VRWM	IR	I _{PP}	VRSM
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)
						(V)

BZW06 Series, 600W, Case Type: DO-15



BZW06P5V8	6.45	7.48	10	5.80	1000	57	10.5
BZW06-5V8	6.45	7.14	10	5.80	1000	57	10.5
BZW06P6V4	7.13	7.25	10	6.40	500	53	11.3
BZW06-6V4	7.13	7.88	10	6.40	500	53	11.3
BZW06P7V0	7.79	9.02	10	7.02	200	50	12.1
BZW06-7V0	7.79	8.61	10	7.02	200	50	12.1
BZW06P7V8	8.65	10.0	1.0	7.78	50	45	13.4
BZW06-7V8	8.65	9.55	1.0	7.78	50	45	13.4
BZW06P8V5	9.50	11.0	1.0	8.55	10	41	14.5
BZW06-8V5	9.50	10.5	1.0	8.55	10	41	14.5
BZW06P9V4	10.5	12.1	1.0	9.40	5.0	38	15.6
BZW06-9V4	10.5	11.6	1.0	9.40	5.0	38	15.6
BZW06P10	11.4	13.2	1.0	10.2	5.0	36	16.7
BZW06-10	11.4	12.6	1.0	10.2	5.0	36	16.7
BZW06P11	12.4	14.3	1.0	11.1	5.0	33	18.2
BZW06-11	12.4	13.7	1.0	11.1	5.0	33	18.2
BZW06P13	14.3	16.5	1.0	12.8	5.0	28	21.2
BZW06-13	14.3	15.8	1.0	12.8	5.0	28	21.2
BZW06P14	15.2	17.6	1.0	13.6	5.0	27	22.5
BZW06-14	15.2	16.8	1.0	13.6	5.0	27	22.5
BZW06P15	17.1	19.8	1.0	15.3	1.0	24	25.2
BZW06-15	17.1	18.9	1.0	15.3	1.0	24	25.2
BZW06P17	19.0	22.0	1.0	17.1	1.0	22	27.2
BZW06-17	19.0	21.0	1.0	17.1	1.0	22	27.2
BZW06P19	20.9	24.2	1.0	18.8	1.0	20	30.6
BZW06-19	20.9	23.1	1.0	18.8	1.0	20	30.6
BZW06P20	22.8	26.4	1.0	20.5	1.0	18	33.2
BZW06-20	22.8	25.2	1.0	20.5	1.0	18	33.2
BZW06P23	25.7	29.7	1.0	23.1	1.0	16	37.5
BZW06-23	25.7	28.4	1.0	23.1	1.0	16	37.5
BZW06P26	28.5	33.0	1.0	25.6	1.0	14.5	41.5
BZW06-26	28.5	31.5	1.0	25.6	1.0	14.5	41.5
BZW06P28	31.4	36.3	1.0	28.2	1.0	13.1	45.7
BZW06-28	31.4	34.7	1.0	28.2	1.0	13.1	45.7
BZW06P31	34.2	39.6	1.0	30.8	1.0	12.0	49.9
BZW06-31	34.2	37.8	1.0	30.8	1.0	12.0	49.9
BZW06P33	37.1	42.9	1.0	33.3	1.0	11.1	53.9
BZW06-33	37.1	41.0	1.0	33.3	1.0	11.1	53.9
BZW06P37	40.9	47.3	1.0	36.8	1.0	10.1	59.3
BZW06-37	40.9	45.2	1.0	36.8	1.0	10.1	59.3
BZW06P40	44.7	51.7	1.0	40.2	1.0	9.3	64.8
BZW06-40	44.7	49.4	1.0	40.2	1.0	9.3	64.8
BZW06P44	48.5	56.1	1.0	43.6	1.0	8.6	70.1
BZW06-44	48.5	53.6	1.0	43.6	1.0	8.6	70.1
BZW06P48	53.2	61.6	1.0	47.8	1.0	7.8	77
BZW06-48	53.2	58.8	1.0	47.8	1.0	7.8	77
BZW06P53	58.9	68.2	1.0	53	1.0	7.1	85
BZW06-53	58.9	65.1	1.0	53	1.0	7.1	85



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Peak pulse Current	Maximum Clamping Voltage @ IRSM	
	VBR (V)	It	VRWM	IR	Ipp	VRSM	
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)

BZW06 Series, 600W, Case Type: DO-15



BZW06P58	64.6	74.8	1.0	58.1	1.0	6.5	92
BZW06-58	64.6	71.4	1.0	58.1	1.0	6.5	92
BZW06P64	71.3	82.5	1.0	64.1	1.0	5.8	103
BZW06-64	71.3	78.8	1.0	64.1	1.0	5.8	103
BZW06P70	77.9	90.2	1.0	70.1	1.0	5.3	113
BZW06-70	77.9	86.1	1.0	70.1	1.0	5.3	113
BZW06P78	86.5	100	1.0	77.8	1.0	4.8	125
BZW06-78	86.5	95.5	1.0	77.8	1.0	4.8	125
BZW06P85	95	110	1.0	85.8	1.0	4.4	137
BZW06-85	95	105	1.0	85.8	1.0	4.4	137
BZW06P94	105	121	1.0	94	1.0	3.9	152
BZW06-94	105	116	1.0	94	1.0	3.9	152
BZW06P102	114	132	1.0	102	1.0	3.6	165
BZW06-102	114	126	1.0	102	1.0	3.6	165
BZW06P111	124	143	1.0	111	1.0	3.4	179
BZW06-111	124	137	1.0	111	1.0	3.4	179
BZW06P128	143	165	1.0	128	1.0	2.9	207
BZW06-128	143	158	1.0	128	1.0	2.9	207
BZW06P136	152	176	1.0	136	1.0	2.7	219
BZW06-136	152	168	1.0	136	1.0	2.7	219
BZW06P145	161	187	1.0	145	1.0	2.6	234
BZW06-145	161	179	1.0	145	1.0	2.6	234
BZW06P154	171	198	1.0	154	1.0	2.4	246
BZW06-154	171	189	1.0	154	1.0	2.4	246
BZW06P171	190	220	1.0	171	1.0	2.2	274
BZW06-171	190	210	1.0	171	1.0	2.2	274
BZW06P188	209	242	1.0	188	1.0	2.0	301
BZW06-188	209	231	1.0	188	1.0	2.0	301
BZW06P213	237	275	1.0	213	1.0	1.8	344
BZW06-213	237	263	1.0	213	1.0	1.8	344
BZW06P239	266	308	1.0	239	1.0	1.7	384
BZW06-239	266	294	1.0	239	1.0	1.7	384
BZW06P256	285	330	1.0	256	1.0	1.6	414
BZW06-256	285	315	1.0	256	1.0	1.6	414
BZW06P273	304	352	1.0	273	1.0	1.6	436
BZW06-273	304	336	1.0	273	1.0	1.6	436
BZW06P299	332	285	1.0	299	1.0	1.6	482
BZW06-299	332	368	1.0	299	1.0	1.6	482
BZW06P342	380	440	1.0	342	1.0	1.3	548
BZW06-342	380	420	1.0	342	1.0	1.3	548
BZW06P376	418	484	1.0	376	1.0	1.3	603
BZW06-376	418	462	1.0	376	1.0	1.3	603

Notes:

- (1) Pulse test : tp < 50 ms
- (2) For Bidirectional use suffix "B" (Axial Lead)
- (3) For bidirectional types having VR of 10 V and under, the IR limit is doubled
- (4) "ZW06" will be omitted on marking of the diode.
- (5) For case type D2 (Axial Lead) , we can support until the end of 2008.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
Unidirectional		V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)
								(% / °C)

P6KE/STU6 Series, 600W, Case Type: DO-15/SMB



P6KE6.8	STU606I	6.12	7.48	10	5.50	1000	55.5	10.8	0.057
P6KE6.8A	STU656I	6.45	7.14	10	5.80	1000	57.0	10.5	0.057
P6KE7.5	STU607F	6.75	8.25	10	6.05	500	51.0	11.7	0.061
P6KE7.5A	STU657F	7.13	7.88	10	6.40	500	53.0	11.3	0.061
P6KE8.2	STU608C	7.38	9.02	10	6.63	200	48.0	12.5	0.065
P6KE8.2A	STU658C	7.79	8.61	10	7.02	200	50.0	12.1	0.065
P6KE9.1	STU609B	8.19	10.0	1.0	7.37	50	44.0	13.8	0.068
P6KE9.1A	STU659B	8.65	9.55	1.0	7.78	50	45.0	13.4	0.068
P6KE10	STU6010	9.00	11.0	1.0	8.10	10	40.0	15.0	0.073
P6KE10A	STU6510	9.50	10.5	1.0	8.55	10	41.0	14.5	0.073
P6KE11	STU6011	9.90	12.1	1.0	8.92	5.0	37.0	16.2	0.075
P6KE11A	STU6511	10.5	11.6	1.0	9.40	5.0	38.0	15.6	0.075
P6KE12	STU6012	10.8	13.2	1.0	9.72	5.0	35.0	17.3	0.078
P6KE12A	STU6512	11.4	12.6	1.0	10.2	5.0	36.0	16.7	0.078
P6KE13	STU6013	11.7	14.3	1.0	10.5	5.0	32.0	19.0	0.081
P6KE13A	STU6513	12.4	13.7	1.0	11.1	5.0	33.0	18.2	0.081
P6KE15	STU6015	13.5	16.3	1.0	12.1	5.0	27.0	22.0	0.084
P6KE15A	STU6515	14.3	15.8	1.0	12.8	5.0	28.0	21.2	0.084
P6KE16	STU6016	14.4	17.6	1.0	12.9	5.0	26.0	23.5	0.086
P6KE16A	STU6516	15.2	16.8	1.0	13.6	5.0	27.0	22.5	0.086
P6KE18	STU6018	16.2	19.8	1.0	14.5	5.0	23.0	26.5	0.088
P6KE18A	STU6518	17.1	18.9	1.0	15.3	5.0	24.0	25.2	0.088
P6KE20	STU6020	18.0	22.0	1.0	16.2	5.0	21.0	29.1	0.090
P6KE20A	STU6520	19.0	21.0	1.0	17.1	5.0	22.0	27.7	0.090
P6KE22	STU6022	19.8	24.2	1.0	17.8	5.0	19.0	31.9	0.092
P6KE22A	STU6522	20.9	23.1	1.0	18.8	5.0	20.0	30.6	0.092
P6KE24	STU6024	21.6	26.4	1.0	19.4	5.0	17.0	34.7	0.094
P6KE24A	STU6524	22.8	25.2	1.0	20.5	5.0	18.0	33.2	0.094
P6KE27	STU6027	24.3	29.7	1.0	21.8	5.0	15.0	39.1	0.096
P6KE27A	STU6527	25.7	28.4	1.0	23.1	5.0	16.0	37.5	0.096
P6KE30	STU6030	27.0	33.0	1.0	24.3	5.0	14.0	43.5	0.097
P6KE30A	STU6530	28.5	31.5	1.0	25.6	5.0	14.4	41.4	0.097
P6KE33	STU6033	29.7	36.3	1.0	26.8	5.0	12.6	47.7	0.098
P6KE33A	STU6533	31.4	34.7	1.0	28.2	5.0	13.2	45.7	0.098
P6KE36	STU6036	32.4	39.6	1.0	29.1	5.0	11.6	52.0	0.099
P6KE36A	STU6536	34.2	37.8	1.0	30.8	5.0	12.0	49.9	0.099
P6KE39	STU6039	35.1	42.9	1.0	31.6	5.0	10.6	56.4	0.100
P6KE39A	STU6539	37.1	41.0	1.0	33.3	5.0	11.2	53.9	0.100
P6KE43	STU6043	38.7	47.3	1.0	34.8	5.0	9.6	61.9	0.101
P6KE43A	STU6543	40.9	45.2	1.0	36.8	5.0	10.1	59.3	0.101
P6KE47	STU6047	42.3	51.7	1.0	38.1	5.0	8.9	67.8	0.101
P6KE47A	STU6547	44.7	49.4	1.0	40.2	5.0	9.3	64.8	0.101
P6KE51	STU6051	45.9	56.1	1.0	41.3	5.0	8.2	73.5	0.102
P6KE51A	STU6551	48.5	53.6	1.0	43.6	5.0	8.6	70.1	0.102
P6KE56	STU6056	50.4	61.6	1.0	45.4	5.0	7.4	80.5	0.103
P6KE56A	STU6556	53.2	58.8	1.0	47.8	5.0	7.8	77.0	0.103
P6KE62	STU6062	55.8	68.2	1.0	50.2	5.0	6.8	89.0	0.104
P6KE62A	STU6562	58.9	65.1	1.0	53.0	5.0	7.1	85.0	0.104



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)		It	VRWM	IR	IRSM	VRSM	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

P6KE/STU6 Series, 600W, Case Type: DO-15/SMB



P6KE68	STU6068	61.2	74.8	1.0	55.1	5.0	6.1	98.0	0.104
P6KE68A	STU6568	64.6	71.4	1.0	58.1	5.0	6.5	92.0	0.104
P6KE75	STU6075	67.5	82.5	1.0	60.7	5.0	5.5	108	0.105
P6KE75A	STU6575	71.3	78.8	1.0	64.1	5.0	5.8	103	0.105
P6KE82	STU6082	73.8	90.2	1.0	66.4	5.0	5.1	118	0.105
P6KE82A	STU6582	77.9	86.1	1.0	70.1	5.0	5.3	113	0.105
P6KE91	STU6091	81.9	100	1.0	73.7	5.0	4.5	131	0.106
P6KE91A	STU6591	86.5	95.5	1.0	77.8	5.0	4.8	125	0.106
P6KE100	STU60B0	90.0	110	1.0	81	5.0	4.2	144	0.106
P6KE100A	STU65B0	95.0	105	1.0	85.5	5.0	4.4	137	0.106
P6KE110	STU60B1	99.0	121	1.0	89.2	5.0	3.8	158	0.107
P6KE110A	STU65B1	105	116	1.0	94.0	5.0	4.0	152	0.107
P6KE120	STU60B2	108	132	1.0	97.2	5.0	3.5	173	0.107
P6KE120A	STU65B2	114	126	1.0	102	5.0	3.6	165	0.107
P6KE130	STU60B3	117	143	1.0	106	5.0	3.2	187	0.107
P6KE130A	STU65B3	124	137	1.0	111	5.0	3.3	179	0.107
P6KE150	STU60B5	135	165	1.0	121	5.0	2.8	215	0.108
P6KE150A	STU65B5	143	158	1.0	128	5.0	2.9	207	0.108
P6KE160	STU60B6	144	176	1.0	130	5.0	2.6	230	0.108
P6KE160A	STU65B6	152	168	1.0	136	5.0	2.7	219	0.108
P6KE170	STU60B7	153	187	1.0	138	5.0	2.5	244	0.108
P6KE170A	STU65B7	162	179	1.0	145	5.0	2.6	234	0.108
P6KE180	STU60B8	162	198	1.0	146	5.0	2.3	258	0.108
P6KE180A	STU65B8	171	189	1.0	154	5.0	2.4	246	0.108
P6KE200	STU60D0	180	220	1.0	162	5.0	2.1	287	0.108
P6KE200A	STU65D0	190	210	1.0	171	5.0	2.2	274	0.108
P6KE220	STU60D2	198	242	1.0	175	5.0	1.75	344	0.108
P6KE220A	STU65D2	209	231	1.0	185	5.0	1.83	328	0.108
P6KE250	STU60D5	225	275	1.0	202	5.0	1.67	360	0.110
P6KE250A	STU65D5	237	263	1.0	214	5.0	1.75	344	0.110
P6KE300	STU60E0	270	330	1.0	243	5.0	1.40	430	0.110
P6KE300A	STU65E0	285	315	1.0	256	5.0	1.45	414	0.110
P6KE320	STU60E2	288	352	1.0	259	5.0	1.31	460	0.110
P6KE320A	STU65E2	303	337	1.0	272	5.0	1.35	445	0.110
P6KE350	STU60E5	315	385	1.0	284	5.0	1.20	504	0.110
P6KE350A	STU65E5	332	368	1.0	300	5.0	1.25	482	0.110
P6KE400	STU60G0	360	440	1.0	324	5.0	1.05	574	0.110
P6KE400A	STU65G0	380	420	1.0	342	5.0	1.10	548	0.110
P6KE440	STU60G4	396	484	1.0	356	5.0	0.95	631	0.110
P6KE440A	STU65G4	418	462	1.0	376	5.0	1.00	602	0.110

Notes:

- (1) V_{BR} measured after I_t applied for 300 μs , I_t = square wave pulse or equivalent
- (2) $V_F = 3.5 V_{max}$, $I_F = 50 A$ (6.8 V to 91 V)
 $V_F = 5.0 V_{max}$, $I_F = 50 A$ (100 V to 440 V) per 1/2 square or equivalent sine wave
 $PW = 8.3 ms$, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "C" or "CA" (Axial Lead) / replace the third digit of type from "U" to "B" (SMD)
- (4) "6KE" for Axial lead / "STU" or "STB" for SMD will be omitted on marking of the diode
- (5) For bidirectional types having V_R of 10 V and under, the I_R limit is doubled
- (6) For case type D2A (Axial Lead), we can support until the end of 2008.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
	V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	(% / °C)
Unidirectional	Min.	Max.	(mA)	(V)	(mA)	(A)	(V)

P6SMB Series, 600W, Case Type: SMB



P6SMB6.8A	6.45	7.14	10	5.80	1000	57.0	10.5	0.057
P6SMB7.5A	7.13	7.88	10	6.40	500	53.0	11.3	0.061
P6SMB8.2A	7.79	8.61	10	7.02	200	50.0	12.1	0.065
P6SMB9.1A	8.65	9.55	1.0	7.78	50	45.0	13.4	0.068
P6SMB10A	9.50	10.5	1.0	8.55	10	41.0	14.5	0.073
P6SMB11A	10.5	11.6	1.0	9.40	5.0	38.0	15.6	0.075
P6SMB12A	11.4	12.6	1.0	10.2	5.0	36.0	16.7	0.078
P6SMB13A	12.4	13.7	1.0	11.1	5.0	33.0	18.2	0.081
P6SMB15A	14.3	15.8	1.0	12.8	5.0	28.0	21.2	0.084
P6SMB16A	15.2	16.8	1.0	13.6	5.0	27.0	22.5	0.086
P6SMB18A	17.1	18.9	1.0	15.3	5.0	24.0	25.2	0.088
P6SMB20A	19.0	21.0	1.0	17.1	5.0	22.0	27.7	0.090
P6SMB22A	20.9	23.1	1.0	18.8	5.0	20.0	30.6	0.092
P6SMB24A	22.8	25.2	1.0	20.5	5.0	18.0	33.2	0.094
P6SMB27A	25.7	28.4	1.0	23.1	5.0	16.0	37.5	0.096
P6SMB30A	28.5	31.5	1.0	25.6	5.0	14.4	41.4	0.097
P6SMB33A	31.4	34.7	1.0	28.2	5.0	13.2	45.7	0.098
P6SMB36A	34.2	37.8	1.0	30.8	5.0	12.0	49.9	0.099
P6SMB39A	37.1	41.0	1.0	33.3	5.0	11.2	53.9	0.100
P6SMB43A	40.9	45.2	1.0	36.8	5.0	10.1	59.3	0.101
P6SMB47A	44.7	49.4	1.0	40.2	5.0	9.3	64.8	0.101
P6SMB51A	48.5	53.6	1.0	43.6	5.0	8.6	70.1	0.102
P6SMB56A	53.2	58.8	1.0	47.8	5.0	7.8	77.0	0.103
P6SMB62A	58.9	65.1	1.0	53.0	5.0	7.1	85.0	0.104
P6SMB68A	64.6	71.4	1.0	58.1	5.0	6.5	92.0	0.104
P6SMB75A	71.3	78.8	1.0	64.1	5.0	5.8	103	0.105
P6SMB82A	77.9	86.1	1.0	70.1	5.0	5.3	113	0.105
P6SMB91A	86.5	95.5	1.0	77.8	5.0	4.8	125	0.106
P6SMB100A	95.0	105	1.0	85.5	5.0	4.4	137	0.106
P6SMB110A	105	116	1.0	94.0	5.0	4.0	152	0.107
P6SMB120A	114	126	1.0	102	5.0	3.6	165	0.107
P6SMB130A	124	137	1.0	111	5.0	3.3	179	0.107
P6SMB150A	143	158	1.0	128	5.0	2.9	207	0.108
P6SMB160A	152	168	1.0	136	5.0	2.7	219	0.108
P6SMB170A	162	179	1.0	145	5.0	2.6	234	0.108
P6SMB180A	171	189	1.0	154	5.0	2.4	246	0.108
P6SMB200A	190	210	1.0	171	5.0	2.2	274	0.108
P6SMB220A	209	231	1.0	185	5.0	1.83	328	0.108
P6SMB250A	237	263	1.0	214	5.0	1.75	344	0.110
P6SMB300A	285	315	1.0	256	5.0	1.45	414	0.110
P6SMB350A	332	368	1.0	300	5.0	1.25	482	0.110
P6SMB400A	380	420	1.0	342	5.0	1.10	548	0.110
P6SMB440A	418	462	1.0	376	5.0	1.00	602	0.110
P6SMB480A	456	504	1.0	408	5.0	0.91	658	0.110
P6SMB510A	485	535	1.0	434	5.0	0.86	698	0.110
P6SMB540A	513	567	1.0	459	5.0	0.81	740	0.110

Notes:

- (1) V_{BR} measured after I_t applied for 300 μs ., I_t = square wave pulse or equivalent
- (2) $V_F = 3.5 V_{max}$., $I_F = 50 A$ (6.8 V to 91 V)
 $V_F = 5.0 V_{max}$., $I_F = 50 A$ (100 V to 540 V) per 1/2 square or equivalent sine wave
PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "CA" .Bidirectional types having V_R of 10 V and under, the I_R limit is doubled
- (4) "P6SMB" will be omitted in marking on the diode



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_T^{(1)}$			Reverse Stand-off Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		I_T				
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)

SMBJ Series, 600W, Case Type: SMB



SMBJ5.0	6.40	7.82	10	5.0	800	62.5	9.6
SMBJ5.0A	6.40	7.07	10	5.0	800	65.2	9.2
SMBJ6.0	6.67	8.15	10	6.0	800	52.6	11.4
SMBJ6.0A	6.67	7.37	10	6.0	800	58.3	10.3
SMBJ6.5	7.22	8.82	10	6.5	500	48.7	12.3
SMBJ6.5A	7.22	7.98	10	6.5	500	53.6	11.2
SMBJ7.0	7.78	9.51	10	7.0	200	45.1	13.3
SMBJ7.0A	7.78	8.6	10	7.0	200	50.0	12.0
SMBJ7.5	8.33	10.2	1.0	7.5	100	42.0	14.3
SMBJ7.5A	8.33	9.21	1.0	7.5	100	46.5	12.9
SMBJ8.0	8.89	10.9	1.0	8.0	50	40.0	15.0
SMBJ8.0A	8.89	9.83	1.0	8.0	50	44.1	13.6
SMBJ8.5	9.44	11.5	1.0	8.5	20	37.7	15.9
SMBJ8.5A	9.44	10.4	1.0	8.5	20	41.7	14.4
SMBJ9.0	10.0	12.2	1.0	9.0	10	35.5	16.9
SMBJ9.0A	10.0	11.1	1.0	9.0	10	39.0	15.4
SMBJ10	11.1	13.6	1.0	10	5.0	31.9	18.8
SMBJ10A	11.1	12.3	1.0	10	5.0	35.3	17.0
SMBJ11	12.2	14.9	1.0	11	5.0	29.9	20.1
SMBJ11A	12.2	13.5	1.0	11	5.0	33.0	18.2
SMBJ12	13.3	16.3	1.0	12	5.0	27.3	22.0
SMBJ12A	13.3	14.7	1.0	12	5.0	30.2	19.9
SMBJ13	14.4	17.6	1.0	13	5.0	25.2	23.8
SMBJ13A	14.4	15.9	1.0	13	5.0	27.9	21.5
SMBJ14	15.6	19.1	1.0	14	5.0	23.3	25.8
SMBJ14A	15.6	17.2	1.0	14	5.0	25.8	23.2
SMBJ15	16.7	20.4	1.0	15	5.0	22.3	26.9
SMBJ15A	16.7	18.5	1.0	15	5.0	24.0	24.4
SMBJ16	17.8	21.8	1.0	16	5.0	20.8	28.8
SMBJ16A	17.8	19.7	1.0	16	5.0	23.1	26.0
SMBJ17	18.9	23.1	1.0	17	5.0	19.7	30.5
SMBJ17A	18.9	20.9	1.0	17	5.0	21.7	27.6
SMBJ18	20.0	24.4	1.0	18	5.0	18.6	32.2
SMBJ18A	20.0	22.1	1.0	18	5.0	20.5	29.2
SMBJ20	22.2	27.1	1.0	20	5.0	16.7	35.8
SMBJ20A	22.2	24.5	1.0	20	5.0	18.5	32.4
SMBJ22	24.4	29.8	1.0	22	5.0	15.2	39.4
SMBJ22A	24.4	26.9	1.0	22	5.0	16.9	35.5
SMBJ24	26.7	32.6	1.0	24	5.0	14.0	43.0
SMBJ24A	26.7	29.5	1.0	24	5.0	15.4	38.9
SMBJ26	28.9	35.3	1.0	26	5.0	12.4	46.6
SMBJ26A	28.9	31.9	1.0	26	5.0	14.2	42.1
SMBJ28	31.1	38	1.0	28	5.0	12.0	50.0
SMBJ28A	31.1	34.4	1.0	28	5.0	13.2	45.4
SMBJ30	33.3	40.7	1.0	30	5.0	11.2	53.5
SMBJ30A	33.3	36.8	1.0	30	5.0	12.4	48.4
SMBJ33	36.7	44.9	1.0	33	5.0	10.2	59.0
SMBJ33A	36.7	40.6	1.0	33	5.0	11.3	53.3
SMBJ36	40.0	48.9	1.0	36	5.0	9.3	64.3
SMBJ36A	40.0	44.2	1.0	36	5.0	10.3	58.1



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_T^{(1)}$			Reverse Stand-off Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		I_T				
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)

SMBJ Series, 600W, Case Type: SMB



SMBJ40	44.4	54.3	1.0	40	5.0	8.4	71.4
SMBJ40A	44.4	49.1	1.0	40	5.0	9.3	64.5
SMBJ43	47.8	58.4	1.0	43	5.0	7.8	76.7
SMBJ43A	47.8	52.8	1.0	43	5.0	8.6	69.4
SMBJ45	50.0	61.1	1.0	45	5.0	7.5	80.3
SMBJ45A	50.0	55.3	1.0	45	5.0	8.3	72.7
SMBJ48	53.3	65.1	1.0	48	5.0	7.0	85.5
SMBJ48A	53.3	58.9	1.0	48	5.0	7.7	77.4
SMBJ51	56.7	69.3	1.0	51	5.0	6.6	91.1
SMBJ51A	56.7	62.7	1.0	51	5.0	7.3	82.4
SMBJ54	60.0	73.3	1.0	54	5.0	6.2	96.3
SMBJ54A	60.0	66.3	1.0	54	5.0	6.9	87.1
SMBJ58	64.4	78.7	1.0	58	5.0	5.8	103
SMBJ58A	64.4	71.2	1.0	58	5.0	6.4	93.6
SMBJ60	66.7	81.5	1.0	60	5.0	5.6	107
SMBJ60A	66.7	73.7	1.0	60	5.0	6.2	96.8
SMBJ64	71.1	86.9	1.0	64	5.0	5.3	114
SMBJ64A	71.1	78.6	1.0	64	5.0	5.8	103
SMBJ70	77.8	95.1	1.0	70	5.0	4.8	125
SMBJ70A	77.8	86.0	1.0	70	5.0	5.3	113
SMBJ75	83.3	102	1.0	75	5.0	4.5	134
SMBJ75A	83.3	92.1	1.0	75	5.0	4.9	121
SMBJ78	86.7	106	1.0	78	5.0	4.3	139
SMBJ78A	86.7	95.8	1.0	78	5.0	4.7	126
SMBJ85	94.4	115	1.0	85	5.0	3.9	151
SMBJ85A	94.4	104	1.0	85	5.0	4.4	137
SMBJ90	100	122	1.0	90	5.0	3.8	160
SMBJ90A	100	111	1.0	90	5.0	4.1	146
SMBJ100	111	136	1.0	100	5.0	3.4	179
SMBJ100A	111	123	1.0	100	5.0	3.7	162
SMBJ110	122	149	1.0	110	5.0	3.0	196
SMBJ110A	122	135	1.0	110	5.0	3.4	177
SMBJ120	133	163	1.0	120	5.0	2.8	214
SMBJ120A	133	147	1.0	120	5.0	3.1	193
SMBJ130	144	176	1.0	130	5.0	2.6	231
SMBJ130A	144	159	1.0	130	5.0	2.9	209
SMBJ150	167	204	1.0	150	5.0	2.2	268
SMBJ150A	167	185	1.0	150	5.0	2.5	243
SMBJ160	178	218	1.0	160	5.0	2.1	287
SMBJ160A	178	197	1.0	160	5.0	2.3	259
SMBJ170	189	231	1.0	170	5.0	2.0	304
SMBJ170A	189	209	1.0	170	5.0	2.2	275
SMBJ188	209	255	1.0	188	5.0	1.7	344
SMBJ188A	209	231	1.0	188	5.0	2.0	328

- Notes: (1) Pulse test : $t_p \leq 50\text{ms}$
(2) For bidirectional use suffix "C" or "CA"
(3) For bidirectional types with V_{WM} of 10 Volts and less, the I_R limit is doubled
(4) For the bidirectional SMBJ5.0CA, the maximum V_{BR} is 7.25V
(5) "SMBJ" will be omitted on marking of the diode



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
	V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
Bi-directional	Min.	(mA)	(V)	(μ A)	(A)	(V)	(% / °C)

EPS5 Series, 1000W, Case Type: M1A



EPS5	6.0	1.0	5	50	10.0	9.5	0.030
EPS8	9.0	1.0	8	2	10.0	13.7	0.040
EPS12	13.8	1.0	12	1	10.0	21.6	0.050
EPS15	16.7	1.0	15	1	10.0	26.0	0.055
EPS17	19.0	1.0	17	1	10.0	29.2	0.060
EPS24	28.4	1.0	24	1	10.0	43.2	0.070
EPS28	31.0	1.0	28	1	10.0	47.8	0.075
EPS33	36.8	1.0	33	1	10.0	56.7	0.080
EPS48	54.0	1.0	48	1	10.0	84.3	0.090

Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
	V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
Unidirectional	Min.	(mA)	(V)	(μ A)	(A)	(V)	(% / °C)

1N5610 - 1N5613, 1500W, Case Type: DO-201



1N5610	33.0	1.0	30.5	5	32	47.6	0.093
1N5611	43.7	1.0	40.3	5	24	63.5	0.094
1N5612	54.0	1.0	49.0	5	19	78.5	0.096
1N5613	191	1.0	175	5	5.7	265	0.100



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
Unidirectional		VBR (V)	It	VRWM	IR	IRSM	VRSM	of VBR
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
								(% / °C)

1N6267/STUN Series, 1,500 W, Case Type: DO-201/SMC



1N6267	STUN06I	6.12	7.48	10	5.50	1000	139	10.8	0.057
1N6267A	STUN56I	6.45	7.14	10	5.80	1000	143	10.5	0.057
1N6268	STUN07F	6.75	8.25	10	6.05	500	128	11.7	0.061
1N6268A	STUN57F	7.13	7.88	10	6.40	500	132	11.3	0.061
1N6269	STUN08C	7.38	9.02	10	6.63	200	120	12.5	0.065
1N6269A	STUN58C	7.79	8.61	10	7.02	200	124	12.1	0.065
1N6270	STUN09B	8.19	10.0	1.0	7.37	50	109	13.8	0.068
1N6270A	STUN59B	8.65	9.55	1.0	7.78	50	112	13.4	0.068
1N6271	STUN010	9.00	11.0	1.0	8.10	10	100	15.0	0.073
1N6271A	STUN510	9.50	10.5	1.0	8.55	10	103	14.5	0.073
1N6272	STUN011	9.90	12.1	1.0	8.92	5.0	93.0	16.2	0.075
1N6272A	STUN511	10.5	11.6	1.0	9.40	5.0	96.0	15.6	0.075
1N6273	STUN012	10.8	13.2	1.0	9.72	5.0	87.0	17.3	0.078
1N6273A	STUN512	11.4	12.6	1.0	10.2	5.0	90.0	16.7	0.078
1N6274	STUN013	11.7	14.3	1.0	10.5	5.0	79.0	19.0	0.081
1N6274A	STUN513	12.4	13.7	1.0	11.1	5.0	82.0	18.2	0.081
1N6275	STUN015	13.5	16.3	1.0	12.1	5.0	68.0	22.0	0.084
1N6275A	STUN515	14.3	15.8	1.0	12.8	5.0	71.0	21.2	0.084
1N6276	STUN016	14.4	17.6	1.0	12.9	5.0	64.0	23.5	0.086
1N6276A	STUN516	15.2	16.8	1.0	13.6	5.0	67.0	22.5	0.086
1N6277	STUN018	16.2	19.8	1.0	14.5	5.0	56.5	26.5	0.088
1N6277A	STUN518	17.1	18.9	1.0	15.3	5.0	59.5	25.2	0.088
1N6278	STUN020	18.0	22.0	1.0	16.2	5.0	51.5	29.1	0.090
1N6278A	STUN520	19.0	21.0	1.0	17.1	5.0	54.0	27.7	0.090
1N6279	STUN022	19.8	24.2	1.0	17.8	5.0	47.0	31.9	0.092
1N6279A	STUN522	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1N6280	STUN024	21.6	26.4	1.0	19.4	5.0	43.0	34.7	0.094
1N6280A	STUN524	22.8	25.2	1.0	20.5	5.0	45.0	33.2	0.094
1N6281	STUN027	24.3	29.7	1.0	21.8	5.0	38.5	39.1	0.096
1N6281A	STUN527	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1N6282	STUN030	27.0	33.0	1.0	24.3	5.0	34.5	43.5	0.097
1N6282A	STUN530	28.5	31.5	1.0	25.6	5.0	36.0	41.4	0.097
1N6283	STUN033	29.7	36.3	1.0	26.8	5.0	31.5	47.7	0.098
1N6283A	STUN533	31.4	34.7	1.0	28.2	5.0	33.0	45.7	0.098
1N6284	STUN036	32.4	39.6	1.0	29.1	5.0	29.0	52.0	0.099
1N6284A	STUN536	34.2	37.8	1.0	30.8	5.0	30.0	49.9	0.099
1N6285	STUN039	35.1	42.9	1.0	31.6	5.0	26.5	56.4	0.100
1N6285A	STUN539	37.1	41.0	1.0	33.3	5.0	28.0	53.9	0.100
1N6286	STUN043	38.7	47.3	1.0	34.8	5.0	24.0	61.9	0.101
1N6286A	STUN543	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1N6287	STUN047	42.3	51.7	1.0	38.1	5.0	22.2	67.8	0.101
1N6287A	STUN547	44.7	49.4	1.0	40.2	5.0	23.2	64.8	0.101



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ I_t (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
Unidirectional		V_{BR} (V)	I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	of V_{BR}
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μ A)	(A)	
								(% / °C)

1N6267/STUN Series, 1,500 W, Case Type: DO-201/SMC



1N6288	STUN051	45.9	56.1	1.0	41.3	5.0	20.4	73.5	0.102
1N6288A	STUN551	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1N6289	STUN056	50.4	61.6	1.0	45.4	5.0	18.6	80.5	0.103
1N6289A	STUN556	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1N6290	STUN062	55.8	68.2	1.0	50.2	5.0	16.9	89.0	0.104
1N6290A	STUN562	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104
1N6291	STUN068	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1N6291A	STUN568	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1N6292	STUN075	67.5	82.5	1.0	60.7	5.0	13.9	108	0.105
1N6292A	STUN575	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1N6293	STUN082	73.8	90.2	1.0	66.4	5.0	12.7	118	0.105
1N6293A	STUN582	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1N6294	STUN091	81.9	100	1.0	73.7	5.0	11.4	131	0.106
1N6294A	STUN591	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1N6295	STUN0B0	90.0	110	1.0	81.0	5.0	10.4	144	0.106
1N6295A	STUN5B0	95.0	105	1.0	85.5	5.0	11.0	137	0.106
1N6296	STUN0B1	99.0	121	1.0	89.2	5.0	9.5	158	0.107
1N6296A	STUN5B1	105	116	1.0	94.0	5.0	9.9	152	0.107
1N6297	STUN0B2	108	132	1.0	97.2	5.0	8.7	173	0.107
1N6297A	STUN5B2	114	126	1.0	102	5.0	9.1	165	0.107
1N6298	STUN0B3	117	143	1.0	105	5.0	8.0	187	0.107
1N6298A	STUN5B3	124	137	1.0	111	5.0	8.4	179	0.107
1N6299	STUN0B5	135	165	1.0	121	5.0	7.0	215	0.108
1N6299A	STUN5B5	143	158	1.0	128	5.0	7.2	207	0.108
1N6300	STUN0B6	144	176	1.0	130	5.0	6.5	230	0.108
1N6300A	STUN5B6	152	168	1.0	136	5.0	6.8	219	0.108
1N6301	STUN0B7	153	187	1.0	138	5.0	6.2	244	0.108
1N6301A	STUN5B7	162	179	1.0	145	5.0	6.4	234	0.108
1N6302	STUN0B8	162	198	1.0	146	5.0	5.8	258	0.108
1N6302A	STUN5B8	171	189	1.0	154	5.0	6.1	246	0.108
1N6303	STUN0D0	180	220	1.0	162	5.0	5.2	287	0.108
1N6303A	STUN5D0	190	210	1.0	171	5.0	5.5	274	0.108

Notes:

- (1) V_{BR} measured after I_t applied for 300 μ s., I_t = square wave pulse or equivalent
- (2) $V_F = 3.5 V_{max}$, $I_F = 100$ A (6.8 V to 91 V)
 $V_F = 5.0 V_{max}$, $I_F = 100$ A (100 V to 200 V) per 1/2 square or equivalent sine wave
 PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "C" or "CA" (Axial Lead) / replace the third letter of type from "U" to "B" (SMD)
- (4) "STU" or "STB" will be omitted on marking of the diode.
- (5) Add suffix "L" (Axial Lead) for case type DO-201AD
- (6) For bidirectional types have V_R of 10 V and under, the I_R limit is doubled.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ I_t (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
Unidirectional		V_{BR} (V)		I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)	(% / °C)

1.5KE/STUK Series, 1,500 W, Case Type: DO-201/SMC



1.5KE6.8	STUK06I	6.12	7.48	10	5.50	1000	139	10.8	0.057
1.5KE6.8A	STUK56I	6.45	7.14	10	5.80	1000	143	10.5	0.057
1.5KE7.5	STUK07F	6.75	8.25	10	6.05	500	128	11.7	0.061
1.5KE7.5A	STUK57F	7.13	7.88	10	6.40	500	132	11.3	0.061
1.5KE8.2	STUK08C	7.38	9.02	10	6.63	200	120	12.5	0.065
1.5KE8.2A	STUK58C	7.79	8.61	10	7.02	200	124	12.1	0.065
1.5KE9.1	STUK09B	8.19	10.0	1.0	7.37	50	109	13.8	0.068
1.5KE9.1A	STUK59B	8.65	9.55	1.0	7.78	50	112	13.4	0.068
1.5KE10	STUK010	9.00	11.0	1.0	8.10	10	100	15.0	0.073
1.5KE10A	STUK510	9.50	10.5	1.0	8.55	10	103	14.5	0.073
1.5KE11	STUK011	9.90	12.1	1.0	8.92	5.0	93.0	16.2	0.075
1.5KE11A	STUK511	10.5	11.6	1.0	9.40	5.0	96.0	15.6	0.075
1.5KE12	STUK012	10.8	13.2	1.0	9.72	5.0	87.0	17.3	0.078
1.5KE12A	STUK512	11.4	12.6	1.0	10.2	5.0	90.0	16.7	0.078
1.5KE13	STUK013	11.7	14.3	1.0	10.5	5.0	79.0	19.0	0.081
1.5KE13A	STUK513	12.4	13.7	1.0	11.1	5.0	82.0	18.2	0.081
1.5KE15	STUK015	13.5	16.5	1.0	12.1	5.0	68.0	22.0	0.084
1.5KE15A	STUK515	14.3	15.8	1.0	12.8	5.0	71.0	21.2	0.084
1.5KE16	STUK016	14.4	17.6	1.0	12.9	5.0	64.0	23.5	0.086
1.5KE16A	STUK516	15.2	16.8	1.0	13.6	5.0	67.0	22.5	0.086
1.5KE18	STUK018	16.2	19.8	1.0	14.5	5.0	56.5	26.5	0.088
1.5KE18A	STUK518	17.1	18.9	1.0	15.3	5.0	59.5	25.2	0.088
1.5KE20	STUK020	18.0	22.0	1.0	16.2	5.0	51.5	29.1	0.090
1.5KE20A	STUK520	19.0	21.0	1.0	17.1	5.0	54.0	27.7	0.090
1.5KE22	STUK022	19.8	24.2	1.0	17.8	5.0	47.0	31.9	0.092
1.5KE22A	STUK522	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1.5KE24	STUK024	21.6	26.4	1.0	19.4	5.0	43.0	34.7	0.094
1.5KE24A	STUK524	22.8	25.2	1.0	20.5	5.0	45.0	33.2	0.094
1.5KE27	STUK027	24.3	29.7	1.0	21.8	5.0	38.5	39.1	0.096
1.5KE27A	STUK527	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1.5KE30	STUK030	27.0	33.0	1.0	24.3	5.0	34.5	43.5	0.097
1.5KE30A	STUK530	28.5	31.5	1.0	25.6	5.0	36.0	41.4	0.097
1.5KE33	STUK033	29.7	36.3	1.0	26.8	5.0	31.5	47.7	0.098
1.5KE33A	STUK533	31.4	34.7	1.0	28.2	5.0	33.0	45.7	0.098
1.5KE36	STUK036	32.4	39.6	1.0	29.1	5.0	29.0	52.0	0.099
1.5KE36A	STUK536	34.2	37.8	1.0	30.8	5.0	30.0	49.9	0.099
1.5KE39	STUK039	35.1	42.9	1.0	31.6	5.0	26.5	56.4	0.100
1.5KE39A	STUK539	37.1	41.0	1.0	33.3	5.0	28.0	53.9	0.100
1.5KE43	STUK043	38.7	47.3	1.0	34.8	5.0	24.0	61.9	0.101
1.5KE43A	STUK543	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1.5KE47	STUK047	42.3	51.7	1.0	38.1	5.0	22.2	67.8	0.101
1.5KE47A	STUK547	44.7	49.4	1.0	40.2	5.0	23.2	64.8	0.101
1.5KE51	STUK051	45.9	56.1	1.0	41.3	5.0	20.4	73.5	0.102
1.5KE51A	STUK551	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1.5KE56	STUK056	50.4	61.6	1.0	45.4	5.0	18.6	80.5	0.103
1.5KE56A	STUK556	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1.5KE62	STUK062	55.8	68.2	1.0	50.2	5.0	16.9	89.0	0.104
1.5KE62A	STUK562	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Breakdown Voltage @ I_t (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Coefficient of V_{BR}
Unidirectional		V_{BR} (V)		I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	of V_{BR}
Axial Lead	SMD	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)	(% / °C)

1.5KE/STUK Series, 1,500 W, Case Type: DO-201/SMC



1.5KE68	STUK068	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1.5KE68A	STUK568	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1.5KE75	STUK075	67.5	82.5	1.0	60.7	5.0	13.9	108	0.105
1.5KE75A	STUK575	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1.5KE82	STUK082	73.8	90.2	1.0	66.4	5.0	12.7	118	0.105
1.5KE82A	STUK582	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1.5KE91	STUK091	81.9	100	1.0	73.7	5.0	11.4	131	0.106
1.5KE91A	STUK591	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1.5KE100	STUK0B0	90.0	110	1.0	81.0	5.0	10.4	144	0.106
1.5KE100A	STUK5B0	95.0	105	1.0	85.5	5.0	11.0	137	0.106
1.5KE110	STUK0B1	99.0	121	1.0	89.2	5.0	9.5	158	0.107
1.5KE110A	STUK5B1	105	116	1.0	94.0	5.0	9.9	152	0.107
1.5KE120	STUK0B2	108	132	1.0	97.2	5.0	8.7	173	0.107
1.5KE120A	STUK5B2	114	126	1.0	102	5.0	9.1	165	0.107
1.5KE130	STUK0B3	117	143	1.0	105	5.0	8.0	187	0.107
1.5KE130A	STUK5B3	124	137	1.0	111	5.0	8.4	179	0.107
1.5KE150	STUK0B5	135	165	1.0	121	5.0	7.0	215	0.108
1.5KE150A	STUK5B5	143	158	1.0	128	5.0	7.2	207	0.108
1.5KE160	STUK0B6	144	176	1.0	130	5.0	6.5	230	0.108
1.5KE160A	STUK5B6	152	168	1.0	136	5.0	6.8	219	0.108
1.5KE170	STUK0B7	153	187	1.0	138	5.0	6.2	244	0.108
1.5KE170A	STUK5B7	162	179	1.0	145	5.0	6.4	234	0.108
1.5KE180	STUK0B8	162	198	1.0	146	5.0	5.8	258	0.108
1.5KE180A	STUK5B8	171	189	1.0	154	5.0	6.1	246	0.108
1.5KE200	STUK0D0	180	220	1.0	162	5.0	5.2	287	0.108
1.5KE200A	STUK5D0	190	210	1.0	171	5.0	5.5	274	0.108
1.5KE220	STUK0D2	198	242	1.0	175	5.0	4.3	344	0.108
1.5KE220A	STUK5D2	209	231	1.0	185	5.0	4.6	328	0.108
1.5KE250	STUK0D5	225	275	1.0	202	5.0	4.2	360	0.110
1.5KE250A	STUK5D5	237	263	1.0	214	5.0	4.4	344	0.110
1.5KE300	STUK0E0	270	330	1.0	243	5.0	3.5	430	0.110
1.5KE300A	STUK5E0	285	315	1.0	256	5.0	3.6	414	0.110
1.5KE350	STUK0E5	315	385	1.0	284	5.0	3.0	504	0.110
1.5KE350A	STUK5E5	332	368	1.0	300	5.0	3.1	482	0.110
1.5KE400	STUK0G0	360	440	1.0	324	5.0	2.6	574	0.110
1.5KE400A	STUK5G0	380	420	1.0	342	5.0	2.7	548	0.110
1.5KE440	STUK0G4	396	484	1.0	356	5.0	2.4	631	0.110
1.5KE440A	STUK5G4	418	462	1.0	376	5.0	2.5	602	0.110

Notes:

- (1) V_{BR} measured after I_t applied for 300 μ s., I_t = square wave pulse or equivalent
- (2) $V_F = 3.5 V_{max}$, $I_F = 100$ A (6.8 V to 91 V)
 $V_F = 5.0 V_{max}$, $I_F = 100$ A (100 V to 440 V) per 1/2 square or equivalent sine wave
 $PW = 8.3$ ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "C" or "CA" (Axial Lead) / replace the third letter of type from "U" to "B" (SMD)
- (4) "1.5" for axial lead / "STU" or "STB" for SMD will be omitted on marking of the diode.
- (5) Use suffix "L" (Axial Lead) for case type DO-201AD
- (6) For bidirectional types have V_R of 10 V and under, the I_R limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_T^{(1)}$		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)	I_T	V_{WM}	$I_R^{(3)}$	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)

SMCJ Series, 1,500W, Case Type: SMC



SMCJ5.0	6.40	7.82	10	5.0	1000	156.3	9.6
SMCJ5.0A	6.40	7.07	10	5.0	1000	163.0	9.2
SMCJ6.0	6.67	8.15	10	6.0	1000	131.6	11.4
SMCJ6.0A	6.67	7.37	10	6.0	1000	145.6	10.3
SMCJ6.5	7.22	8.82	10	6.5	500	122.0	12.3
SMCJ6.5A	7.22	7.98	10	6.5	500	133.9	11.2
SMCJ7.0	7.78	9.51	10	7.0	200	112.8	13.3
SMCJ7.0A	7.78	8.6	10	7.0	200	125.0	12.0
SMCJ7.5	8.33	10.2	1.0	7.5	100	104.9	14.3
SMCJ7.5A	8.33	9.21	1.0	7.5	100	116.3	12.9
SMCJ8.0	8.89	10.9	1.0	8.0	50	100.0	15.0
SMCJ8.0A	8.89	9.83	1.0	8.0	50	110.3	13.6
SMCJ8.5	9.44	11.5	1.0	8.5	20	94.3	15.9
SMCJ8.5A	9.44	10.4	1.0	8.5	20	104.2	14.4
SMCJ9.0	10.0	12.2	1.0	9.0	10	88.8	16.9
SMCJ9.0A	10.0	11.1	1.0	9.0	10	97.4	15.4
SMCJ10	11.1	13.6	1.0	10	5.0	79.8	18.8
SMCJ10A	11.1	12.3	1.0	10	5.0	88.2	17.0
SMCJ11	12.2	14.9	1.0	11	5.0	74.6	20.1
SMCJ11A	12.2	13.5	1.0	11	5.0	82.4	18.2
SMCJ12	13.3	16.3	1.0	12	5.0	68.2	22.0
SMCJ12A	13.3	14.7	1.0	12	5.0	75.4	19.9
SMCJ13	14.4	17.6	1.0	13	1.0	63.0	23.8
SMCJ13A	14.4	15.9	1.0	13	1.0	69.8	21.5
SMCJ14	15.6	19.1	1.0	14	1.0	58.1	25.8
SMCJ14A	15.6	17.2	1.0	14	1.0	64.7	23.2
SMCJ15	16.7	20.4	1.0	15	1.0	55.8	26.9
SMCJ15A	16.7	18.5	1.0	15	1.0	61.5	24.4
SMCJ16	17.8	21.8	1.0	16	1.0	52.1	28.8
SMCJ16A	17.8	19.7	1.0	16	1.0	57.7	26.0
SMCJ17	18.9	23.1	1.0	17	1.0	49.2	30.5
SMCJ17A	18.9	20.9	1.0	17	1.0	54.3	27.6
SMCJ18	20.0	24.4	1.0	18	1.0	46.6	32.2
SMCJ18A	20.0	22.1	1.0	18	1.0	51.4	29.2
SMCJ20	22.2	27.1	1.0	20	1.0	41.9	35.8
SMCJ20A	22.2	24.5	1.0	20	1.0	46.3	32.4
SMCJ22	24.4	29.8	1.0	22	1.0	38.1	39.4
SMCJ22A	24.4	26.9	1.0	22	1.0	42.3	35.5
SMCJ24	26.7	32.6	1.0	24	1.0	34.9	43.0
SMCJ24A	26.7	29.5	1.0	24	1.0	38.6	38.9
SMCJ26	28.9	35.3	1.0	26	1.0	32.2	46.6
SMCJ26A	28.9	31.9	1.0	26	1.0	35.6	42.1
SMCJ28	31.1	38.0	1.0	28	1.0	30.0	50.0
SMCJ28A	31.1	34.4	1.0	28	1.0	33.0	45.4
SMCJ30	33.3	40.7	1.0	30	1.0	28.0	53.5
SMCJ30A	33.3	36.8	1.0	30	1.0	31.0	48.4
SMCJ33	36.7	44.9	1.0	33	1.0	25.4	59.0
SMCJ33A	36.7	40.6	1.0	33	1.0	28.1	53.3
SMCJ36	40.0	48.9	1.0	36	1.0	23.3	64.3
SMCJ36A	40.0	44.2	1.0	36	1.0	25.8	58.1
SMCJ40	44.4	54.3	1.0	40	1.0	21.0	71.4
SMCJ40A	44.4	49.1	1.0	40	1.0	23.3	64.5
SMCJ43	47.8	58.4	1.0	43	1.0	19.6	76.7
SMCJ43A	47.8	52.8	1.0	43	1.0	21.6	69.4
SMCJ45	50.0	61.1	1.0	45	1.0	18.7	80.3



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_T^{(1)}$		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)	I_T	V_{WM}	$I_R^{(3)}$	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)

SMCJ Series, 1,500W, Case Type: SMC



SMCJ45A	50.0	55.3	1.0	45	1.0	20.6	72.7
SMCJ48	53.3	65.1	1.0	48	1.0	17.5	85.5
SMCJ48A	53.3	58.9	1.0	48	1.0	19.4	77.4
SMCJ51	56.7	69.3	1.0	51	1.0	16.5	91.1
SMCJ51A	56.7	62.7	1.0	51	1.0	18.2	82.4
SMCJ54	60.0	73.3	1.0	54	1.0	15.6	96.3
SMCJ54A	60.0	66.3	1.0	54	1.0	17.2	87.1
SMCJ58	64.4	78.7	1.0	58	1.0	14.6	103
SMCJ58A	64.4	71.2	1.0	58	1.0	16.0	93.6
SMCJ60	66.7	81.5	1.0	60	1.0	14.0	107
SMCJ60A	66.7	73.7	1.0	60	1.0	15.5	96
SMCJ64	71.1	86.4	1.0	64	1.0	13.2	114
SMCJ64A	71.1	78.6	1.0	64	1.0	14.6	103
SMCJ70	77.8	95.1	1.0	70	1.0	12.0	125
SMCJ70A	77.8	86	1.0	70	1.0	13.3	113
SMCJ75	83.3	102	1.0	75	1.0	11.2	134
SMCJ75A	83.3	92.1	1.0	75	1.0	12.4	121
SMCJ78	86.7	106	1.0	78	1.0	10.8	139
SMCJ78A	86.7	95.8	1.0	78	1.0	11.9	126
SMCJ85	94.4	115	1.0	85	1.0	9.9	151
SMCJ85A	94.4	104	1.0	85	1.0	10.9	137
SMCJ90	100	122	1.0	90	1.0	9.4	160
SMCJ90A	100	111	1.0	90	1.0	10.3	146
SMCJ100	111	136	1.0	100	1.0	8.4	179
SMCJ100A	111	123	1.0	100	1.0	9.3	162
SMCJ110	122	149	1.0	110	1.0	7.7	196
SMCJ110A	122	135	1.0	110	1.0	8.5	177
SMCJ120	133	163	1.0	120	1.0	7.0	214
SMCJ120A	133	147	1.0	120	1.0	7.8	193
SMCJ130	144	176	1.0	130	1.0	6.5	231
SMCJ130A	144	159	1.0	130	1.0	7.2	209
SMCJ150	167	204	1.0	150	1.0	5.6	268
SMCJ150A	167	185	1.0	150	1.0	6.2	243
SMCJ160	178	218	1.0	160	1.0	5.2	287
SMCJ160A	178	197	1.0	160	1.0	5.8	259
SMCJ170	189	231	1.0	170	1.0	4.90	304
SMCJ170A	189	209	1.0	170	1.0	5.50	275
SMCJ188	209	255	1.0	188	1.0	4.40	344
SMCJ188A	209	231	1.0	188	1.0	4.60	328
SMCJ200A	224	247	1.0	200	1.0	4.6	324
SMCJ220A	246	272	1.0	220	1.0	4.2	356
SMCJ250A	279	309	1.0	250	1.0	3.7	405
SMCJ300A	335	371	1.0	300	1.0	3.1	486
SMCJ350A	391	432	1.0	350	1.0	2.6	567
SMCJ400A	447	494	1.0	400	1.0	2.3	648
SMCJ440A	492	543	1.0	440	1.0	2.1	713

Notes :

- (1) Pulse test : $t_p \leq 50ms$
- (2) For bidirectional use suffix "C" or "CA"
- (3) For bidirectional types have V_{WM} of 10 V and less , the I_R limit is doubled
- (4) For the bidirectional SMCJ5.0CA, the maximum V_{BR} is 7.25V
- (5) "SMCJ" will be omitted on marking of the diode
- (6) For part without A , the V_{BR} is $\pm 10\%$ and V_C is $\pm 5\%$ higher than with A parts.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)	I_T	V_{WM}	I_R	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)
			(V)	(μ A)	(A)	(V)

3.0SMCJ Series, 3,000W, Case Type: SMC



3.0SMCJ11	12.2	15.4	1.0	11	1000	149.2	20.1
3.0SMCJ11A	12.2	14.0	1.0	11	1000	184.8	18.2
3.0SMCJ12	13.3	16.9	1.0	12	1000	136.4	22.0
3.0SMCJ12A	13.3	15.3	1.0	12	1000	150.6	19.9
3.0SMCJ13	14.4	18.2	1.0	13	500	126.0	23.8
3.0SMCJ13A	14.4	16.5	1.0	13	500	139.4	21.5
3.0SMCJ14	15.6	19.8	1.0	14	200	116.2	25.8
3.0SMCJ14A	15.6	17.9	1.0	14	200	129.4	23.2
3.0SMCJ15	16.7	21.1	1.0	15	100	111.6	26.9
3.0SMCJ15A	16.7	19.2	1.0	15	100	123.0	24.4
3.0SMCJ16	17.8	22.6	1.0	16	50	104.2	28.8
3.0SMCJ16A	17.8	20.5	1.0	16	50	115.4	26.0
3.0SMCJ17	18.9	23.9	1.0	17	20	98.4	30.5
3.0SMCJ17A	18.9	21.7	1.0	17	20	106.6	27.6
3.0SMCJ18	20.0	25.3	1.0	18	10	93.2	32.2
3.0SMCJ18A	20.0	23.3	1.0	18	10	102.8	29.2
3.0SMCJ20	22.2	28.1	1.0	20	10	83.8	35.8
3.0SMCJ20A	22.2	25.5	1.0	20	10	92.6	32.4
3.0SMCJ22	24.4	30.9	1.0	22	5	76.2	39.4
3.0SMCJ22A	24.4	28.0	1.0	22	5	84.4	35.5
3.0SMCJ24	26.7	33.8	1.0	24	5	69.8	43.0
3.0SMCJ24A	26.7	30.7	1.0	24	5	77.2	38.9
3.0SMCJ26	28.9	36.6	1.0	26	5	64.4	46.6
3.0SMCJ26A	28.9	33.2	1.0	26	5	71.2	42.1
3.0SMCJ28	31.1	39.4	1.0	28	5	60.0	50.0
3.0SMCJ28A	31.1	35.8	1.0	28	5	66.0	45.4
3.0SMCJ30	33.3	42.2	1.0	30	5	56.0	53.5
3.0SMCJ30A	33.3	38.3	1.0	30	5	62.0	48.4
3.0SMCJ33	36.7	46.5	1.0	33	5	50.4	59.0
3.0SMCJ33A	36.7	42.2	1.0	33	5	56.2	53.3
3.0SMCJ36	40.0	50.7	1.0	36	5	46.6	64.3
3.0SMCJ36A	40.0	46.0	1.0	36	5	51.6	58.1
3.0SMCJ40	44.4	56.3	1.0	40	5	42.0	71.4
3.0SMCJ40A	44.4	51.1	1.0	40	5	46.4	64.5
3.0SMCJ43	47.8	60.5	1.0	43	5	39.2	76.7
3.0SMCJ43A	47.8	54.9	1.0	43	5	43.2	69.4
3.0SMCJ45	50.0	63.3	1.0	45	5	37.4	80.3
3.0SMCJ45A	50.0	57.5	1.0	45	5	41.2	72.7
3.0SMCJ48	53.3	67.5	1.0	48	5	35.0	85.5
3.0SMCJ48A	53.3	61.3	1.0	48	5	38.8	77.4
3.0SMCJ51	56.7	71.8	1.0	51	5	37.0	91.1
3.0SMCJ51A	56.7	65.2	1.0	51	5	36.4	82.4
3.0SMCJ54	60.0	76.0	1.0	54	5	31.2	96.3
3.0SMCJ54A	60.0	69.0	1.0	54	5	34.4	87.1



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)	I_T	V_{WM}	I_R	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)

3.0SMCJ Series, 3,000W, Case Type: SMC



3.0SMCJ58	64.4	81.6	1.0	58	5	39.2	103
3.0SMCJ58A	64.4	74.1	1.0	58	5	32.0	93.6
3.0SMCJ60	66.7	84.5	1.0	60	5	28.0	107
3.0SMCJ60A	66.7	76.7	1.0	60	5	31.0	96
3.0SMCJ64	71.1	90.1	1.0	64	5	26.4	114
3.0SMCJ64A	71.1	81.8	1.0	64	5	29.2	103
3.0SMCJ70	77.8	98.6	1.0	70	5	24.0	125
3.0SMCJ70A	77.8	89.5	1.0	70	5	26.6	113
3.0SMCJ75	83.3	105.7	1.0	75	5	22.4	134
3.0SMCJ75A	83.3	95.8	1.0	75	5	24.8	121
3.0SMCJ78	86.7	109.8	1.0	78	5	21.6	139
3.0SMCJ78A	86.7	99.7	1.0	78	5	22.8	126
3.0SMCJ85	94.4	119.2	1.0	85	5	19.8	151
3.0SMCJ85A	94.4	108.2	1.0	85	5	20.8	137
3.0SMCJ90	100	126.5	1.0	90	5	18.8	160
3.0SMCJ90A	100	115.5	1.0	90	5	20.6	146
3.0SMCJ100	111	141.0	1.0	100	5	16.6	179
3.0SMCJ100A	111	128.0	1.0	100	5	18.6	162
3.0SMCJ110	122	154.5	1.0	110	5	15.4	196
3.0SMCJ110A	122	140.5	1.0	110	5	16.8	177
3.0SMCJ120	133	169.0	1.0	120	5	14.0	214
3.0SMCJ120A	133	153.0	1.0	120	5	15.6	193
3.0SMCJ130	144	182.5	1.0	130	5	13.0	231
3.0SMCJ130A	144	165.5	1.0	130	5	14.4	209
3.0SMCJ150	167	211.5	1.0	150	5	11.2	268
3.0SMCJ150A	167	192.5	1.0	150	5	12.4	243
3.0SMCJ160	178	226.0	1.0	160	5	10.4	287
3.0SMCJ160A	178	205.0	1.0	160	5	11.6	259
3.0SMCJ170	189	239.5	1.0	170	5	9.8	304
3.0SMCJ170A	189	217.5	1.0	170	5	11.0	275
3.0SMCJ180	198	253.8	1.0	180	5	9.3	322
3.0SMCJ180A	198	230.4	1.0	180	5	10.3	292
3.0SMCJ190	209	267.9	1.0	190	5	8.8	340
3.0SMCJ190A	209	243.2	1.0	190	5	9.7	308
3.0SMCJ200	220	282.0	1.0	200	5	8.4	358
3.0SMCJ200A	220	256.0	1.0	200	5	9.3	324
3.0SMCJ210	231	296.1	1.0	210	5	7.8	376
3.0SMCJ210A	231	268.8	1.0	210	5	8.8	340
3.0SMCJ220	242	310.2	1.0	220	5	7.6	394
3.0SMCJ220A	242	281.6	1.0	220	5	8.4	356

Notes:

- (1) For bidirectional use suffix "C" or "CA"
- (2) "SMCJ" will be omitted on marking of the diode.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
	VBR (V)		It	VRWM	IR	IRSM	VRSM
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
							(% / °C)

3KE Series, 3,000 W, Case Type: DO-201



3KE13	11.7	14.3	10	10.5	1000	158	19.0	0.081
3KE13A	12.4	13.7	10	11.1	1000	164	18.2	0.081
3KE15	13.5	16.5	10	12.1	500	136	22.0	0.084
3KE15A	14.3	15.8	10	12.8	500	142	21.2	0.084
3KE16	14.4	17.6	10	12.9	200	128	23.5	0.086
3KE16A	15.2	16.8	10	13.6	200	134	22.5	0.086
3KE18	16.2	19.8	1.0	14.5	50	113	26.5	0.088
3KE18A	17.1	18.9	1.0	15.3	50	119	25.2	0.088
3KE20	18.0	22.0	1.0	16.2	10	103	29.1	0.090
3KE20A	19.0	21.0	1.0	17.1	10	108	27.7	0.090
3KE22	19.8	24.2	1.0	17.8	5.0	94	31.9	0.092
3KE22A	20.9	23.1	1.0	18.8	5.0	98	30.6	0.092
3KE24	21.6	26.4	1.0	19.4	5.0	86	34.7	0.094
3KE24A	22.8	25.2	1.0	20.5	5.0	90	33.2	0.094
3KE27	24.3	29.7	1.0	21.8	5.0	77	39.1	0.096
3KE27A	25.7	28.4	1.0	23.1	5.0	80	37.5	0.096
3KE30	27.0	33.0	1.0	24.3	5.0	69	43.5	0.097
3KE30A	28.5	31.5	1.0	25.6	5.0	72	41.4	0.097
3KE33	29.7	36.3	1.0	26.8	5.0	63	47.7	0.098
3KE33A	31.4	34.7	1.0	28.2	5.0	66	45.7	0.098
3KE36	32.4	39.6	1.0	29.1	5.0	58	52.0	0.099
3KE36A	34.2	37.8	1.0	30.8	5.0	60	49.9	0.099
3KE39	35.1	42.9	1.0	31.6	5.0	53	56.4	0.100
3KE39A	37.1	41.0	1.0	33.3	5.0	56	53.9	0.100
3KE43	38.7	47.3	1.0	34.8	5.0	48	61.9	0.101
3KE43A	40.9	45.2	1.0	36.8	5.0	51	59.3	0.101
3KE47	42.3	51.7	1.0	38.1	5.0	44	67.8	0.101
3KE47A	44.7	49.4	1.0	40.2	5.0	46	64.8	0.101
3KE51	45.9	56.1	1.0	41.3	5.0	41	73.5	0.102
3KE51A	48.5	53.6	1.0	43.6	5.0	43	70.1	0.102
3KE56	50.4	61.6	1.0	45.4	5.0	37	80.5	0.103
3KE56A	53.2	58.8	1.0	47.8	5.0	39	77.0	0.103
3KE62	55.8	68.2	1.0	50.2	5.0	34	89.0	0.104
3KE62A	58.9	65.1	1.0	53.0	5.0	35.4	85.0	0.104
3KE68	61.2	74.8	1.0	55.1	5.0	30.6	98.0	0.104
3KE68A	64.6	71.4	1.0	58.1	5.0	32.6	92.0	0.104
3KE75	67.5	82.5	1.0	60.7	5.0	27.8	108	0.105
3KE75A	71.3	78.8	1.0	64.1	5.0	29.2	103	0.105
3KE82	73.8	90.2	1.0	66.4	5.0	25.4	118	0.105
3KE82A	77.9	86.1	1.0	70.1	5.0	26.6	113	0.105
3KE91	81.9	100	1.0	73.7	5.0	22.8	131	0.106



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Coefficient of VBR
	VBR (V)	It	VRWM	IR	IRSM	VRSM	
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
							(% / °C)

3KE Series, 3,000 W, Case Type: DO-201



3KE91A	86.5	95.5	1.0	77.8	5.0	24.0	125	0.106
3KE100	90.0	110	1.0	81.0	5.0	20.8	144	0.106
3KE100A	95.0	105	1.0	85.5	5.0	22.0	137	0.106
3KE110	99.0	121	1.0	89.2	5.0	19.0	158	0.107
3KE110A	105	116	1.0	94.0	5.0	19.8	152	0.107
3KE120	108	132	1.0	97.2	5.0	17.4	173	0.107
3KE120A	114	126	1.0	102	5.0	18.2	165	0.107
3KE130	117	143	1.0	105	5.0	16.0	187	0.107
3KE130A	124	137	1.0	111	5.0	16.8	179	0.107
3KE150	135	165	1.0	121	5.0	14.0	215	0.108
3KE150A	143	158	1.0	128	5.0	14.4	207	0.108
3KE160	144	176	1.0	130	5.0	13.0	230	0.108
3KE160A	152	168	1.0	136	5.0	13.6	219	0.108
3KE170	153	187	1.0	138	5.0	12.4	244	0.108
3KE170A	162	179	1.0	145	5.0	12.8	234	0.108
3KE180	162	198	1.0	146	5.0	11.6	258	0.108
3KE180A	171	189	1.0	154	5.0	12.2	246	0.108
3KE200	180	220	1.0	162	5.0	10.4	287	0.108
3KE200A	190	210	1.0	171	5.0	11.0	274	0.108
3KE220	198	242	1.0	175	5.0	8.6	344	0.108
3KE220A	209	231	1.0	185	5.0	9.2	328	0.108
3KE250	225	275	1.0	202	5.0	10	360	0.110
3KE250A	237	263	1.0	214	5.0	10	344	0.110
3KE300	270	330	1.0	243	5.0	10	430	0.110
3KE300A	285	315	1.0	256	5.0	10	414	0.110
3KE350	315	385	1.0	284	5.0	8.0	504	0.110
3KE350A	332	368	1.0	300	5.0	8.0	482	0.110
3KE400	360	440	1.0	324	5.0	8.0	574	0.110
3KE400A	380	420	1.0	342	5.0	8.0	548	0.110
3KE440	396	484	1.0	356	5.0	4.8	631	0.110
3KE440A	418	462	1.0	376	5.0	5.0	602	0.110

Notes:

- (1) V_{BR} measured after I_t applied for 300 μ s., I_t = square wave pulse or equivalent
- (2) $V_F = 5.0$ Vmax., $I_F = 100$ A per 1/2 square or equivalent sine wave
PW = 8.3 ms, duty cycle = 4 pulses per minute maximum
- (3) For bidirectional use suffix "C" or "CA"
- (4) For bidirectional types having V_R of 20 V and under, the I_R limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T (Note 1)		I_T	Reverse Stand off Voltage V_{RM}	Maximum Reverse Leakage @ V_{RM} I_R	Maximum Peak Pulse Current (Note2) I_{PPM}	Maximum Clamping Voltage @ I_{PPM} V_C	Maximum Temperature Coefficient of V_{BR} (%/°C)
	Min.	Max.						
Unidirectional			(mA)	(V)	(μA)	(A)	(V)	

5KP Series, 5,000W, Case Type: D6



5KP5.0	6.40	7.30	50	5.0	5000	520	9.60	0.057
5KP5.0A	6.40	7.00	50	5.0	5000	543	9.20	0.057
5KP6.0	6.67	8.15	50	6.0	5000	439	11.4	0.061
5KP6.0A	6.67	7.37	50	6.0	5000	485	10.3	0.061
5KP6.5	7.22	8.82	50	6.5	2000	407	12.3	0.065
5KP6.5A	7.22	7.98	50	6.5	2000	447	11.2	0.065
5KP7.0	7.78	9.51	5.0	7.0	1000	378	13.3	0.068
5KP7.0A	7.78	8.60	5.0	7.0	1000	417	12.0	0.068
5KP7.5	8.33	10.2	5.0	7.5	250	350	14.3	0.073
5KP7.5A	8.33	9.21	5.0	7.5	250	388	12.9	0.073
5KP8.0	8.89	10.9	5.0	8.0	150	333	15.0	0.075
5KP8.0A	8.89	9.83	5.0	8.0	150	367	13.6	0.075
5KP8.5	9.44	11.5	5.0	8.5	50	314	15.9	0.078
5KP8.5A	9.44	10.4	5.0	8.5	50	347	14.4	0.078
5KP9.0	10.0	12.2	5.0	9.0	20	295	16.9	0.081
5KP9.0A	10.0	11.1	5.0	9.0	20	325	15.4	0.081
5KP10	11.1	13.6	5.0	10	15	266	18.8	0.084
5KP10A	11.1	12.3	5.0	10	15	294	17.0	0.084
5KP11	12.2	14.9	5.0	11	10	249	20.1	0.086
5KP11A	12.2	13.5	5.0	11	10	274	18.2	0.086
5KP12	13.3	16.3	5.0	12	10	227	22.0	0.088
5KP12A	13.3	14.7	5.0	12	10	251	19.9	0.088
5KP13	14.4	17.6	5.0	13	10	210	23.8	0.090
5KP13A	14.4	15.9	5.0	13	10	232	21.5	0.090
5KP14	15.6	19.1	5.0	14	10	194	25.8	0.092
5KP14A	15.6	17.2	5.0	14	10	215	23.2	0.092
5KP15	16.7	20.4	5.0	15	10	188	26.9	0.094
5KP15A	16.7	18.5	5.0	15	10	206	24.4	0.094
5KP16	17.8	21.8	5.0	16	10	176	28.8	0.096
5KP16A	17.8	19.7	5.0	16	10	192	26.0	0.096
5KP17	18.9	23.1	5.0	17	10	164	30.5	0.097
5KP17A	18.9	20.9	5.0	17	10	181	27.6	0.097
5KP18	20.0	24.4	5.0	18	10	155	32.2	0.098
5KP18A	20.0	22.1	5.0	18	10	172	29.2	0.098
5KP20	22.2	27.1	5.0	20	10	139	35.8	0.099
5KP20A	22.2	24.5	5.0	20	10	154	32.4	0.099
5KP22	24.4	29.8	5.0	22	10	127	39.4	0.100
5KP22A	24.4	26.9	5.0	22	10	141	35.5	0.100
5KP24	26.7	32.6	5.0	24	10	116	43.0	0.101
5KP24A	26.7	29.5	5.0	24	10	128	38.9	0.101
5KP26	28.9	35.3	5.0	26	10	107	46.6	0.101
5KP26A	28.9	31.9	5.0	26	10	119	42.1	0.101
5KP28	31.1	38.0	5.0	28	10	99	50.1	0.102
5KP28A	31.1	34.4	5.0	28	10	110	45.4	0.102
5KP30	33.3	40.7	5.0	30	10	93	53.5	0.103
5KP30A	33.3	36.8	5.0	30	10	103	48.4	0.103
5KP33	36.7	44.9	5.0	33	10	85	59.0	0.104
5KP33A	36.7	40.6	5.0	33	10	94	53.3	0.104



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T (Note 1)		I_T	Reverse Stand off Voltage V_{RM}	Maximum Reverse Leakage @ V_{RM} I_R	Maximum Peak Pulse Current (Note2) I_{PPM}	Maximum Clamping Voltage @ I_{PPM} V_C	Maximum Temperature Coefficient of V_{BR} (%/°C)
	Min.	Max.						
Unidirectional			(mA)	(V)	(μ A)	(A)	(V)	

5KP Series, 5,000W, Case Type: D6



5KP36	40.0	48.9	5.0	36	10	78	64.3	0.104
5KP36A	40.0	44.2	5.0	36	10	86	58.1	0.104
5KP40	44.4	54.3	5.0	40	10	70	71.4	0.105
5KP40A	44.4	49.1	5.0	40	10	78	64.5	0.105
5KP43	47.8	58.4	5.0	43	10	65	76.7	0.105
5KP43A	47.8	52.8	5.0	43	10	72	69.4	0.105
5KP45	50.0	61.1	5.0	45	10	62	80.3	0.106
5KP45A	50.0	55.3	5.0	45	10	69	72.7	0.106
5KP48	53.3	65.2	5.0	48	10	58	85.5	0.106
5KP48A	53.3	58.9	5.0	48	10	65	77.4	0.106
5KP51	56.7	69.3	5.0	51	10	55	91.1	0.107
5KP51A	56.7	62.7	5.0	51	10	61	82.4	0.107
5KP54	60.0	73.3	5.0	54	10	52	96.3	0.107
5KP54A	60.0	66.3	5.0	54	10	57	87.1	0.107
5KP56	62.2	76.1	5.0	56	10	50	100	0.107
5KP56A	62.2	68.8	5.0	56	10	55	91	0.107
5KP58	64.4	78.7	5.0	58	10	49	103	0.107
5KP58A	64.4	71.2	5.0	58	10	53	94	0.107
5KP60	66.7	81.5	5.0	60	10	47	107	0.108
5KP60A	66.7	73.7	5.0	60	10	52	97	0.108
5KP64	71.1	96.9	5.0	64	10	44	114	0.108
5KP64A	71.1	78.6	5.0	64	10	49	103	0.108
5KP70	77.6	95.1	5.0	70	10	40	125	0.108
5KP70A	77.6	86.0	5.0	70	10	44	113	0.108
5KP75	83.3	102	5.0	75	10	37	134	0.108
5KP75A	83.3	92.1	5.0	75	10	41	121	0.108
5KP78	86.7	106	5.0	78	10	36	139	0.108
5KP78A	86.7	95.8	5.0	78	10	40	126	0.108
5KP85	94.4	115	5.0	85	10	33	151	0.108
5KP85A	94.4	104	5.0	85	10	36	137	0.110
5KP90	100	122	5.0	90	10	31	160	0.110
5KP90A	100	111	5.0	90	10	34	146	0.110
5KP100	111	136	5.0	100	10	28	179	0.110
5KP100A	111	123	5.0	100	10	31	162	0.110
5KP110	122	149	5.0	110	10	26	196	0.112
5KP110A	122	135	5.0	110	10	28	177	0.112
5KP120	133	163	5.0	120	10	24	211	0.112
5KP120A	133	147	5.0	120	10	26	192	0.112
5KP150	167	204	5.0	150	10	19	263	0.112
5KP150A	167	184	5.0	150	10	21	238	0.112
5KP160	178	217	5.0	160	10	18	281	0.114
5KP160A	178	196	5.0	160	10	19	263	0.114
5KP180	200	244	5.0	180	10	16	316	0.114
5KP180A	200	221	5.0	180	10	17	290	0.114

Notes: (1) V_{BR} measured after I_T applied for 300 μ s., I_T = square wave pulse or equivalent

(2) For bidirectional use suffix "C" or "CA"

(3) V_F = 3.5 V max. for devices of V_R < 100 V, and V_F = 5 V max. for devices of V_R > 100 V

(4) For bidirectional devices having V_R of 10 V and under, the I_R limit is doubled



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I _R (Note 1)		Stand - off Reverse Voltage	Maximum Reverse Leakage @ V _{RM}	Maximum Reverse Current	Maximum Clamping Voltage @ I _{RSM}	Maximum Temperature Coefficient
	V _{BR} (V)	I _R	V _{RM}	I _R	I _{RSM}	V _{RSM}	αT (Note 2)
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V) (10 ⁻⁴ / °C)

BZW50 Series, 5,000W, Case Type: D6



BZW50-10	11.1	13.6	1.0	10	5.0	266	18.8	7.8
BZW50-12	13.3	16.3	1.0	12	5.0	227	22.0	8.4
BZW50-15	16.6	20.4	1.0	15	5.0	186	26.9	8.8
BZW50-18	20.0	24.4	1.0	18	5.0	155	32.2	9.2
BZW50-22	24.4	29.8	1.0	22	5.0	127	39.4	9.6
BZW50-27	30.0	36.6	1.0	27	5.0	103	48.3	.9.8
BZW50-33	36.6	44.7	1.0	33	5.0	85	59.0	10
BZW50-39	43.3	53.0	1.0	39	5.0	72	69.4	10.1
BZW50-47	52.0	63.6	1.0	47	5.0	60.1	83.2	10.3
BZW50-56	62.2	76.0	1.0	56	5.0	50	99.6	10.4
BZW50-68	75.6	92.4	1.0	68	5.0	41	121	10.5
BZW50-82	91.0	111	1.0	82	5.0	34	145	10.6
BZW50-100	111	136	1.0	100	5.0	28	179	10.7
BZW50-120	133	163	1.0	120	5.0	23	215	10.8
BZW50-150	166	204	1.0	150	5.0	19	269	10.8
BZW50-180	200	244	1.0	180	5.0	16	322	10.8

Notes:

- (1) Pulse test : $t_p < 50$ ms
- (2) $\Delta V_{BR} = \alpha T * V_{BR}$ (25 $^\circ C$)
- (3) For bidirectional use suffix "B" (Axial Lead)



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T (Note 1)		Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I_{PPM}	Maximum Temperature Coefficient of V_{BR} (%/°C)
	V_{BR} (V)	I_T	V_{RM}	I_R	I_{PPM}	V_C	
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)

S5KP Series, 5,000W, Case Type: D²PAK



S5KP5.0	6.40	7.30	50	5.0	5000	520	9.60	0.057
S5KP5.0A	6.40	7.00	50	5.0	5000	543	9.20	0.057
S5KP6.0	6.67	8.15	50	6.0	5000	439	11.4	0.061
S5KP6.0A	6.67	7.37	50	6.0	5000	485	10.3	0.061
S5KP6.5	7.22	8.82	50	6.5	2000	407	12.3	0.065
S5KP6.5A	7.22	7.98	50	6.5	2000	447	11.2	0.065
S5KP7.0	7.78	9.51	5.0	7.0	1000	378	13.3	0.068
S5KP7.0A	7.78	8.60	5.0	7.0	1000	417	12.0	0.068
S5KP7.5	8.33	10.2	5.0	7.5	250	350	14.3	0.073
S5KP7.5A	8.33	9.21	5.0	7.5	250	388	12.9	0.073
S5KP8.0	8.89	10.9	5.0	8.0	150	333	15.0	0.075
S5KP8.0A	8.89	9.83	5.0	8.0	150	367	13.6	0.075
S5KP8.5	9.44	11.5	5.0	8.5	50	314	15.9	0.078
S5KP8.5A	9.44	10.4	5.0	8.5	50	347	14.4	0.078
S5KP9.0	10.0	12.2	5.0	9.0	20	295	16.9	0.081
S5KP9.0A	10.0	11.1	5.0	9.0	20	325	15.4	0.081
S5KP10	11.1	13.6	5.0	10	15	266	18.8	0.084
S5KP10A	11.1	12.3	5.0	10	15	294	17.0	0.084
S5KP11	12.2	14.9	5.0	11	10	249	20.1	0.086
S5KP11A	12.2	13.5	5.0	11	10	274	18.2	0.086
S5KP12	13.3	16.3	5.0	12	10	227	22.0	0.088
S5KP12A	13.3	14.7	5.0	12	10	251	19.9	0.088
S5KP13	14.4	17.6	5.0	13	10	210	23.8	0.090
S5KP13A	14.4	15.9	5.0	13	10	232	21.5	0.090
S5KP14	15.6	19.1	5.0	14	10	194	25.8	0.092
S5KP14A	15.6	17.2	5.0	14	10	215	23.2	0.092
S5KP15	16.7	20.4	5.0	15	10	188	26.9	0.094
S5KP15A	16.7	18.5	5.0	15	10	206	24.4	0.094
S5KP16	17.8	21.8	5.0	16	10	176	28.8	0.096
S5KP16A	17.8	19.7	5.0	16	10	192	26.0	0.096
S5KP17	18.9	23.1	5.0	17	10	164	30.5	0.097
S5KP17A	18.9	20.9	5.0	17	10	181	27.6	0.097
S5KP18	20.0	24.4	5.0	18	10	155	32.2	0.098
S5KP18A	20.0	22.1	5.0	18	10	172	29.2	0.098
S5KP20	22.2	27.1	5.0	20	10	139	35.8	0.099
S5KP20A	22.2	24.5	5.0	20	10	154	32.4	0.099
S5KP22	24.4	29.8	5.0	22	10	127	39.4	0.100
S5KP22A	24.4	26.9	5.0	22	10	141	35.5	0.100
S5KP24	26.7	32.6	5.0	24	10	116	43.0	0.101
S5KP24A	26.7	29.5	5.0	24	10	128	38.9	0.101
S5KP26	28.9	35.3	5.0	26	10	107	46.6	0.101
S5KP26A	28.9	31.9	5.0	26	10	119	42.1	0.101
S5KP28	31.1	38.0	5.0	28	10	99	50.1	0.102
S5KP28A	31.1	34.4	5.0	28	10	110	45.4	0.102
S5KP30	33.3	40.7	5.0	30	10	93	53.5	0.103
S5KP30A	33.3	36.8	5.0	30	10	103	48.4	0.103
S5KP33	36.7	44.9	5.0	33	10	85	59.0	0.104
S5KP33A	36.7	40.6	5.0	33	10	94	53.3	0.104
S5KP36	40.0	48.9	5.0	36	10	78	64.3	0.104
S5KP36A	40.0	44.2	5.0	36	10	86	58.1	0.104
S5KP40	44.4	54.3	5.0	40	10	70	71.4	0.105
S5KP40A	44.4	49.1	5.0	40	10	78	64.5	0.105



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T (Note 1)		Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I_{PPM}	Maximum Temperature Coefficient of V_{BR} (%/°C)
	V_{BR} (V)	I_T	V_{RM}	I_R	I_{PPM}	V_C	
Unidirectional	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)

S5KP Series, 5,000W, Case Type: D²PAK



S5KP43	47.8	58.4	5.0	43	10	65	76.7	0.105
S5KP43A	47.8	52.8	5.0	43	10	72	69.4	0.105
S5KP45	50.0	61.1	5.0	45	10	62	80.3	0.106
S5KP45A	50.0	55.3	5.0	45	10	69	72.7	0.106
S5KP48	53.3	65.2	5.0	48	10	58	85.5	0.106
S5KP48A	53.3	58.9	5.0	48	10	65	77.4	0.106
S5KP51	56.7	69.3	5.0	51	10	55	91.1	0.107
S5KP51A	56.7	62.7	5.0	51	10	61	82.4	0.107
S5KP54	60.0	73.3	5.0	54	10	52	96.3	0.107
S5KP54A	60.0	66.3	5.0	54	10	57	87.1	0.107
S5KP56	62.2	76.1	5.0	56	10	50	100	0.107
S5KP56A	62.2	68.8	5.0	56	10	55	91	0.107
S5KP58	64.4	78.7	5.0	58	10	49	103	0.107
S5KP58A	64.4	71.2	5.0	58	10	53	94	0.107
S5KP60	66.7	81.5	5.0	60	10	47	107	0.108
S5KP60A	66.7	73.7	5.0	60	10	52	97	0.108
S5KP64	71.1	96.9	5.0	64	10	44	114	0.108
S5KP64A	71.1	78.6	5.0	64	10	49	103	0.108
S5KP70	77.6	95.1	5.0	70	10	40	125	0.108
S5KP70A	77.6	86.0	5.0	70	10	44	113	0.108
S5KP75	83.3	102	5.0	75	10	37	134	0.108
S5KP75A	83.3	92.1	5.0	75	10	41	121	0.108
S5KP78	86.7	106	5.0	78	10	36	139	0.108
S5KP78A	86.7	95.8	5.0	78	10	40	126	0.108
S5KP85	94.4	115	5.0	85	10	33	151	0.108
S5KP85A	94.4	104	5.0	85	10	36	137	0.110
S5KP90	100	122	5.0	90	10	31	160	0.110
S5KP90A	100	111	5.0	90	10	34	146	0.110
S5KP100	111	136	5.0	100	10	28	179	0.110
S5KP100A	111	123	5.0	100	10	31	162	0.110
S5KP110	122	149	5.0	110	10	26	196	0.112
S5KP110A	122	135	5.0	110	10	28	177	0.112
S5KP120	133	163	5.0	120	10	24	211	0.112
S5KP120A	133	147	5.0	120	10	26	192	0.112
S5KP150	167	204	5.0	150	10	19	263	0.112
S5KP150A	167	184	5.0	150	10	21	238	0.112
S5KP160	178	217	5.0	160	10	18	281	0.114
S5KP160A	178	196	5.0	160	10	19	263	0.114
S5KP170	189	231	5.0	170	10	17	298	0.114
S5KP170A	189	209	5.0	170	10	18	278	0.114
S5KP180	200	244	5.0	180	10	16	316	0.114
S5KP180A	200	221	5.0	180	10	17	290	0.114

Notes:

- (1) V_{BR} measured after I_T applied for 300 μ s., I_T = square wave pulse or equivalent
- (2) For bidirectional use suffix "C" or "CA"
- (3) V_F = 3.5 V max. for devices of V_R < 100 V, and V_F = 5 V max. for devices of V_R > 100 V
- (4) For bidirectional devices having V_R of 10 V and under, the I_R limit is doubled
- (5) "S KP " will be omitted on marking of the diode

Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_T			Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current at 10/1000ms	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		I_T	V_{RWM}	I_R	I_R ($T_C=175^\circ C$)	I_{PPM}	V_C
Unidirectional	Min.	Max.	(mA)	(V)	(mA)	(mA)	(A)	(V)

SM8S Series, 6,600W, Case Type: D²PAK



SM8S10	11.1	13.6	5.0	10	15	250	351	18.8
SM8S10A	11.1	12.3	5.0	10	15	250	388	17.0
SM8S11	12.2	14.9	5.0	11	10	150	328	20.1
SM8S11A	12.2	13.5	5.0	11	10	150	363	18.2
SM8S12	13.3	16.3	5.0	12	10	150	300	22.0
SM8S12A	13.3	14.7	5.0	12	10	150	332	19.9
SM8S13	14.4	17.6	5.0	13	10	150	277	23.8
SM8S13A	14.4	15.9	5.0	13	10	150	307	21.5
SM8S14	15.6	19.1	5.0	14	10	150	256	25.8
SM8S14A	15.6	17.2	5.0	14	10	150	284	23.2
SM8S15	16.7	20.4	5.0	15	10	150	245	26.9
SM8S15A	16.7	18.5	5.0	15	10	150	270	24.4
SM8S16	17.8	21.8	5.0	16	10	150	229	28.8
SM8S16A	17.8	19.7	5.0	16	10	150	254	26.0
SM8S17	18.9	23.1	5.0	17	10	150	216	30.5
SM8S17A	18.9	20.9	5.0	17	10	150	239	27.6
SM8S18	20.0	24.4	5.0	18	10	150	205	32.2
SM8S18A	20.0	22.1	5.0	18	10	150	226	29.2
SM8S20	22.2	27.1	5.0	20	10	150	184	35.8
SM8S20A	22.2	24.5	5.0	20	10	150	204	32.4
SM8S22	24.4	29.8	5.0	22	10	150	168	39.4
SM8S22A	24.4	26.9	5.0	22	10	150	168	35.5
SM8S24	26.7	32.6	5.0	24	10	150	153	43.0
SM8S24A	26.7	29.5	5.0	24	10	150	170	38.9
SM8S26	28.9	35.3	5.0	26	10	150	142	46.6
SM8S26A	28.9	31.9	5.0	26	10	150	157	42.1
SM8S28	31.1	38.0	5.0	28	10	150	132	50.1
SM8S28A	31.1	34.4	5.0	28	10	150	145	45.4
SM8S30	33.3	40.7	5.0	30	10	150	123	53.5
SM8S30A	33.3	36.8	5.0	30	10	150	136	48.4
SM8S33	36.7	44.9	5.0	33	10	150	112	59.0
SM8S33A	36.7	40.6	5.0	33	10	150	124	53.3
SM8S36	40.0	48.9	5.0	36	10	150	103	64.3
SM8S36A	40.0	44.2	5.0	36	10	150	114	58.1
SM8S40	44.4	54.3	5.0	40	10	150	92	71.4
SM8S40A	44.4	49.1	5.0	40	10	150	102	64.5
SM8S43	47.8	58.4	5.0	43	10	150	86	76.7
SM8S43A	47.8	52.8	5.0	43	10	150	95	69.4

Notes:

- (1) For all types maximum $V_F = 1.8V$ at $I_F = 100A$ measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum
- (2) "SM S" will be omitted on marking of the diode.
- (3) For bidirectional use suffix "C" or "CA"



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

TYPE	Breakdown Voltage @ I_T (Note 1)		Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I_{PPM}	Maximum Temperature Coefficient of V_{BR} (%/°C)
	V_{BR} (V)		V_{RM}	I_R	I_{PPM}	V_C	
	Min.	Max.	(mA)	(V)	(μ A)	(A)	

10KP Series, 10,000 W, Case Type: D6



10KP11	12.2	14.9	5	11	10000	498	20.1	0.086
10KP11A	12.2	13.5	5	11	10000	549	18.2	0.086
10KP12	13.3	16.3	5	12	10000	455	22.0	0.088
10KP12A	13.3	14.7	5	12	10000	503	19.9	0.088
10KP13	14.4	17.6	5	13	4000	420	23.8	0.090
10KP13A	14.4	15.9	5	13	4000	465	21.5	0.090
10KP14	15.6	19.1	5	14	2000	388	25.8	0.092
10KP14A	15.6	17.2	5	14	2000	431	23.2	0.092
10KP15	16.7	20.4	5	15	500	372	26.9	0.094
10KP15A	16.7	18.5	5	15	500	410	24.4	0.094
10KP16	17.8	21.8	5	16	300	347	28.8	0.096
10KP16A	17.8	19.7	5	16	300	385	26.0	0.096
10KP17	18.9	23.1	5	17	100	328	30.5	0.097
10KP17A	18.9	20.9	5	17	100	362	27.6	0.097
10KP18	20.0	24.4	5	18	40	311	32.2	0.098
10KP18A	20.0	22.1	5	18	40	342	29.2	0.098
10KP20	22.2	27.1	5	20	30	279	35.8	0.099
10KP20A	22.2	24.5	5	20	30	309	32.4	0.099
10KP22	24.4	29.8	5	22	20	254	39.4	0.100
10KP22A	24.4	26.9	5	22	20	282	35.5	0.100
10KP24	26.7	32.6	5	24	20	233	43.0	0.101
10KP24A	26.7	29.5	5	24	20	257	38.9	0.101
10KP26	28.9	35.3	5	26	20	215	46.6	0.101
10KP26A	28.9	31.9	5	26	20	238	42.1	0.101
10KP28	31.1	38.0	5	28	20	200	50.1	0.102
10KP28A	31.1	34.4	5	28	20	220	45.4	0.102
10KP30	33.3	40.7	5	30	20	187	53.5	0.103
10KP30A	33.3	36.8	5	30	20	207	48.4	0.103
10KP33	36.7	44.9	5	33	20	169	59.0	0.104
10KP33A	36.7	40.6	5	33	20	188	53.3	0.104
10KP36	40.0	48.9	5	36	20	156	64.3	0.104
10KP36A	40.0	44.2	5	36	20	172	58.1	0.104
10KP40	44.4	54.3	5	40	20	140	71.4	0.105
10KP40A	44.4	49.1	5	40	20	155	64.5	0.105
10KP43	47.8	58.4	5	43	20	130	76.7	0.105
10KP43A	47.8	52.8	5	43	20	144	69.4	0.105
10KP45	50.0	61.1	5	45	20	125	80.3	0.106
10KP45A	50.0	55.3	5	45	20	138	72.7	0.106
10KP48	53.3	65.2	5	48	20	117	85.5	0.106
10KP48A	53.3	58.9	5	48	20	129	77.4	0.106
10KP51	56.7	69.3	5	51	20	110	91.1	0.107
10KP51A	56.7	62.7	5	51	20	121	82.4	0.107



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

TYPE	Breakdown Voltage @ I_T (Note 1)		Reverse Stand off Voltage	Maximum Reverse Leakage @ V_{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I_{PPM}	Maximum Temperature Coefficient of V_{BR} (%/°C)
	V_{BR} (V)		V_{RM}	I_R	I_{PPM}	V_C	
	Min.	Max.	(mA)	(V)	(μ A)	(A)	

10KP Series, 10,000 W, Case Type: D6



10KP54	60.0	73.3	5	54	20	104	96.3	0.107
10KP54A	60.0	66.3	5	54	20	115	87.1	0.107
10KP56	62.2	76.1	5	56	20	100	100	0.107
10KP56A	62.2	68.8	5	56	20	110	91	0.107
10KP58	64.4	78.7	5	58	20	97	103	0.107
10KP58A	64.4	71.2	5	58	20	106	94	0.107
10KP60	66.7	81.5	5	60	20	93	107	0.108
10KP60A	66.7	73.7	5	60	20	103	97	0.108
10KP64	71.1	96.9	5	64	20	88	114	0.108
10KP64A	71.1	78.6	5	64	20	97	103	0.108
10KP70	77.6	95.1	5	70	20	80	125	0.108
10KP70A	77.6	86.0	5	70	20	88	113	0.108
10KP75	83.3	102	5	75	20	75	134	0.108
10KP75A	83.3	92.1	5	75	20	83	121	0.108
10KP78	86.7	106	5	78	20	72	139	0.108
10KP78A	86.7	95.8	5	78	20	79	126	0.108
10KP85	94.4	115	5	85	20	66	151	0.108
10KP85A	94.4	104	5	85	20	73	137	0.110
10KP90	100	122	5	90	20	63	160	0.110
10KP90A	100	111	5	90	20	68	146	0.110
10KP100	111	136	5	100	20	56	179	0.110
10KP100A	111	123	5	100	20	62	162	0.110
10KP110	122	149	5	110	20	51	196	0.112
10KP110A	122	135	5	110	20	56	177	0.112
10KP120	133	163	5	120	20	47	211	0.112
10KP120A	133	147	5	120	20	52	192	0.112
10KP150	167	204	5	150	20	38	263	0.112
10KP150A	167	184	5	150	20	42	238	0.112
10KP160	178	217	5	160	20	36	281	0.114
10KP160A	178	196	5	160	20	38	263	0.114
10KP170	189	231	5	170	20	34	298	0.114
10KP170A	189	209	5	170	20	36	274	0.114
10KP180	200	244	5	180	20	32	316	0.114
10KP180A	200	221	5	180	20	34	290	0.114

Notes:

- (1) V_{BR} measured after I_T applied for 300 μ s., I_T = square wave pulse or equivalent.
- (2) V_F = 3.5 Volts max. for devices of V_R < 100 V, and V_F = 5 Volts max. for devices of V_R > 100 V.
- (3) For Bi-directional devices having V_R of 20 Volts and under the I_R limit is doubled.



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ I_T		Maximum Reverse Leakage @ V_R	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation of V_{BR}
(Unidirectional)	(Bidirectional)	V_R (V)	V_{BR} (V) Min.	I_T (mA)	I_R (μ A)	V_C (V)	I_{PP} (A)	(mV/°C)

15KP Series, 15,000 W, Case Type: D6



15KP17	15KP17C	17	18.9	50	5,000	32.2	464	19
15KP17A	15KP17CA	17	18.9	50	5,000	29.3	512	17
15KP18	15KP18C	18	20.0	50	5,000	34.2	439	20
15KP18A	15KP18CA	18	20.0	50	5,000	30.9	485	18
15KP20	15KP20C	20	22.2	20	1,500	37.9	396	24
15KP20A	15KP20CA	20	22.2	20	1,500	34.3	437	21
15KP22	15KP22C	22	24.4	10	500	41.1	365	27
15KP22A	15KP22CA	22	24.4	10	500	37.1	404	24
15KP24	15KP24C	24	26.7	5.0	150	45.0	333	30
15KP24A	15KP24CA	24	26.7	5.0	150	40.7	369	27
15KP26	15KP26C	26	28.9	5.0	50	48.7	308	32
15KP26A	15KP26CA	26	28.9	5.0	50	44.0	341	29
15KP28	15KP28C	28	31.1	5.0	25	52.4	286	35
15KP28A	15KP28CA	28	31.1	5.0	25	47.5	316	31
15KP30	15KP30C	30	33.3	5.0	15	56.2	267	37
15KP30A	15KP30CA	30	33.3	5.0	15	50.7	296	33
15KP33	15KP33C	33	36.7	5.0	10	60.6	248	42
15KP33A	15KP33CA	33	36.7	5.0	10	54.8	274	38
15KP36	15KP36C	36	40.0	5.0	10	66.0	227	46
15KP36A	15KP36CA	36	40.0	5.0	10	59.7	251	41
15KP40	15KP40C	40	44.4	5.0	10	72.8	206	51
15KP40A	15KP40CA	40	44.4	5.0	10	65.8	228	46
15KP43	15KP43C	43	47.8	5.0	10	77.1	195	55
15KP43A	15KP43CA	43	47.8	5.0	10	69.7	215	50
15KP45	15KP45C	45	50.0	5.0	10	80.7	186	57
15KP45A	15KP45CA	45	50.0	5.0	10	73.0	205	52
15KP48	15KP48C	48	53.3	5.0	10	85.9	175	62
15KP48A	15KP48CA	48	53.3	5.0	10	77.7	193	56
15KP51	15KP51C	51	56.7	5.0	10	91.5	164	66
15KP51A	15KP51CA	51	56.7	5.0	10	82.5	181	60
15KP54	15KP54C	54	60.0	5.0	10	96.8	155	70
15KP54A	15KP54CA	54	60.0	5.0	10	87.5	171	63
15KP58	15KP58C	58	64.4	5.0	10	104	144	76
15KP58A	15KP58CA	58	64.4	5.0	10	94	160	68
15KP60	15KP60C	60	66.7	5.0	10	107	140	78
15KP60A	15KP60CA	60	66.7	5.0	10	97.3	154	70
15KP64	15KP64C	64	71.1	5.0	10	115	130	84
15KP64A	15KP64CA	64	71.1	5.0	10	104	144	76
15KP70	15KP70C	70	77.8	5.0	10	126	119	92
15KP70A	15KP70CA	70	77.8	5.0	10	114	132	83
15KP75	15KP75C	75	83.3	5.0	10	135	111	100
15KP75A	15KP75CA	75	83.3	5.0	10	122	123	89



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ I_T		Maximum Reverse Leakage @ V_R	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation of V_{BR}
(Unidirectional)	(Bidirectional)	V_R (V)	V_{BR} (V) Min.	I_T (mA)	I_R (μA)	V_C (V)	I_{PP} (A)	(mV/°C)

15KP Series, 15,000 W, Case Type: D6



15KP78	15KP78C	78	86.7	5.0	10	140	107	104
15KP78A	15KP78CA	78	86.7	5.0	10	126	119	93
15KP85	15KP85C	85	94.4	5.0	10	152	99	113
15KP85A	15KP85CA	85	94.4	5.0	10	137	109	102
15KP90	15KP90C	90	100	5.0	10	160	94	120
15KP90A	15KP90CA	90	100	5.0	10	146	103	110
15KP100	15KP100C	100	111	5.0	10	179	84	134
15KP100A	15KP100CA	100	111	5.0	10	162	93	123
15KP110	15KP110C	110	122	5.0	10	196	77	147
15KP110A	15KP110CA	110	122	5.0	10	178	84	133
15KP120	15KP120C	120	133	5.0	10	214	70	161
15KP120A	15KP120CA	120	133	5.0	10	193	78	146
15KP130	15KP130C	130	144	5.0	10	231	65	174
15KP130A	15KP130CA	130	144	5.0	10	209	72	158
15KP150	15KP150C	150	167	5.0	10	268	56	202
15KP150A	15KP150CA	150	167	5.0	10	243	62	184
15KP160	15KP160C	160	178	5.0	10	287	52	216
15KP160A	15KP160CA	160	178	5.0	10	259	58	196
15KP170	15KP170C	170	189	5.0	10	304	49	229
15KP170A	15KP170CA	170	189	5.0	10	275	55	208
15KP180	15KP180C	180	200	5.0	10	321	47	242
15KP180A	15KP180CA	180	200	5.0	10	287	52	220
15KP200	15KP200C	200	222	5.0	10	356	42	296
15KP200A	15KP200CA	200	222	5.0	10	325	46	274
15KP220	15KP220C	220	245	5.0	10	393	38	297
15KP220A	15KP220CA	220	245	5.0	10	347	43	273
15KP240	15KP240C	240	267	5.0	10	428	35	324
15KP240A	15KP240CA	240	267	5.0	10	387	39	300

Note:

Suffix "A" denotes 5% tolerance device , no suffix denotes a 10% tolerance device



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage @ I_T			Maximum Reverse Leakage @ V_R	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation
		V_{WM}	V_{BR} (V)		I_T	I_R	V_C	I_{PP}	of V_{BR}
		(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)	(mV/°C)

R15KP Series, 15,000 W, Case Type: 5R



R15KP17	R15KP17C	17	18.9	23.1	50	5,000	32.2	464	19
R15KP17A	R15KP17CA	17	18.9	20.9	50	5,000	29.3	512	17
R15KP18	R15KP18C	18	20.0	24.4	50	5,000	34.2	439	20
R15KP18A	R15KP18CA	18	20.0	22.1	50	5,000	30.9	485	18
R15KP20	R15KP20C	20	22.2	27.1	20	1,500	37.9	396	24
R15KP20A	R15KP20CA	20	22.2	24.5	20	1,500	34.3	437	21
R15KP22	R15KP22C	22	24.4	29.8	10	500	41.1	365	27
R15KP22A	R15KP22CA	22	24.4	26.9	10	500	37.1	404	24
R15KP24	R15KP24C	24	26.7	32.6	5.0	150	45.0	333	30
R15KP24A	R15KP24CA	24	26.7	29.5	5.0	150	40.7	369	27
R15KP26	R15KP26C	26	28.9	35.3	5.0	50	48.7	308	32
R15KP26A	R15KP26CA	26	28.9	31.9	5.0	50	44.0	341	29
R15KP28	R15KP28C	28	31.1	38.0	5.0	25	52.4	286	35
R15KP28A	R15KP28CA	28	31.1	34.4	5.0	25	47.5	316	31
R15KP30	R15KP30C	30	33.3	40.7	5.0	15	56.2	267	37
R15KP30A	R15KP30CA	30	33.3	36.8	5.0	15	50.7	296	33
R15KP33	R15KP33C	33	36.7	44.9	5.0	10	60.6	248	42
R15KP33A	R15KP33CA	33	36.7	40.6	5.0	10	54.8	274	38
R15KP36	R15KP36C	36	40.0	48.9	5.0	10	66.0	227	46
R15KP36A	R15KP36CA	36	40.0	44.2	5.0	10	59.7	251	41
R15KP40	R15KP40C	40	44.4	54.3	5.0	10	72.8	206	51
R15KP40A	R15KP40CA	40	44.4	49.1	5.0	10	65.8	228	46
R15KP43	R15KP43C	43	47.8	58.4	5.0	10	77.1	195	55
R15KP43A	R15KP43CA	43	47.8	52.8	5.0	10	69.7	215	50
R15KP45	R15KP45C	45	50.0	61.1	5.0	10	80.7	186	57
R15KP45A	R15KP45CA	45	50.0	55.3	5.0	10	73.0	205	52
R15KP48	R15KP48C	48	53.3	65.1	5.0	10	85.9	175	62
R15KP48A	R15KP48CA	48	53.3	58.9	5.0	10	77.7	193	56
R15KP51	R15KP51C	51	56.7	69.3	5.0	10	91.5	164	66
R15KP51A	R15KP51CA	51	56.7	62.7	5.0	10	82.5	181	60
R15KP54	R15KP54C	54	60.0	73.3	5.0	10	96.8	155	70
R15KP54A	R15KP54CA	54	60.0	66.3	5.0	10	87.5	171	63
R15KP58	R15KP58C	58	64.4	78.7	5.0	10	104	144	76
R15KP58A	R15KP58CA	58	64.4	71.2	5.0	10	94	160	68
R15KP60	R15KP60C	60	66.7	81.5	5.0	10	107	140	78
R15KP60A	R15KP60CA	60	66.7	73.7	5.0	10	97.3	154	70
R15KP64	R15KP64C	64	71.1	86.9	5.0	10	115	130	84
R15KP64A	R15KP64CA	64	71.1	78.6	5.0	10	104	144	76
R15KP70	R15KP70C	70	77.8	95.1	5.0	10	126	119	92
R15KP70A	R15KP70CA	70	77.8	86.0	5.0	10	114	132	83
R15KP75	R15KP75C	75	83.3	102	5.0	10	135	111	100
R15KP75A	R15KP75CA	75	83.3	92.1	5.0	10	122	123	89



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage @ I_T			Maximum Reverse Leakage @ V_R	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation
		V_{WM}	V_{BR} (V)		I_T	I_R	V_C	I_{PP}	of V_{BR}
		(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)	(mV/°C)

R15KP Series, 15,000 W, Case Type: 5R



R15KP78	R15KP78C	78	86.7	106	5.0	10	140	107	104
R15KP78A	R15KP78CA	78	86.7	95.8	5.0	10	126	119	93
R15KP85	R15KP85C	85	94.4	115	5.0	10	152	99	113
R15KP85A	R15KP85CA	85	94.4	104	5.0	10	137	109	102
R15KP90	R15KP90C	90	100	122	5.0	10	160	94	120
R15KP90A	R15KP90CA	90	100	111	5.0	10	146	103	110
R15KP100	R15KP100C	100	111	136	5.0	10	179	84	134
R15KP100A	R15KP100CA	100	111	123	5.0	10	162	93	123
R15KP110	R15KP110C	110	122	149	5.0	10	196	77	147
R15KP110A	R15KP110CA	110	122	135	5.0	10	178	84	133
R15KP120	R15KP120C	120	133	163	5.0	10	214	70	161
R15KP120A	R15KP120CA	120	133	147	5.0	10	193	78	146
R15KP130	R15KP130C	130	144	176	5.0	10	231	65	174
R15KP130A	R15KP130CA	130	144	159	5.0	10	209	72	158
R15KP150	R15KP150C	150	167	204	5.0	10	268	56	202
R15KP150A	R15KP150CA	150	167	185	5.0	10	243	62	184
R15KP160	R15KP160C	160	178	218	5.0	10	287	52	216
R15KP160A	R15KP160CA	160	178	197	5.0	10	259	58	196
R15KP170	R15KP170C	170	189	231	5.0	10	304	49	229
R15KP170A	R15KP170CA	170	189	209	5.0	10	275	55	208
R15KP180	R15KP180C	180	200	244	5.0	10	321	47	242
R15KP180A	R15KP180CA	180	200	221	5.0	10	287	52	220
R15KP200	R15KP200C	200	222	271	5.0	10	356	42	296
R15KP200A	R15KP200CA	200	222	245	5.0	10	325	46	274
R15KP220	R15KP220C	220	245	299	5.0	10	393	38	297
R15KP220A	R15KP220CA	220	245	271	5.0	10	347	43	273
R15KP240	R15KP240C	240	267	326	5.0	10	428	35	324
R15KP240A	R15KP240CA	240	267	295	5.0	10	387	39	300

Note:

Suffix "A" denotes 5% tolerance device , no suffix denotes a 10% tolerance device



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation
(Unidirectional)	(Bidirectional)	V_{WM} (V)	V_{BR} (V) Min.	Max.	$I_{(BR)}$ (mA)	I_R (μA)	V_C (V)	I_{PP} (A)	of V_{BR} (mV/°C)

30KP Series, 30,000 W, Case Type: D6



30KP22	30KP22C	22	24.4	29.8	50	10000	41.1	730	27
30KP22A	30KP22CA	22	24.4	26.9	50	10000	37.1	808	24
30KP24	30KP24C	24	26.7	32.6	50	10000	45.0	666	30
30KP24A	30KP24CA	24	26.7	29.5	50	10000	40.7	738	27
30KP26	30KP26C	26	28.9	35.3	50	10000	48.7	616	32
30KP26A	30KP26CA	26	28.9	31.9	50	10000	44.0	682	29
30KP28	30KP28C	28	31.1	38.0	50	8000	52.4	572	35
30KP28A	30KP28CA	28	31.1	34.4	50	8000	47.5	632	31
30KP30	30KP30C	30	33.3	40.7	50	8000	56.2	534	37
30KP30A	30KP30CA	30	33.3	36.9	50	8000	50.7	592	33
30KP33	30KP33C	33	36.7	44.9	50	5000	64.6	496	42
30KP33A	30KP33CA	33	36.7	40.6	50	5000	58.6	548	38
30KP36	30KP36C	36	40.0	48.9	50	5000	68.2	454	46
30KP36A	30KP36CA	36	40.0	44.2	50	5000	61.8	502	41
30KP40	30KP40C	40	44.4	54.3	20	1500	75.8	412	51
30KP40A	30KP40CA	40	44.4	49.1	20	1500	68.6	456	46
30KP43	30KP43C	43	47.8	58.4	10	500	79.0	380	55
30KP43A	30KP43CA	43	47.8	52.8	10	500	71.0	430	50
30KP45	30KP45C	45	50.0	61.1	5	150	80.7	372	57
30KP45A	30KP45CA	45	50.0	55.3	5	150	73.0	410	52
30KP48	30KP48C	48	53.3	65.1	5	150	85.9	350	62
30KP48A	30KP48CA	48	53.3	58.9	5	150	77.7	386	56
30KP51	30KP51C	51	56.7	69.3	5	50	91.5	328	66
30KP51A	30KP51CA	51	56.7	62.7	5	50	82.8	362	60
30KP54	30KP54C	54	60.0	73.3	5	25	96.8	310	70
30KP54A	30KP54CA	54	60.0	66.3	5	25	87.5	342	63
30KP58	30KP58C	58	64.4	78.7	5	15	104	288	76
30KP58A	30KP58CA	58	64.4	71.2	5	15	94	320	68
30KP60	30KP60C	60	66.7	81.5	5	15	107	280	78
30KP60A	30KP60CA	60	66.7	73.7	5	15	97.3	304	71
30KP64	30KP64C	64	71.1	86.9	5	10	115	260	84
30KP64A	30KP64CA	64	71.1	78.6	5	10	104	288	76
30KP70	30KP70C	70	77.8	95.1	5	10	126	238	92
30KP70A	30KP70CA	70	77.8	86.0	5	10	114	264	83
30KP75	30KP75C	75	83.3	102	5	10	135	222	100
30KP75A	30KP75CA	75	83.3	92.1	5	10	122	246	89
30KP78	30KP78C	78	86.7	106	5	10	140	214	104
30KP78A	30KP78CA	78	86.7	95.8	5	10	126	238	93
30KP85	30KP85C	85	94.4	115	5	10	152	198	113
30KP85A	30KP85CA	85	94.4	104	5	10	137	218	102
30KP90	30KP90C	90	100	122	5	10	160	188	120
30KP90A	30KP90CA	90	100	111	5	10	146	206	109



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation
(Unidirectional)	(Bidirectional)	V_{WM} (V)	V_{BR} (V) Min.	Max.	$I_{(BR)}$ (mA)	I_R (μA)	V_C (V)	I_{PP} (A)	of V_{BR} (mV/°C)

30KP Series, 30,000 W, Case Type: D6



30KP100	30KP100C	100	111	136	5	10	179	168	134
30KP100A	30KP100CA	100	111	123	5	10	162	186	121
30KP110	30KP110C	110	122	149	5	10	196	154	147
30KP110A	30KP110CA	110	122	135	5	10	178	168	133
30KP120	30KP120C	120	133	163	5	10	214	140	161
30KP120A	30KP120CA	120	133	147	5	10	193	156	145
30KP130	30KP130C	130	144	176	5	10	231	130	174
30KP130A	30KP130CA	130	144	159	5	10	209	142	157
30KP150	30KP150C	150	167	204	5	10	268	112	202
30KP150A	30KP150CA	150	167	185	5	10	243	124	183
30KP160	30KP160C	160	178	218	5	10	287	104	216
30KP160A	30KP160CA	160	178	197	5	10	259	116	195
30KP170	30KP170C	170	189	231	5	10	304	98	229
30KP170A	30KP170CA	170	189	209	5	10	275	110	207
30KP180	30KP180C	180	200	244	5	10	321	94	242
30KP180A	30KP180CA	180	200	221	5	10	291	104	219
30KP200	30KP200C	200	222	271	5	10	356	84	269
30KP200A	30KP200CA	200	222	245	5	10	322	94	243
30KP220	30KP220C	220	245	299	5	10	393	76	297
30KP220A	30KP220CA	220	245	271	5	10	356	84	269
30KP250A	30KP250CA	250	278	308	5	10	403	74	306
30KP260A	30KP260CA	260	289	320	5	10	419	71	318
30KP280A	30KP280CA	280	311	345	5	10	451	66	344
30KP300A	30KP300CA	300	333	369	5	10	483	62	368
30KP350A	30KP350CA	350	389	431	5	10	564	53	430
30KP400A	30KP400CA	400	444	492	5	10	644	46	490

Note:

Suffix "A" denotes 5% tolerance device , no suffix denotes a 10% tolerance device



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current
(Unidirectional)	(Bidirectional)	V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_R	V_C	I_{PP}
		(V)	Min.	Max.	(mA)	(μA)	(V)	(A)

50KP Series, 50,000 W, Case Type: D6



50KP36	50KP36C	36	40.0	48.9	50	10000	68.2	733
50KP36A	50KP36CA	36	40.0	44.2	50	10000	61.8	809
50KP40	50KP40C	40	44.4	54.3	20	10000	75.8	659
50KP40A	50KP40CA	40	44.4	49.1	20	10000	68.6	728
50KP43	50KP43C	43	47.8	58.4	10	10000	79.0	632
50KP43A	50KP43CA	43	47.8	52.8	10	10000	71.0	704
50KP45	50KP45C	45	50.0	61.1	5	8000	80.7	619
50KP45A	50KP45CA	45	50.0	55.3	5	8000	73.0	684
50KP48	50KP48C	48	53.3	65.1	5	8000	85.9	582
50KP48A	50KP48CA	48	53.3	58.9	5	8000	77.7	643
50KP51	50KP51C	51	56.7	69.3	5	5000	91.5	546
50KP51A	50KP51CA	51	56.7	62.7	5	5000	82.8	603
50KP54	50KP54C	54	60.0	73.3	5	5000	96.8	516
50KP54A	50KP54CA	54	60.0	66.3	5	5000	87.5	571
50KP58	50KP58C	58	64.4	78.7	5	1500	104	480
50KP58A	50KP58CA	58	64.4	71.2	5	1500	94	531
50KP60	50KP60C	60	66.7	81.5	5	500	107	467
50KP60A	50KP60CA	60	66.7	73.7	5	500	97.3	513
50KP64	50KP64C	64	71.1	86.9	5	150	115	434
50KP64A	50KP64CA	64	71.1	78.6	5	150	104	480
50KP70	50KP70C	70	77.8	95.1	5	150	126	396
50KP70A	50KP70CA	70	77.8	86.0	5	150	114	438
50KP75	50KP75C	75	83.3	102	5	50	135	370
50KP75A	50KP75CA	75	83.3	92.1	5	50	122	409
50KP78	50KP78C	78	86.7	106	5	25	140	357
50KP78A	50KP78CA	78	86.7	95.8	5	25	126	396
50KP85	50KP85C	85	94.4	115	5	15	152	328
50KP85A	50KP85CA	85	94.4	104	5	15	137	364
50KP90	50KP90C	90	100	122	5	15	160	312
50KP90A	50KP90CA	90	100	111	5	15	146	342
50KP100	50KP100C	100	111	136	5	10	179	279
50KP100A	50KP100CA	100	111	123	5	10	162	308



Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.		Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$		Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current
(Unidirectional)	(Bidirectional)	V_{WM}	V_{BR} (V)		I_R	V_C	I_{PP}
		(V)	Min.	Max.	(μA)	(V)	(A)

50KP Series, 50,000 W, Case Type: D6



50KP110	50KP110C	110	122	149	5	10	196	255
50KP110A	50KP110CA	110	122	135	5	10	178	280
50KP120	50KP120C	120	133	163	5	10	214	233
50KP120A	50KP120CA	120	133	147	5	10	193	259
50KP130	50KP130C	130	144	176	5	10	231	216
50KP130A	50KP130CA	130	144	159	5	10	209	239
50KP150	50KP150C	150	167	204	5	10	268	186
50KP150A	50KP150CA	150	167	185	5	10	243	205
50KP160	50KP160C	160	178	218	5	10	287	174
50KP160A	50KP160CA	160	178	197	5	10	259	193
50KP170	50KP170C	170	189	231	5	10	304	164
50KP170A	50KP170CA	170	189	209	5	10	275	181
50KP180	50KP180C	180	200	244	5	10	321	155
50KP180A	50KP180CA	180	200	221	5	10	291	171
50KP200	50KP200C	200	222	271	5	10	356	140
50KP200A	50KP200CA	200	222	245	5	10	322	155
50KP220	50KP220C	220	245	299	5	10	393	127
50KP220A	50KP220CA	220	245	271	5	10	356	140
50KP250A	50KP250CA	250	278	308	5	10	403	124
50KP260A	50KP260CA	260	289	320	5	10	419	119
50KP280A	50KP280CA	280	311	345	5	10	451	110
50KP300A	50KP300CA	300	333	369	5	10	483	103
50KP350A	50KP350CA	350	389	431	5	10	564	88
50KP400A	50KP400CA	400	444	492	5	10	644	77

Note: (1) For bidirectional type having V_{WM} of 60 volts and less, the I_P limit is double.



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type No.	Breakdown Voltage @ I_t		Reverse Stand-off Voltage	Max. Reverse Leakage @ V_{RWM}	Max. Clamping Voltage @ $I_{RSM} = 5A$	Max. Reverse Current	Max. Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ V_{WIB}	Peak Inverse Blocking Voltage
	V_{BR} (V)	I_t	V_{RWM}	I_R	V_{RSM}	I_{RSM}		V_{WIB}	I_{IB}	V_{PIB}
	Min.	(mA)	(V)	(μA)	(V)	(A)	pF	(V)	mA	(V)

SAC Series, 500 W, Case Type: DO-41



SAC5.0	7.6	1.0	5.0	300	10.0	44	50	75	1.0	100
SAC6.0	7.9	1.0	6.0	300	11.2	41	50	75	1.0	100
SAC7.0	8.3	1.0	7.0	300	12.6	38	50	75	1.0	100
SAC8.0	8.9	1.0	8.0	100	13.4	36	50	75	1.0	100
SAC8.5	9.4	1.0	8.5	50	14.0	34	50	75	1.0	100
SAC10	11.1	1.0	10	5.0	16.3	29	50	75	1.0	100
SAC12	13.3	1.0	12	5.0	19.0	25	50	75	1.0	100
SAC15	16.7	1.0	15	5.0	23.6	20	50	75	1.0	100
SAC18	20.0	1.0	18	5.0	28.8	15	50	75	1.0	100
SAC22	24.4	1.0	22	5.0	35.4	14	50	75	1.0	100
SAC26	28.9	1.0	26	5.0	42.3	11.1	50	75	1.0	100
SAC30	33.3	1.0	30	5.0	48.6	10	50	75	1.0	100
SAC36	40.0	1.0	36	5.0	60.0	8.6	50	75	1.0	100
SAC45	50.0	1.0	45	5.0	77.0	6.8	50	150	1.0	200
SAC50	55.5	1.0	50	5.0	88.0	5.8	50	150	1.0	200



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage ⁽¹⁾ @ I _T		Reverse Stand-off Voltage	Maximum Reverse Leakage @ V _{RWM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I _{PPM}	Maximum Junction Capacitance @ 0 Volt
	V _{BR} (V)		V _{RWM}	I _R	I _{PPM}	V _C	@ 0 Volt
	Min.	Max.	(mA)	(V)	(μA)	(A)	pF

SMBJ-LC Series, 600 W, Case Type: SMB



SMBJ-LC5.0	7.20	8.62	10	5.0	800	62.5	9.6	80
SMBJ-LC5.0A	7.20	7.87	10	5.0	800	65.2	9.2	80
SMBJ-LC6.0	7.47	8.95	10	6.0	800	52.6	11.4	80
SMBJ-LC6.0A	7.47	8.17	10	6.0	800	58.3	10.3	80
SMBJ-LC6.5	8.02	9.62	10	6.5	500	48.7	12.3	80
SMBJ-LC6.5A	8.02	8.78	10	6.5	500	53.6	11.2	80
SMBJ-LC7.0	8.58	10.31	10	7.0	200	45.1	13.3	80
SMBJ-LC7.0A	8.58	9.40	10	7.0	200	50.0	12.0	80
SMBJ-LC7.5	9.13	11.00	1.0	7.5	100	42.0	14.3	80
SMBJ-LC7.5A	9.13	10.01	1.0	7.5	100	46.5	12.9	80
SMBJ-LC8.0	9.69	11.70	1.0	8.0	50	40.0	15.0	80
SMBJ-LC8.0A	9.69	10.63	1.0	8.0	50	44.1	13.6	80
SMBJ-LC8.5	10.24	12.3	1.0	8.5	10	37.7	15.9	80
SMBJ-LC8.5A	10.24	11.2	1.0	8.5	10	41.7	14.4	80
SMBJ-LC9.0	10.8	13.0	1.0	9.0	5.0	35.5	16.9	80
SMBJ-LC9.0A	10.8	11.9	1.0	9.0	5.0	39.0	15.4	80
SMBJ-LC10	11.9	14.4	1.0	10	1.0	31.9	18.8	80
SMBJ-LC10A	11.9	13.1	1.0	10	1.0	35.3	17.0	80
SMBJ-LC11	13.0	15.7	1.0	11	1.0	29.9	20.1	80
SMBJ-LC11A	13.0	14.3	1.0	11	1.0	33.0	18.2	80
SMBJ-LC12	14.1	17.1	1.0	12	1.0	27.3	22.0	80
SMBJ-LC12A	14.1	15.5	1.0	12	1.0	30.2	19.9	80
SMBJ-LC13	15.2	18.4	1.0	13	1.0	25.2	23.8	80
SMBJ-LC13A	15.2	16.7	1.0	13	1.0	27.9	21.5	80
SMBJ-LC14	16.4	19.9	1.0	14	1.0	23.3	25.8	80
SMBJ-LC14A	16.4	18.0	1.0	14	1.0	25.8	23.2	80
SMBJ-LC15	17.5	21.2	1.0	15	1.0	22.3	26.9	80
SMBJ-LC15A	17.5	19.3	1.0	15	1.0	24.0	24.4	80
SMBJ-LC16	18.6	22.6	1.0	16	1.0	20.8	28.8	80
SMBJ-LC16A	18.6	20.5	1.0	16	1.0	23.1	26.0	80
SMBJ-LC17	19.7	23.9	1.0	17	1.0	19.7	30.5	80
SMBJ-LC17A	19.7	21.7	1.0	17	1.0	21.7	27.6	80
SMBJ-LC18	20.8	25.2	1.0	18	1.0	18.6	32.2	80
SMBJ-LC18A	20.8	22.9	1.0	18	1.0	20.5	29.2	80
SMBJ-LC20	23.0	27.9	1.0	20	1.0	16.7	35.8	80
SMBJ-LC20A	23.0	25.3	1.0	20	1.0	18.5	32.4	80
SMBJ-LC22	25.2	30.6	1.0	22	1.0	15.2	39.4	80
SMBJ-LC22A	25.2	27.7	1.0	22	1.0	16.9	35.5	80
SMBJ-LC24	27.5	33.4	1.0	24	1.0	14.0	43.0	80
SMBJ-LC24A	27.5	30.3	1.0	24	1.0	15.4	38.9	80
SMBJ-LC26	29.7	36.1	1.0	26	1.0	12.4	46.6	80
SMBJ-LC26A	29.7	32.7	1.0	26	1.0	14.2	42.1	80
SMBJ-LC28	31.9	38.8	1.0	28	1.0	12.0	50.0	80
SMBJ-LC28A	31.9	35.2	1.0	28	1.0	13.2	45.4	80
SMBJ-LC30	34.1	41.5	1.0	30	1.0	11.2	53.5	80
SMBJ-LC30A	34.1	37.6	1.0	30	1.0	12.4	48.4	80
SMBJ-LC33	37.5	45.7	1.0	33	1.0	10.2	59.0	80
SMBJ-LC33A	37.5	41.4	1.0	33	1.0	11.3	53.3	80



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage ⁽¹⁾ @ I _T		Reverse Stand-off Voltage	Maximum Reverse Leakage @ V _{RWM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I _{PPM}	Maximum Junction Capacitance @ 0 Volt
	V _{BR} (V)		V _{RWM}	I _R	I _{PPM}	V _C	@ 0 Volt
	Min.	Max.	(mA)	(V)	(μA)	(A)	pF

SMBJ-LC Series, 600 W, Case Type: SMB



SMBJ-LC36	40.8	49.7	1.0	36	1.0	9.3	64.3	80
SMBJ-LC36A	40.8	45.0	1.0	36	1.0	10.3	58.1	80
SMBJ-LC40	45.2	55.1	1.0	40	1.0	8.4	71.4	80
SMBJ-LC40A	45.2	49.9	1.0	40	1.0	9.3	64.5	80
SMBJ-LC43	48.6	59.2	1.0	43	1.0	7.8	76.7	80
SMBJ-LC43A	48.6	53.6	1.0	43	1.0	8.6	69.4	80
SMBJ-LC45	50.8	61.9	1.0	45	1.0	7.5	80.3	80
SMBJ-LC45A	50.8	56.1	1.0	45	1.0	8.3	72.7	80
SMBJ-LC48	54.1	65.9	1.0	48	1.0	7.0	85.5	80
SMBJ-LC48A	54.1	59.7	1.0	48	1.0	7.7	77.4	80
SMBJ-LC51	57.5	70.1	1.0	51	1.0	6.6	91.1	80
SMBJ-LC51A	57.5	63.5	1.0	51	1.0	7.3	82.4	80
SMBJ-LC54	60.8	74.1	1.0	54	1.0	6.2	96.3	80
SMBJ-LC54A	60.8	67.1	1.0	54	1.0	6.9	87.1	80
SMBJ-LC58	65.2	79.5	1.0	58	1.0	5.8	103	80
SMBJ-LC58A	65.2	72.0	1.0	58	1.0	6.4	93.6	80
SMBJ-LC60	67.5	82.3	1.0	60	1.0	5.6	107	80
SMBJ-LC60A	67.5	74.5	1.0	60	1.0	6.2	96.8	80
SMBJ-LC64	71.9	87.7	1.0	64	1.0	5.3	114	80
SMBJ-LC64A	71.9	79.4	1.0	64	1.0	5.8	103	80
SMBJ-LC70	78.6	95.9	1.0	70	1.0	4.8	125	80
SMBJ-LC70A	78.6	86.8	1.0	70	1.0	5.3	113	80
SMBJ-LC75	84.1	102.8	1.0	75	1.0	4.5	134	80
SMBJ-LC75A	84.1	92.9	1.0	75	1.0	4.9	121	80
SMBJ-LC78	87.5	106.8	1.0	78	1.0	4.3	139	80
SMBJ-LC78A	87.5	96.6	1.0	78	1.0	4.7	126	80
SMBJ-LC85	95.2	115.8	1.0	85	1.0	3.9	151	80
SMBJ-LC85A	95.2	104.8	1.0	85	1.0	4.4	137	80
SMBJ-LC90	100.8	122.8	1.0	90	1.0	3.8	160	80
SMBJ-LC90A	100.8	111.8	1.0	90	1.0	4.1	146	80
SMBJ-LC100	111.8	136.8	1.0	100	1.0	3.4	179	80
SMBJ-LC100A	111.8	123.8	1.0	100	1.0	3.7	162	80
SMBJ-LC110	122.8	149.8	1.0	110	1.0	3.0	196	80
SMBJ-LC110A	122.8	135.8	1.0	110	1.0	3.4	177	80
SMBJ-LC120	133.8	163.8	1.0	120	1.0	2.8	214	80
SMBJ-LC120A	133.8	147.8	1.0	120	1.0	3.1	193	80
SMBJ-LC130	144.8	176.8	1.0	130	1.0	2.6	231	80
SMBJ-LC130A	144.8	159.8	1.0	130	1.0	2.9	209	80
SMBJ-LC150	167.8	204.8	1.0	150	1.0	2.2	268	80
SMBJ-LC150A	167.8	185.8	1.0	150	1.0	2.5	243	80
SMBJ-LC160	178.8	218.8	1.0	160	1.0	2.1	287	80
SMBJ-LC160A	178.8	197.8	1.0	160	1.0	2.3	259	80
SMBJ-LC170	189.8	231.8	1.0	170	1.0	2.0	304	80
SMBJ-LC170A	189.8	209.8	1.0	170	1.0	2.2	275	80
SMBJ-LC188	209.8	255.8	1.0	188	1.0	1.7	344	80
SMBJ-LC188A	209.8	231.8	1.0	188	1.0	2.0	328	80

Notes: (1) Pulse test : $t_p \leq 50\text{ms}$.

(2) "SMBJ-L" will be omitted in marking on the diode.



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type No.	Breakdown Voltage @ It		Reverse Stand-off Voltage	Max. Reverse Leakage @ VRWM	Max. Clamping Voltage @ IRSM	Max. Reverse Current	Max. Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ VWIB	Peak Inverse Blocking Voltage
	VBR (V)		VRWM	IR	VRSM	IRSM	pF	VWIB	IIB	VPIB
	Min.	Max.	(mA)	(V)	(μA)	(V)				

LCE Series, 1500 W, Case Type: DO-201



LCE6.5	8.02	9.62	10	6.5	1000	14.3	100	100	75	1.0	100
LCE6.5A	8.02	8.78	10	6.5	1000	13.2	100	100	75	1.0	100
LCE7.0	8.58	10.31	10	7.0	500	15.3	100	100	75	1.0	100
LCE7.0A	8.58	9.40	10	7.0	500	14.0	100	100	75	1.0	100
LCE7.5	9.13	11.00	10	7.5	250	16.3	100	100	75	1.0	100
LCE7.5A	9.13	10.01	10	7.5	250	14.9	100	100	75	1.0	100
LCE8.0	9.69	11.70	10	8.0	100	17.0	100	100	75	1.0	100
LCE8.0A	9.69	10.63	10	8.0	100	15.6	100	100	75	1.0	100
LCE8.5	10.24	12.3	1.0	8.5	50	17.9	94	100	75	1.0	100
LCE8.5A	10.24	11.2	1.0	8.5	50	16.4	100	100	75	1.0	100
LCE9.0	10.8	13.0	1.0	9.0	10.0	18.9	89	100	75	1.0	100
LCE9.0A	10.8	11.9	1.0	9.0	10.0	17.4	97	100	75	1.0	100
LCE10	11.9	14.4	1.0	10	5.0	20.8	80	100	75	1.0	100
LCE10A	11.9	13.1	1.0	10	5.0	19.0	88	100	75	1.0	100
LCE11	13.0	15.7	1.0	11	5.0	22.1	74	100	75	1.0	100
LCE11A	13.0	14.3	1.0	11	5.0	20.2	82	100	75	1.0	100
LCE12	14.1	17.1	1.0	12	5.0	24.0	68	100	75	1.0	100
LCE12A	14.1	15.5	1.0	12	5.0	21.9	75	100	75	1.0	100
LCE13	15.2	18.4	1.0	13	5.0	25.8	63	100	75	1.0	100
LCE13A	15.2	16.7	1.0	13	5.0	23.5	70	100	75	1.0	100
LCE14	16.4	19.9	1.0	14	5.0	27.8	58	100	75	1.0	100
LCE14A	16.4	18.0	1.0	14	5.0	25.2	65	100	75	1.0	100
LCE15	17.5	21.2	1.0	15	5.0	28.9	56	100	75	1.0	100
LCE15A	17.5	19.3	1.0	15	5.0	26.4	61	100	75	1.0	100
LCE16	18.6	22.6	1.0	16	5.0	30.8	52	100	75	1.0	100
LCE16A	18.6	20.5	1.0	16	5.0	28.0	57	100	75	1.0	100
LCE17	19.7	23.9	1.0	17	5.0	32.5	49	100	75	1.0	100
LCE17A	19.7	21.7	1.0	17	5.0	29.6	54	100	75	1.0	100
LCE18	20.8	25.2	1.0	18	5.0	34.2	46	100	75	1.0	100
LCE18A	20.8	22.9	1.0	18	5.0	31.2	51	100	75	1.0	100
LCE20	23.0	27.9	1.0	20	5.0	37.8	42	100	75	1.0	100
LCE20A	23.0	25.3	1.0	20	5.0	34.4	46	100	75	1.0	100
LCE22	25.2	30.6	1.0	22	5.0	41.4	38	100	75	1.0	100
LCE22A	25.2	27.7	1.0	22	5.0	37.5	42	100	75	1.0	100
LCE24	27.5	33.4	1.0	24	5.0	45.0	35	100	75	1.0	100
LCE24A	27.5	30.3	1.0	24	5.0	40.9	39	100	75	1.0	100
LCE26	29.7	36.1	1.0	26	5.0	48.6	32	100	75	1.0	100
LCE26A	29.7	32.7	1.0	26	5.0	44.1	36	100	75	1.0	100
LCE28	31.9	38.8	1.0	28	5.0	52.1	30	100	75	1.0	100
LCE28A	31.9	35.2	1.0	28	5.0	47.5	33	100	75	1.0	100



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type No.	Breakdown Voltage @ It		Reverse Stand-off Voltage	Max. Reverse Leakage @ VRWM	Max. Clamping Voltage @ IRSM	Max. Reverse Current	Max. Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ VWIB	Peak Inverse Blocking Voltage
	VBR (V)		VRWM	IR	VRSM	IRSM	pF	VWIB	IIB	VPIB
	Min.	Max.	(mA)	(V)	(μA)	(V)				

LCE Series, 1500 W, Case Type: DO-201



LCE30	34.1	41.5	1.0	30	5.0	55.5	28	100	75	1.0	100
LCE30A	34.1	37.6	1.0	30	5.0	50.4	31	100	75	1.0	100
LCE33	37.5	45.7	1.0	33	5.0	61.0	25.4	100	75	1.0	100
LCE33A	37.5	41.4	1.0	33	5.0	55.3	28.1	100	75	1.0	100
LCE36	40.8	49.7	1.0	36	5.0	66.3	23.3	100	75	1.0	100
LCE36A	40.8	45.0	1.0	36	5.0	60.1	25.8	100	75	1.0	100
LCE40	45.2	55.1	1.0	40	5.0	73.4	21	100	75	1.0	100
LCE40A	45.2	49.9	1.0	40	5.0	66.5	23.3	100	75	1.0	100
LCE43	48.6	59.2	1.0	43	5.0	78.7	19.5	100	150	1.0	200
LCE43A	48.6	53.6	1.0	43	5.0	71.4	21.6	100	150	1.0	200
LCE45	50.8	61.9	1.0	45	5.0	82.3	18.7	100	150	1.0	200
LCE45A	50.8	56.1	1.0	45	5.0	74.7	20.6	100	150	1.0	200
LCE48	54.1	65.9	1.0	48	5.0	87.5	17.5	100	150	1.0	200
LCE48A	54.1	59.7	1.0	48	5.0	79.4	19.4	100	150	1.0	200
LCE51	57.5	70.1	1.0	51	5.0	93.1	16.5	100	150	1.0	200
LCE51A	57.5	63.5	1.0	51	5.0	84.4	18.2	100	150	1.0	200
LCE54	60.8	74.1	1.0	54	5.0	98.3	15.6	100	150	1.0	200
LCE54A	60.8	67.1	1.0	54	5.0	89.1	17.2	100	150	1.0	200
LCE58	65.2	79.5	1.0	58	5.0	105.0	14.6	100	150	1.0	200
LCE58A	65.2	72.0	1.0	58	5.0	95.6	16	100	150	1.0	200
LCE60	67.5	82.3	1.0	60	5.0	109.0	14	90	150	1.0	200
LCE60A	67.5	74.5	1.0	60	5.0	98.8	15.5	90	150	1.0	200
LCE64	71.9	87.7	1.0	64	5.0	116.0	13.2	90	150	1.0	200
LCE64A	71.9	79.4	1.0	64	5.0	105.0	14.6	90	150	1.0	200
LCE70	78.6	95.9	1.0	70	5.0	127.0	12.0	90	150	1.0	200
LCE70A	78.6	86.8	1.0	70	5.0	115.0	13.3	90	150	1.0	200
LCE75	84.1	102.8	1.0	75	5.0	136.0	11.2	90	150	1.0	200
LCE75A	84.1	92.9	1.0	75	5.0	123.0	12.4	90	150	1.0	200
LCE80	95.2	115.8	1.0	80	5.0	144.0	10.6	90	150	1.0	200
LCE80A	95.2	104.8	1.0	80	5.0	131.0	11.6	90	150	1.0	200
LCE90	100.8	122.8	1.0	90	5.0	162.0	9.4	90	300	1.0	200
LCE90A	100.8	111.8	1.0	90	5.0	148.0	10.3	90	300	1.0	200



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type Number	Reverse Stand-off Voltage	Breakdown Voltage @ I_{BR}			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current @ 10/1000	Maximum Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Inverse Blocking Leakage Current	Peak Inverse Blocking Voltage
	V_{WM}	V_{BR} (V)		I_{BR}	I_D	V_C	I_{PP}	pF	V_{WIB} (V)	I_{IB} mA	V_{PIB} (V)
	(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)				

SMCJLCE Series, 1500 W, Case Type: SMC



SMCJLCE6.5	6.5	7.22	8.82	10	1000	12.3	100	75	75	1.0	100
SMCJLCE6.5A	6.5	7.22	7.98	10	1000	11.2	100	75	75	1.0	100
SMCJLCE7.0	7.0	7.78	9.51	10	500	13.3	100	75	75	1.0	100
SMCJLCE7.0A	7.0	7.78	8.60	10	500	12.0	100	75	75	1.0	100
SMCJLCE7.5	7.5	8.33	10.2	10	250	14.3	100	100	75	1.0	100
SMCJLCE7.5A	7.5	8.33	9.21	10	250	12.9	100	100	75	1.0	100
SMCJLCE8.0	8.0	8.89	10.9	10	100	15.0	100	100	75	1.0	100
SMCJLCE8.0A	8.0	8.89	9.83	1.0	100	13.6	100	100	75	1.0	100
SMCJLCE8.5	8.5	9.44	11.5	1.0	50	15.9	94	100	75	1.0	100
SMCJLCE8.5A	8.5	9.44	10.4	1.0	50	14.4	100	100	75	1.0	100
SMCJLCE9.0	9.0	10.0	12.2	1.0	10	16.9	89	100	75	1.0	100
SMCJLCE9.0A	9.0	10.0	11.1	1.0	10	15.4	97	100	75	1.0	100
SMCJLCE10	10	11.1	13.6	1.0	5.0	18.8	80	100	75	1.0	100
SMCJLCE10A	10	11.1	12.3	1.0	5.0	17.0	88	100	75	1.0	100
SMCJLCE11	11	12.2	14.9	1.0	5.0	20.1	74	100	75	1.0	100
SMCJLCE11A	11	12.2	13.5	1.0	5.0	18.2	82	100	75	1.0	100
SMCJLCE12	12	13.3	16.3	1.0	5.0	22.0	68	100	75	1.0	100
SMCJLCE12A	12	13.3	14.7	1.0	5.0	19.9	75	100	75	1.0	100
SMCJLCE13	13	14.4	17.6	1.0	5.0	23.8	63	100	75	1.0	100
SMCJLCE13A	13	14.4	15.9	1.0	5.0	21.5	70	100	75	1.0	100
SMCJLCE14	14	15.6	19.1	1.0	5.0	25.8	58	100	75	1.0	100
SMCJLCE14A	14	15.6	17.2	1.0	5.0	23.2	65	100	75	1.0	100
SMCJLCE15	15	16.7	20.4	1.0	5.0	26.9	56	100	75	1.0	100
SMCJLCE15A	15	16.7	18.5	1.0	5.0	24.4	61	100	75	1.0	100
SMCJLCE16	16	17.8	21.8	1.0	5.0	28.8	52	100	75	1.0	100
SMCJLCE16A	16	17.8	19.7	1.0	5.0	26.0	57	100	75	1.0	100
SMCJLCE17	17	18.9	23.1	1.0	5.0	30.5	49	100	75	1.0	100
SMCJLCE17A	17	18.9	20.9	1.0	5.0	27.6	54	100	75	1.0	100
SMCJLCE18	18	20.0	24.4	1.0	5.0	32.2	46	100	75	1.0	100
SMCJLCE18A	18	20.0	22.1	1.0	5.0	29.2	51	100	75	1.0	100
SMCJLCE20	20	22.2	27.1	1.0	5.0	35.8	42	100	75	1.0	100
SMCJLCE20A	20	22.2	24.5	1.0	5.0	32.4	46	100	75	1.0	100
SMCJLCE22	22	24.4	29.8	1.0	5.0	39.4	38	100	75	1.0	100
SMCJLCE22A	22	24.4	26.9	1.0	5.0	35.5	42	100	75	1.0	100
SMCJLCE24	24	26.7	32.6	1.0	5.0	43.0	35	100	75	1.0	100
SMCJLCE24A	24	26.7	29.5	1.0	5.0	38.9	39	100	75	1.0	100
SMCJLCE26	26	28.9	35.3	1.0	5.0	46.6	32	100	75	1.0	100
SMCJLCE26A	26	28.9	31.9	1.0	5.0	42.1	36	100	75	1.0	100
SMCJLCE28	28	31.1	38.0	1.0	5.0	50.1	30	100	75	1.0	100
SMCJLCE28A	28	31.1	34.4	1.0	5.0	45.5	33	100	75	1.0	100
SMCJLCE30	30	33.3	40.7	1.0	5.0	53.5	28	100	75	1.0	100
SMCJLCE30A	30	33.3	36.8	1.0	5.0	48.4	31	100	75	1.0	100
SMCJLCE33	33	36.7	44.9	1.0	5.0	59.0	25.4	100	75	1.0	100
SMCJLCE33A	33	36.7	40.6	1.0	5.0	53.3	28.1	100	75	1.0	100



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type Number	Reverse Stand-off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current @ 10/1000	Maximum Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Inverse Blocking Leakage Current	Peak Inverse Blocking Voltage
	V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_D	V_C	I_{PP}	pF	V_{WIB}	I_{IB}	V_{PIB}
	(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)		(V)	mA	(V)

SMCJLCE Series, 1500 W, Case Type: SMC



SMCJLCE36	36	40.0	48.9	1.0	5.0	64.3	23.3	100	75	1.0	100
SMCJLCE36A	36	40.0	44.2	1.0	5.0	58.1	25.8	100	75	1.0	100
SMCJLCE40	40	44.4	54.3	1.0	5.0	71.4	21.0	100	75	1.0	100
SMCJLCE40A	40	44.4	49.1	1.0	5.0	64.5	23.3	100	75	1.0	100
SMCJLCE43	43	47.8	58.4	1.0	5.0	76.7	19.5	100	150	1.0	200
SMCJLCE43A	43	47.8	52.8	1.0	5.0	69.4	21.6	100	150	1.0	200
SMCJLCE45	45	50.0	61.1	1.0	5.0	80.3	18.7	100	150	1.0	200
SMCJLCE45A	45	50.0	55.3	1.0	5.0	72.7	20.6	100	150	1.0	200
SMCJLCE48	48	53.3	65.1	1.0	5.0	85.5	17.5	100	150	1.0	200
SMCJLCE48A	48	53.3	58.9	1.0	5.0	77.4	19.4	100	150	1.0	200
SMCJLCE51	51	56.7	69.3	1.0	5.0	91.1	16.5	100	150	1.0	200
SMCJLCE51A	51	56.7	62.7	1.0	5.0	82.4	18.2	100	150	1.0	200
SMCJLCE54	54	60.0	73.3	1.0	5.0	96.3	15.6	100	150	1.0	200
SMCJLCE54A	54	60.0	66.3	1.0	5.0	87.1	17.2	100	150	1.0	200
SMCJLCE58	58	64.4	78.7	1.0	5.0	103	14.6	100	150	1.0	200
SMCJLCE58A	58	64.4	71.2	1.0	5.0	93.6	16.0	100	150	1.0	200
SMCJLCE60	60	66.7	81.5	1.0	5.0	107	14.0	90	150	1.0	200
SMCJLCE60A	60	66.7	73.7	1.0	5.0	96.8	15.5	90	150	1.0	200
SMCJLCE64	64	71.1	86.9	1.0	5.0	114	13.2	90	150	1.0	200
SMCJLCE64A	64	71.1	78.6	1.0	5.0	103	14.6	90	150	1.0	200
SMCJLCE70	70	77.8	95.1	1.0	5.0	125	12.0	90	150	1.0	200
SMCJLCE70A	70	77.8	86.0	1.0	5.0	113	13.3	90	150	1.0	200
SMCJLCE75	75	83.3	102	1.0	5.0	134	11.2	90	150	1.0	200
SMCJLCE75A	75	83.3	92.1	1.0	5.0	121	12.4	90	150	1.0	200
SMCJLCE80	80	88.7	108	1.0	5.0	142	10.6	90	150	1.0	200
SMCJLCE80A	80	88.7	98.0	1.0	5.0	129	11.6	90	150	1.0	200
SMCJLCE90	90	100	122	1.0	5.0	160	9.4	90	300	1.0	200
SMCJLCE90A	90	100	111	1.0	5.0	146	10.3	90	300	1.0	200
SMCJLCE100	100	111	136	1.0	5.0	179	8.4	90	300	1.0	200
SMCJLCE100A	100	111	123	1.0	5.0	162	9.3	90	300	1.0	200
SMCJLCE110	110	122	149	1.0	5.0	196	7.7	90	300	1.0	400
SMCJLCE110A	110	122	135	1.0	5.0	178	8.4	90	300	1.0	400
SMCJLCE120	120	133	163	1.0	5.0	214	7.0	90	300	1.0	400
SMCJLCE120A	120	133	147	1.0	5.0	193	7.8	90	300	1.0	400
SMCJLCE130	130	144	176	1.0	5.0	231	6.5	90	300	1.0	400
SMCJLCE130A	130	144	159	1.0	5.0	209	7.2	90	300	1.0	400
SMCJLCE150	150	167	204	1.0	5.0	268	5.6	90	300	1.0	400
SMCJLCE150A	150	167	185	1.0	5.0	243	6.2	90	300	1.0	400
SMCJLCE160	160	178	218	1.0	5.0	287	5.2	90	300	1.0	400
SMCJLCE160A	160	178	197	1.0	5.0	259	5.8	90	300	1.0	400
SMCJLCE170	170	189	231	1.0	5.0	304	4.9	90	300	1.0	400
SMCJLCE170A	170	189	209	1.0	5.0	275	5.4	90	300	1.0	400



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_{BR}		Reverse Stand-off Voltage	Maximum Clamping Voltage @ I_{PP}	Peak Pulse Current	Maximum Standby Current @ V_{WM}	Maximum Junction Capacitance @ 0 Volt
	V_{BR} (V)		V_{WM}	V_C	I_{PP}	I_D	@ 0 Volt pF
	Min.	Max.	(mA)	(V)	(V)	(A)	

SMLJ-LCxx Series, 3000 W, Case Type: SMC



SMLJ-LC5.0	7.40	8.30	10	5.0	9.6	312.5	1000	100
SMLJ-LC5.0A	7.40	8.00	10	5.0	9.2	326.0	1000	100
SMLJ-LC6.0	7.67	9.15	10	6.0	11.4	263.2	1000	100
SMLJ-LC6.0A	7.67	8.37	10	6.0	10.3	291.3	1000	100
SMLJ-LC6.5	8.22	9.82	10	6.5	12.3	243.9	500	100
SMLJ-LC6.5A	8.22	8.98	10	6.5	11.2	267.9	500	100
SMLJ-LC7.0	8.78	10.51	10	7.0	13.3	225.6	200	100
SMLJ-LC7.0A	8.78	9.60	10	7.0	12.0	250.0	200	100
SMLJ-LC7.5	9.33	11.2	1.0	7.5	14.3	209.8	100	100
SMLJ-LC7.5A	9.33	10.21	1.0	7.5	12.9	232.6	100	100
SMLJ-LC8.0	9.89	11.9	1.0	8.0	15.0	200.0	50	100
SMLJ-LC8.0A	9.89	10.83	1.0	8.0	13.6	220.6	50	100
SMLJ-LC8.5	10.44	12.5	1.0	8.5	15.9	188.6	25	100
SMLJ-LC8.5A	10.44	11.4	1.0	8.5	14.4	208.4	25	100
SMLJ-LC9.0	11.0	13.2	1.0	9.0	16.9	177.4	10	100
SMLJ-LC9.0A	11.0	12.1	1.0	9.0	15.4	194.8	10	100
SMLJ-LC10	12.1	14.6	1.0	10	18.8	159.6	5	100
SMLJ-LC10A	12.1	13.3	1.0	10	17.0	176.4	5	100
SMLJ-LC11	13.2	15.9	1.0	11	20.1	149.2	5	100
SMLJ-LC11A	13.2	14.5	1.0	11	18.2	164.8	5	100
SMLJ-LC12	14.3	17.3	1.0	12	22.0	136.4	5	100
SMLJ-LC12A	14.3	15.7	1.0	12	19.9	150.6	5	100
SMLJ-LC13	15.4	18.6	1.0	13	23.8	126.0	5	100
SMLJ-LC13A	15.4	16.9	1.0	13	21.5	139.4	5	100
SMLJ-LC14	16.6	20.1	1.0	14	25.8	116.2	2	100
SMLJ-LC14A	16.6	18.2	1.0	14	23.2	129.4	2	100
SMLJ-LC15	17.7	21.4	1.0	15	26.9	111.6	2	100
SMLJ-LC15A	17.7	19.5	1.0	15	24.4	123.0	2	100
SMLJ-LC16	18.8	22.8	1.0	16	28.8	104.2	2	100
SMLJ-LC16A	18.8	20.7	1.0	16	26.0	115.4	2	100
SMLJ-LC17	19.9	24.1	1.0	17	30.5	98.4	2	100
SMLJ-LC17A	19.9	21.9	1.0	17	27.6	106.6	2	100
SMLJ-LC18	21.0	25.4	1.0	18	32.2	93.2	2	100
SMLJ-LC18A	21.0	23.1	1.0	18	29.2	102.8	2	100
SMLJ-LC20	23.2	28.1	1.0	20	35.8	83.8	2	100
SMLJ-LC20A	23.2	25.5	1.0	20	32.4	92.6	2	100
SMLJ-LC22	25.4	30.8	1.0	22	39.4	76.2	2	100
SMLJ-LC22A	25.4	27.9	1.0	22	35.5	84.4	2	100
SMLJ-LC24	27.7	33.6	1.0	24	43.0	69.8	2	100
SMLJ-LC24A	27.7	30.5	1.0	24	38.9	77.2	2	100
SMLJ-LC26	29.9	36.3	1.0	26	46.6	64.4	2	100
SMLJ-LC26A	29.9	32.9	1.0	26	42.1	71.2	2	100
SMLJ-LC28	32.1	39.0	1.0	28	50.0	60.0	2	100
SMLJ-LC28A	32.1	35.4	1.0	28	45.4	66.0	2	100
SMLJ-LC30	34.3	41.7	1.0	30	53.5	56.0	2	100
SMLJ-LC30A	34.3	37.8	1.0	30	48.4	62.0	2	100
SMLJ-LC33	37.7	45.9	1.0	33	59.0	50.4	2	100
SMLJ-LC33A	37.7	41.6	1.0	33	53.3	56.2	2	100



Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ $I_{(BR)}$		Reverse Stand-off Voltage	Maximum Clamping Voltage @ I_{PP}	Peak Pulse Current	Maximum Standby Current @ V_{WM}	Maximum Junction Capacitance @ 0 Volt
	V_{BR} (V)	$I_{(BR)}$	V_{WM}	V_C	I_{PP}	I_D	@ 0 Volt
	Min.	Max.	(mA)	(V)	(A)	(μA)	pF

SMLJ-LCxx Series, 3000 W, Case Type: SMC



SMLJ-LC36	41.0	49.9	1.0	36	64.3	46.6	2	100
SMLJ-LC36A	41.0	45.2	1.0	36	58.1	51.6	2	100
SMLJ-LC40	45.4	55.3	1.0	40	71.4	42.0	2	100
SMLJ-LC40A	45.4	50.1	1.0	40	64.5	46.4	2	100
SMLJ-LC43	48.8	59.4	1.0	43	76.7	39.2	2	100
SMLJ-LC43A	48.8	53.8	1.0	43	69.4	43.2	2	100
SMLJ-LC45	51.0	62.1	1.0	45	80.3	37.4	2	100
SMLJ-LC45A	51.0	56.3	1.0	45	72.7	41.2	2	100
SMLJ-LC48	54.3	66.1	1.0	48	85.5	35.0	2	100
SMLJ-LC48A	54.3	59.9	1.0	48	77.4	38.8	2	100
SMLJ-LC51	57.7	70.3	1.0	51	91.1	37.0	2	100
SMLJ-LC51A	57.7	63.7	1.0	51	82.4	36.4	2	100
SMLJ-LC54	61.0	74.3	1.0	54	96.3	31.2	2	100
SMLJ-LC54A	61.0	67.3	1.0	54	87.1	34.4	2	100
SMLJ-LC58	65.4	79.7	1.0	58	103	39.2	2	100
SMLJ-LC58A	65.4	72.2	1.0	58	93.6	32.0	2	100
SMLJ-LC60	67.7	82.5	1.0	60	107	28.0	2	90
SMLJ-LC60A	67.7	74.7	1.0	60	96.8	31.0	2	90
SMLJ-LC64	72.1	87.9	1.0	64	114	26.4	2	90
SMLJ-LC64A	72.1	79.6	1.0	64	103	29.2	2	90
SMLJ-LC70	78.8	96.1	1.0	70	125	24.0	2	90
SMLJ-LC70A	78.8	87.0	1.0	70	113	26.6	2	90
SMLJ-LC75	84.3	103.0	1.0	75	134	22.4	2	90
SMLJ-LC75A	84.3	93.1	1.0	75	121	24.8	2	90
SMLJ-LC78	87.7	107.0	1.0	78	139	21.6	2	90
SMLJ-LC78A	87.7	96.8	1.0	78	126	22.8	2	90
SMLJ-LC85	95.4	116	1.0	85	151	19.8	2	90
SMLJ-LC85A	95.4	105	1.0	85	137	20.8	2	90
SMLJ-LC90	101	123	1.0	90	160	18.8	2	90
SMLJ-LC90A	101	112	1.0	90	146	20.6	2	90
SMLJ-LC100	112	137	1.0	100	179	16.8	2	90
SMLJ-LC100A	112	124	1.0	100	162	18.6	2	90
SMLJ-LC110	123	150	1.0	110	196	15.4	2	90
SMLJ-LC110A	123	136	1.0	110	177	16.8	2	90
SMLJ-LC120	134	164	1.0	120	214	14.0	2	90
SMLJ-LC120A	134	148	1.0	120	193	15.6	2	90
SMLJ-LC130	145	177	1.0	130	231	13.0	2	90
SMLJ-LC130A	145	160	1.0	130	209	14.4	2	90
SMLJ-LC150	168	205	1.0	150	268	11.2	2	90
SMLJ-LC150A	168	186	1.0	150	243	12.4	2	90
SMLJ-LC160	179	219	1.0	160	287	10.4	2	90
SMLJ-LC160A	179	198	1.0	160	259	11.6	2	90
SMLJ-LC170	190	232	1.0	170	304	9.8	2	90
SMLJ-LC170A	190	210	1.0	170	275	11.0	2	90

Notes: (1) Pulse test : $t_p \leq 50ms$.

(2) "SMLJ-L" will be omitted in marking on the diode.



Ultra Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type No.	Breakdown Voltage @ It		Reverse Stand-off Voltage	Max. Reverse Leakage @ VRWM	Max. Clamping Voltage @ IRSM	Max. Reverse Current	Max. Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ VWIB	Peak Inverse Blocking Voltage
	VBR (V)	It	VRWM	IR	VRSM	IRSM	pF	VWIB	IIB	VPIB
	Min.	Max.	(mA)	(V)	(μA)	(V)		(V)	mA	(V)

ULCE Series, 1500 W, Case Type: DO-201



ULCE6.5	8.82	10.42	10	6.5	1000	16.3	100	35	75	1.0	100
ULCE6.5A	8.82	9.58	10	6.5	1000	15.2	100	35	75	1.0	100
ULCE7.0	9.38	11.11	10	7.0	500	17.3	100	35	75	1.0	100
ULCE7.0A	9.38	10.20	10	7.0	500	16.0	100	35	75	1.0	100
ULCE7.5	9.93	11.80	10	7.5	250	18.3	100	35	75	1.0	100
ULCE7.5A	9.93	10.81	10	7.5	250	16.9	100	35	75	1.0	100
ULCE8.0	10.49	12.50	10	8.0	100	19.0	100	35	75	1.0	100
ULCE8.0A	10.49	11.43	10	8.0	100	17.6	100	35	75	1.0	100
ULCE8.5	11.04	13.1	1.0	8.5	50	19.9	94	35	75	1.0	100
ULCE8.5A	11.04	12.0	1.0	8.5	50	18.4	100	35	75	1.0	100
ULCE9.0	11.6	13.8	1.0	9.0	10.0	20.9	89	35	75	1.0	100
ULCE9.0A	11.6	12.7	1.0	9.0	10.0	19.4	97	35	75	1.0	100
ULCE10	12.7	15.2	1.0	10	5.0	22.8	80	35	75	1.0	100
ULCE10A	12.7	13.9	1.0	10	5.0	21.0	88	35	75	1.0	100
ULCE11	13.8	16.5	1.0	11	5.0	24.1	74	35	75	1.0	100
ULCE11A	13.8	15.1	1.0	11	5.0	22.2	82	35	75	1.0	100
ULCE12	14.9	17.9	1.0	12	5.0	26.0	68	35	75	1.0	100
ULCE12A	14.9	16.3	1.0	12	5.0	23.9	75	35	75	1.0	100
ULCE13	16.0	19.2	1.0	13	5.0	27.8	63	35	75	1.0	100
ULCE13A	16.0	17.5	1.0	13	5.0	25.5	70	35	75	1.0	100
ULCE14	17.2	20.7	1.0	14	5.0	29.8	58	35	75	1.0	100
ULCE14A	17.2	18.8	1.0	14	5.0	27.2	65	35	75	1.0	100
ULCE15	18.3	22.0	1.0	15	5.0	30.9	56	35	75	1.0	100
ULCE15A	18.3	20.1	1.0	15	5.0	28.4	61	35	75	1.0	100
ULCE16	19.4	23.4	1.0	16	5.0	32.8	52	35	75	1.0	100
ULCE16A	19.4	21.3	1.0	16	5.0	30.0	57	35	75	1.0	100
ULCE17	20.5	24.7	1.0	17	5.0	34.5	49	35	75	1.0	100
ULCE17A	20.5	22.5	1.0	17	5.0	31.6	54	35	75	1.0	100
ULCE18	21.6	26.0	1.0	18	5.0	36.2	46	35	75	1.0	100
ULCE18A	21.6	23.7	1.0	18	5.0	33.2	51	35	75	1.0	100
ULCE20	23.8	28.7	1.0	20	5.0	39.8	42	35	75	1.0	100
ULCE20A	23.8	26.1	1.0	20	5.0	36.4	46	35	75	1.0	100
ULCE22	26.0	31.4	1.0	22	5.0	43.4	38	35	75	1.0	100
ULCE22A	26.0	28.5	1.0	22	5.0	39.5	42	35	75	1.0	100
ULCE24	28.3	34.2	1.0	24	5.0	47.0	35	35	75	1.0	100
ULCE24A	28.3	31.1	1.0	24	5.0	42.9	39	35	75	1.0	100
ULCE26	30.5	36.9	1.0	26	5.0	50.6	32	35	75	1.0	100
ULCE26A	30.5	33.5	1.0	26	5.0	46.1	36	35	75	1.0	100



Ultra Low Capacitance Transient Voltage Suppressor Diodes

The plastic material carries U/L recognition 94V-O.

Type No.	Breakdown Voltage @ I_t		Reverse Stand-off Voltage	Max. Reverse Leakage @ V_{RWM}	Max. Clamping Voltage @ I_{RSM}	Max. Reverse Current	Max. Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ V_{WIB}	Peak Inverse Blocking Voltage
	V_{BR} (V)	I_t	V_{RWM}	I_R	V_{RSM}	I_{RSM}	pF	V_{WIB}	I_{IB}	V_{PIB}
	Min.	Max.	(mA)	(V)	(μ A)	(V)		(V)	mA	(V)

ULCE Series, 1500 W, Case Type: DO-201



ULCE28	32.7	39.6	1.0	28	5.0	54.1	30	35	75	1.0	100
ULCE28A	32.7	36.0	1.0	28	5.0	49.5	33	35	75	1.0	100
ULCE30	34.9	42.3	1.0	30	5.0	57.5	28	35	75	1.0	100
ULCE30A	34.9	38.4	1.0	30	5.0	52.4	31	35	75	1.0	100
ULCE33	38.3	46.5	1.0	33	5.0	63.0	25.4	35	75	1.0	100
ULCE33A	38.3	42.2	1.0	33	5.0	57.3	28.1	35	75	1.0	100
ULCE36	41.6	50.5	1.0	36	5.0	68.3	23.3	35	75	1.0	100
ULCE36A	41.6	45.8	1.0	36	5.0	62.1	25.8	35	75	1.0	100
ULCE40	46.0	55.9	1.0	40	5.0	75.4	21	35	75	1.0	100
ULCE40A	46.0	50.7	1.0	40	5.0	68.5	23.3	35	75	1.0	100
ULCE43	49.4	60.0	1.0	43	5.0	80.7	19.5	35	150	1.0	200
ULCE43A	49.4	54.4	1.0	43	5.0	73.4	21.6	35	150	1.0	200
ULCE45	51.6	62.7	1.0	45	5.0	84.3	18.7	35	150	1.0	200
ULCE45A	51.6	56.9	1.0	45	5.0	76.7	20.6	35	150	1.0	200
ULCE48	54.9	66.7	1.0	48	5.0	89.5	17.5	35	150	1.0	200
ULCE48A	54.9	60.5	1.0	48	5.0	81.4	19.4	35	150	1.0	200
ULCE51	58.3	70.9	1.0	51	5.0	95.1	16.5	35	150	1.0	200
ULCE51A	58.3	64.3	1.0	51	5.0	86.4	18.2	35	150	1.0	200
ULCE54	61.6	74.9	1.0	54	5.0	100.3	15.6	35	150	1.0	200
ULCE54A	61.6	67.9	1.0	54	5.0	91.1	17.2	35	150	1.0	200
ULCE58	66.0	80.3	1.0	58	5.0	107.0	14.6	35	150	1.0	200
ULCE58A	66.0	72.8	1.0	58	5.0	97.6	16	35	150	1.0	200
ULCE60	68.3	83.1	1.0	60	5.0	111.0	14	35	150	1.0	200
ULCE60A	68.3	75.3	1.0	60	5.0	100.8	15.5	35	150	1.0	200
ULCE64	72.7	88.5	1.0	64	5.0	118.0	13.2	35	150	1.0	200
ULCE64A	72.7	80.2	1.0	64	5.0	107.0	14.6	35	150	1.0	200
ULCE70	79.4	96.7	1.0	70	5.0	129.0	12.0	35	150	1.0	200
ULCE70A	79.4	87.6	1.0	70	5.0	117.0	13.3	35	150	1.0	200
ULCE75	84.9	103.6	1.0	75	5.0	138.0	11.2	35	150	1.0	200
ULCE75A	84.9	93.7	1.0	75	5.0	125.0	12.4	35	150	1.0	200
ULCE80	90.3	109.6	1.0	80	5.0	146.0	10.6	35	150	1.0	200
ULCE80A	90.3	99.6	1.0	80	5.0	133.0	11.6	35	150	1.0	200
ULCE90	101.6	123.6	1.0	90	5.0	164.0	9.4	35	300	1.0	200
ULCE90A	101.6	112.6	1.0	90	5.0	150.0	10.3	35	300	1.0	200



Automotive Transient Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ I_R (Note 1) at $T_c = 25^\circ\text{C}$		Working Peak Reverse Voltage	Maximum Average Forward Rectified Current	Maximum Reverse Current	Maximum Reverse Leakage @ V_{RWM}	Typical Temperature Coefficient of V_{BR}
	V_{BR} (V)		V_{RWM}	$I_{F(AV)}$ @ T_c	I_{RSM}	I_R	of V_{BR} (% / $^\circ\text{C}$)
	Min.	Max.	(mA)	(V)	(A)	($^\circ\text{C}$)	

MR2535 Series, Case Type: MR



MR2535	24	32	100	20	35	150	110	200	0.096
MR2540	24	32	100	20	50	150	150	200	0.096
MR3230	38	42	100	30	32	150	77.0	1000	-

MR2535L Series, Case Type: D6



MR2535L	24	32	100	20	35	150	110	200	0.096
MR2540L	24	32	100	20	50	150	150	200	0.096

* For wire leads use suffix "AL" for Case Type : MR-L

Note :

(1) Pulse set : Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$



Automotive Transient Suppressor Diodes

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Leakage @ V_{RWM} , $T_j=150^{\circ}\text{C}$	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		V_{RWM}	I_R	I_D	$I_{PPM}(2)$	V_{RSM}
	Min.	Max.	(V)	(μA)	(μA)	(A)	(V)

TPSMC6.8 Series, 1500 W, Case Type: SMC



TPSMC6.8	6.12	7.48	10	5.50	1000	10000	139	10.8
TPSMC6.8A	6.45	7.14	10	5.80	1000	10000	143	10.5
TPSMC7.5	6.75	8.25	10	6.05	500	5000	128	11.7
TPSMC7.5A	7.13	7.88	10	6.40	500	2000	132	11.3
TPSMC8.2	7.38	9.02	10	6.63	200	2000	120	12.5
TPSMC8.2A	7.79	8.61	10	7.02	200	500	124	12.1
TPSMC9.1	8.19	10.0	1.0	7.37	50	500	109	13.8
TPSMC9.1A	8.65	9.55	1.0	7.78	50	200	112	13.4
TPSMC10	9.00	11.0	1.0	8.10	20	200	100	15.0
TPSMC10A	9.50	10.5	1.0	8.55	20	50	103	14.5
TPSMC11	9.90	12.1	1.0	8.92	5.0	50	92.6	16.2
TPSMC11A	10.5	11.6	1.0	9.40	5.0	10	96.2	15.6
TPSMC12	10.8	13.2	1.0	9.72	2.0	10	86.7	17.3
TPSMC12A	11.4	12.6	1.0	10.2	2.0	10	89.8	16.7
TPSMC13	11.7	14.3	1.0	10.5	2.0	10	78.9	19.0
TPSMC13A	12.4	13.7	1.0	11.1	2.0	10	82.4	18.2
TPSMC15	13.5	16.5	1.0	12.1	1.0	10	68.2	22.0
TPSMC15A	14.3	15.8	1.0	12.8	1.0	10	70.8	21.2
TPSMC16	14.4	17.6	1.0	12.9	1.0	10	63.8	23.5
TPSMC16A	15.2	16.8	1.0	13.6	1.0	10	66.7	22.5
TPSMC18	16.2	19.8	1.0	14.5	1.0	10	56.6	26.5
TPSMC18A	17.1	18.9	1.0	15.3	1.0	10	59.5	25.2
TPSMC20	18.0	22.0	1.0	16.2	1.0	10	51.5	29.1
TPSMC20A	19.0	21.0	1.0	17.1	1.0	10	54.2	27.7
TPSMC22	19.8	24.2	1.0	17.8	1.0	10	47.0	31.9
TPSMC22A	20.9	23.1	1.0	18.8	1.0	10	49.0	30.6
TPSMC24	21.6	26.4	1.0	19.4	1.0	10	43.2	34.7
TPSMC24A	22.8	25.2	1.0	20.5	1.0	10	45.2	33.2
TPSMC27	24.3	29.7	1.0	21.8	1.0	10	38.4	39.1
TPSMC27A	25.7	28.4	1.0	23.1	1.0	10	40.0	37.5
TPSMC30	27.0	33.0	1.0	24.3	1.0	10	34.5	43.5
TPSMC30A	28.5	31.5	1.0	25.6	1.0	10	36.2	41.4
TPSMC33	29.7	36.3	1.0	26.8	1.0	10	31.4	47.7
TPSMC33A	31.4	34.7	1.0	28.2	1.0	10	32.8	45.7
TPSMC36	32.4	39.6	1.0	29.1	1.0	10	28.8	52.0
TPSMC36A	34.2	37.8	1.0	30.8	1.0	10	30.1	49.9
TPSMC39	35.1	42.9	1.0	31.6	1.0	10	26.6	56.4
TPSMC39A	37.1	41.0	1.0	33.3	1.0	10	27.8	53.9
TPSMC43	38.7	47.3	1.0	34.8	1.0	10	24.2	61.9
TPSMC43A	40.9	45.2	1.0	36.8	1.0	10	25.3	59.3

Notes :

- (1) V_{BR} measured after I_t applied for 300 μs ., I_t = square wave pulse or equivalent
- (2) "PSMC" will be omitted on marking of the diode



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	IF(AV)	@ Tc				VF	@ IF	
	(A)	(°C)				(V)	(V)	

KBP200 Series, 2 A, Case Type: KBP



KBP200	2.0	50	20	50	60	1.0	1.0	10
KBP201	2.0	50	40	100	60	1.0	1.0	10
KBP202	2.0	50	80	200	60	1.0	1.0	10
KBP204	2.0	50	125	400	60	1.0	1.0	10
KBP206	2.0	50	250	600	60	1.0	1.0	10
KBP208	2.0	50	380	800	60	1.0	1.0	10
KBP210	2.0	50	440	1000	60	1.0	1.0	10

KBL400 Series, 4 A, Case Type: KBL



KBL400	4.0	50	20	50	200	1.1	4.0	10
KBL401	4.0	50	40	100	200	1.1	4.0	10
KBL402	4.0	50	80	200	200	1.1	4.0	10
KBL404	4.0	50	125	400	200	1.1	4.0	10
KBL406	4.0	50	250	600	200	1.1	4.0	10
KBL408	4.0	50	380	800	200	1.1	4.0	10
KBL410	4.0	50	440	1000	200	1.1	4.0	10

KBU4A-M Series, 4 A, Case Type: KBU



KBU4A	4.0	30	-	50	200	1.0	4.0	5.0
KBU4B	4.0	30	-	100	200	1.0	4.0	5.0
KBU4D	4.0	30	-	200	200	1.0	4.0	5.0
KBU4G	4.0	30	-	400	200	1.0	4.0	5.0
KBU4J	4.0	30	-	600	200	1.0	4.0	5.0
KBU4K	4.0	30	-	800	200	1.0	4.0	5.0
KBU4M	4.0	30	-	1000	200	1.0	4.0	5.0

KBU6A-M Series, 6 A, Case Type: KBU



KBU6A	6.0	100	-	50	250	1.0	6.0	5.0
KBU6B	6.0	100	-	100	250	1.0	6.0	5.0
KBU6D	6.0	100	-	200	250	1.0	6.0	5.0
KBU6G	6.0	100	-	400	250	1.0	6.0	5.0
KBU6J	6.0	100	-	600	250	1.0	6.0	5.0
KBU6K	6.0	100	-	800	250	1.0	6.0	5.0
KBU6M	6.0	100	-	1000	250	1.0	6.0	5.0



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

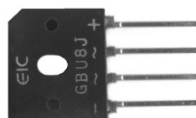
Type No.	Max. Average Forward Rectified Current			Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C			Max. Reverse Current at Ta = 25°C
	IF(AV)	@	Tc				VF	@	IF	
	(A)		(°C)				(V)		(A)	
				(V)	(V)	(A)	(V)		(A)	(μA)

KBU8A-M Series, 8 A, Case Type: KBU



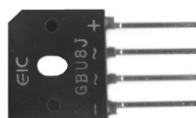
KBU8A	8.0	65	-	50	250	1.0	8.0	10
KBU8B	8.0	65	-	100	250	1.0	8.0	10
KBU8D	8.0	65	-	200	250	1.0	8.0	10
KBU8G	8.0	65	-	400	250	1.0	8.0	10
KBU8J	8.0	65	-	600	250	1.0	8.0	10
KBU8K	8.0	65	-	800	250	1.0	8.0	10
KBU8M	8.0	65	-	1000	250	1.0	8.0	10

GBU4A-M Series, 4 A, Case Type: GBU



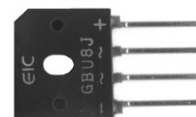
GBU4A	4.0	100	-	50	80	1.0	4.0	5.0
GBU4B	4.0	100	-	100	80	1.0	4.0	5.0
GBU4D	4.0	100	-	200	80	1.0	4.0	5.0
GBU4G	4.0	100	-	400	80	1.0	4.0	5.0
GBU4J	4.0	100	-	600	80	1.0	4.0	5.0
GBU4K	4.0	100	-	800	80	1.0	4.0	5.0
GBU4M	4.0	100	-	1000	80	1.0	4.0	5.0

GBU6A-M Series, 6 A, Case Type: GBU



GBU6A	6.0	90	-	50	175	1.0	6.0	5.0
GBU6B	6.0	90	-	100	175	1.0	6.0	5.0
GBU6D	6.0	90	-	200	175	1.0	6.0	5.0
GBU6G	6.0	90	-	400	175	1.0	6.0	5.0
GBU6J	6.0	90	-	600	175	1.0	6.0	5.0
GBU6K	6.0	90	-	800	175	1.0	6.0	5.0
GBU6M	6.0	90	-	1000	175	1.0	6.0	5.0

GBU8A-M Series, 8 A, Case Type: GBU



GBU8A	8.0	100	-	50	200	1.0	8.0	5.0
GBU8B	8.0	100	-	100	200	1.0	8.0	5.0
GBU8D	8.0	100	-	200	200	1.0	8.0	5.0
GBU8G	8.0	100	-	400	200	1.0	8.0	5.0
GBU8J	8.0	100	-	600	200	1.0	8.0	5.0
GBU8K	8.0	100	-	800	200	1.0	8.0	5.0
GBU8M	8.0	100	-	1000	200	1.0	8.0	5.0



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc		VRRM	IFSM	VF	@ IF	IR
DIP	SIP	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

RBV400 Series, 4 A, Case Type: RBV4

	RBV401	4.0	50	-	100	80	1.05	2.0	10
	RBV402	4.0	50	-	200	80	1.05	2.0	10
	RBV404	4.0	50	-	400	80	1.10	2.0	10
	RBV406	4.0	50	-	600	80	1.10	2.0	10
	RBV408	4.0	50	-	800	80	1.10	2.0	10
	RBV410	4.0	50	-	1000	80	1.10	2.0	10

D3SB10 Series, 4 A, Case Type: RBV4

	D3SB10	4.0	25	-	100	120	1.05	2.0	10
	D3SB20	4.0	25	-	200	120	1.05	2.0	10
	D3SB40	4.0	25	-	400	120	1.10	2.0	10
	D3SB60	4.0	25	-	600	120	1.10	2.0	10
	D3SB80	4.0	25	-	800	120	1.10	2.0	10
	D4SB80	4.0	108	-	800	150	0.95	2.0	10

D3SBA10 Series, 4 A, Case Type: RBV4

	D3SBA10	4.0	25	-	100	80	1.05	2.0	10
	D3SBA20	4.0	25	-	200	80	1.05	2.0	10
	D3SBA40	4.0	25	-	400	80	1.05	2.0	10
	D3SBA60	4.0	25	-	600	80	1.05	2.0	10
	D3SBA80	4.0	25	-	800	80	1.05	2.0	10
	D3SBA100	4.0	25	-	1000	80	1.05	2.0	10

D5SBA10 Series, 6 A, Case Type: RBV25

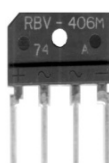
	D5SBA10	6.0	25	-	100	120	1.05	3.0	10
	D5SBA20	6.0	25	-	200	120	1.05	3.0	10
	D5SBA40	6.0	25	-	400	120	1.10	3.0	10
	D5SBA60	6.0	25	-	600	120	1.10	3.0	10

BR600/RBV600 Series, 6 A, Case Type: BR6/RBV25

BR600	RBV600	6.0	50	20	50	200	1.0	3.0	10
BR601	RBV601	6.0	50	40	100	200	1.0	3.0	10
BR602	RBV602	6.0	50	80	200	200	1.0	3.0	10
BR604	RBV604	6.0	50	125	400	200	1.0	3.0	10
BR606	RBV606	6.0	50	250	600	200	1.0	3.0	10
BR608	RBV608	6.0	50	380	800	200	1.0	3.0	10
BR610	RBV610	6.0	50	440	1000	200	1.0	3.0	10



BR6



RBV4



RBV25



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc		VRRM	IFSM	VF	@ IF	IR
DIP	SIP	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

RBV600D Series, 6 A, Case Type: RBV25

	RBV600D	6.0	50	20	50	300	1.0	6.0	10
	RBV601D	6.0	50	40	100	300	1.0	6.0	10
	RBV602D	6.0	50	80	200	300	1.0	6.0	10
	RBV604D	6.0	50	125	400	300	1.0	6.0	10
	RBV606D	6.0	50	250	600	300	1.0	6.0	10
	RBV608D	6.0	50	380	800	300	1.0	6.0	10
	RBV610D	6.0	50	440	1000	300	1.0	6.0	10

BR800/RBV800 Series, 8 A, Case Type: BR10/RBV25

BR800	RBV800	8.0	50	20	50	300	1.0	4.0	10
BR801	RBV801	8.0	50	40	100	300	1.0	4.0	10
BR802	RBV802	8.0	50	80	200	300	1.0	4.0	10
BR804	RBV804	8.0	50	125	400	300	1.0	4.0	10
BR806	RBV806	8.0	50	250	600	300	1.0	4.0	10
BR808	RBV808	8.0	50	380	800	300	1.0	4.0	10
BR810	RBV810	8.0	50	440	1000	300	1.0	4.0	10

RBV800D Series, 8 A, Case Type: RBV25

	RBV800D	8.0	50	20	50	300	1.0	8.0	10
	RBV801D	8.0	50	40	100	300	1.0	8.0	10
	RBV802D	8.0	50	80	200	300	1.0	8.0	10
	RBV804D	8.0	50	125	400	300	1.0	8.0	10
	RBV806D	8.0	50	250	600	300	1.0	8.0	10
	RBV808D	8.0	50	380	800	300	1.0	8.0	10
	RBV810D	8.0	50	440	1000	300	1.0	8.0	10

BR1000/RBV1000 Series, 10 A, Case Type: BR10/RBV25

BR1000	RBV1000	10	55	20	50	300	1.0	5.0	10
BR1001	RBV1001	10	55	40	100	300	1.0	5.0	10
BR1002	RBV1002	10	55	80	200	300	1.0	5.0	10
BR1004	RBV1004	10	55	125	400	300	1.0	5.0	10
BR1006	RBV1006	10	55	250	600	300	1.0	5.0	10
BR1008	RBV1008	10	55	380	800	300	1.0	5.0	10
BR1010	RBV1010	10	55	440	1000	300	1.0	5.0	10



BR6



RBV25



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc		VRRM	IFSM	VF	@ IF	IR
DIP	SIP	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

RBV1000D Series, 10 A, Case Type: RBV25

	RBV1000D	10	55	20	50	300	1.1	10	10
	RBV1001D	10	55	40	100	300	1.1	10	10
	RBV1002D	10	55	80	200	300	1.1	10	10
	RBV1004D	10	55	125	400	300	1.1	10	10
	RBV1006D	10	55	250	600	300	1.1	10	10
	RBV1008D	10	55	380	800	300	1.1	10	10
	RBV1010D	10	55	440	1000	300	1.1	10	10

KBPC1000 Series, 10 A, Case Type: BR50M

KBPC1000		10	55	-	50	200	1.2	5.0	10
KBPC1001		10	55	-	100	200	1.2	5.0	10
KBPC1002		10	55	-	200	200	1.2	5.0	10
KBPC1004		10	55	-	400	200	1.2	5.0	10
KBPC1006		10	55	-	600	200	1.2	5.0	10
KBPC1008		10	55	-	800	200	1.2	5.0	10
KBPC1010		10	55	-	1000	200	1.2	5.0	10

BR1500/RBV1500 Series, 15 A, Case Type: BR50/RBV25

BR1500	RBV1500	15	55	20	50	300	1.1	7.5	10
BR1501	RBV1501	15	55	40	100	300	1.1	7.5	10
BR1502	RBV1502	15	55	80	200	300	1.1	7.5	10
BR1504	RBV1504	15	55	125	400	300	1.1	7.5	10
BR1506	RBV1506	15	55	250	600	300	1.1	7.5	10
BR1508	RBV1508	15	55	380	800	300	1.1	7.5	10
BR1510	RBV1510	15	55	440	1000	300	1.1	7.5	10

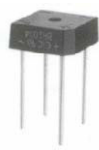
* For wire leads use suffix "W" for Case Type : BR50W

RBV1500D Series, 15 A, Case Type: RBV25

	RBV1500D	15	55	20	50	300	1.1	15	10
	RBV1501D	15	55	40	100	300	1.1	15	10
	RBV1502D	15	55	80	200	300	1.1	15	10
	RBV1504D	15	55	125	400	300	1.1	15	10
	RBV1506D	15	55	250	600	300	1.1	15	10
	RBV1508D	15	55	380	800	300	1.1	15	10
	RBV1510D	15	55	440	1000	300	1.1	15	10



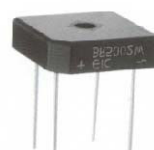
RBV25



BR10



BR50



BR50W



BR50M



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc				VF	@ IF	
DIP	SIP	(A)	(°C)	(V)	VRRM (V)	IFSM (A)	(V)	(A)	IR (μA)

KBPC1500 Series, 15 A, Case Type: BR50M

KBPC1500		15	55	-	50	300	1.2	7.5	10
KBPC1501		15	55	-	100	300	1.2	7.5	10
KBPC1502		15	55	-	200	300	1.2	7.5	10
KBPC1504		15	55	-	400	300	1.2	7.5	10
KBPC1506		15	55	-	600	300	1.2	7.5	10
KBPC1508		15	55	-	800	300	1.2	7.5	10
KBPC1510		15	55	-	1000	300	1.2	7.5	10

S15VB20 Series, 15 A, Case Type: BR50

S15VB20		15	83	-	200	200	1.05	7.5	10
S15VB60		15	83	-	600	200	1.05	7.5	10

D20XB20 Series, 20 A, Case Type: RBV25

	D20XB20	20	87	-	200	240	1.1	10	10
	D20XB60	20	87	-	600	240	1.1	10	10
	D20XB80	20	87	-	800	240	1.1	10	10
	D20XB100	20	87	-	1000	240	1.1	10	10

BR2500/RBV2500 Series, 25 A, Case Type: BR50/RBV25

BR2500	RBV2500	25	55	20	50	300	1.1	12.5	10
BR2501	RBV2501	25	55	40	100	300	1.1	12.5	10
BR2502	RBV2502	25	55	80	200	300	1.1	12.5	10
BR2504	RBV2504	25	55	125	400	300	1.1	12.5	10
BR2506	RBV2506	25	55	250	600	300	1.1	12.5	10
BR2508	RBV2508	25	55	380	800	300	1.1	12.5	10
BR2510	RBV2510	25	55	440	1000	300	1.1	12.5	10

* For wire leads use suffix "W" for Case Type : BR50W

D25XB20 Series, 25 A, Case Type: RBV25

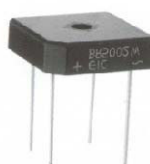
	D25XB20	25	98	-	200	350	1.05	12.5	10
	D25XB60	25	98	-	600	350	1.05	12.5	10



RBV25



BR50



BR50W



BR50M



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc		VRRM	IFSM	VF	@ IF	IR
DIP	SIP	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

GBJ2500 Series, 25 A, Case Type: RBV25

	GBJ2500	25	100	-	50	300	1.1	12.5	10
	GBJ2501	25	100	-	100	300	1.1	12.5	10
	GBJ2502	25	100	-	200	300	1.1	12.5	10
	GBJ2504	25	100	-	400	300	1.1	12.5	10
	GBJ2506	25	100	-	600	300	1.1	12.5	10
	GBJ2508	25	100	-	800	300	1.1	12.5	10
	GBJ2510	25	100	-	1000	300	1.1	12.5	10

S25VB20 Series, 25 A, Case Type: BR50

S25VB20		25	85	-	200	400	1.05	12.5	10
S25VB60		25	85	-	600	400	1.05	12.5	10

RBV2500 Series, 25 A, Case Type: RBV25

	RBV2500D	25	55	20	50	400	1.1	25	10
	RBV2501D	25	55	40	100	400	1.1	25	10
	RBV2502D	25	55	80	200	400	1.1	25	10
	RBV2504D	25	55	125	400	400	1.1	25	10
	RBV2506D	25	55	250	600	400	1.1	25	10
	RBV2508D	25	55	380	800	400	1.1	25	10
	RBV2510D	25	55	440	1000	400	1.1	25	10

KBPC2500 Series, 25 A, Case Type: BR50M

KBPC2500		25	55	-	50	300	1.1	12.5	10
KBPC2501		25	55	-	100	300	1.1	12.5	10
KBPC2502		25	55	-	200	300	1.1	12.5	10
KBPC2504		25	55	-	400	300	1.1	12.5	10
KBPC2506		25	55	-	600	300	1.1	12.5	10
KBPC2508		25	55	-	800	300	1.1	12.5	10
KBPC2510		25	55	-	1000	300	1.1	12.5	10



RBV25



BR50



BR50W



BR50M



Silicon Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.		Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
		IF(AV)	@ Tc		VRRM	IFSM	VF	@ IF	IR
DIP	SIP	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

KBPC3500 Series, 35 A, Case Type: BR50M

KBPC3500		35	55	-	50	400	1.1	17.5	10
KBPC3501		35	55	-	100	400	1.1	17.5	10
KBPC3502		35	55	-	200	400	1.1	17.5	10
KBPC3504		35	55	-	400	400	1.1	17.5	10
KBPC3506		35	55	-	600	400	1.1	17.5	10
KBPC3508		35	55	-	800	400	1.1	17.5	10
KBPC3510		35	55	-	1000	400	1.1	17.5	10

BR3500/RBV3500 Series, 35 A, Case Type: BR50/RBV25

BR3500	RBV3500	35	55	20	50	400	1.1	17.5	10
BR3501	RBV3501	35	55	40	100	400	1.1	17.5	10
BR3502	RBV3502	35	55	80	200	400	1.1	17.5	10
BR3504	RBV3504	35	55	125	400	400	1.1	17.5	10
BR3506	RBV3506	35	55	250	600	400	1.1	17.5	10
BR3508	RBV3508	35	55	380	800	400	1.1	17.5	10
BR3510	RBV3510	35	55	440	1000	400	1.1	17.5	10

* For wire leads use suffix "W" for Case Type : BR50W

BR5000/RBV5000 Series, 50 A, Case Type: BR50/RBV25

BR5000	RBV5000	50	55	20	50	400	1.1	25	10
BR5001	RBV5001	50	55	40	100	400	1.1	25	10
BR5002	RBV5002	50	55	80	200	400	1.1	25	10
BR5004	RBV5004	50	55	125	400	400	1.1	25	10
BR5006	RBV5006	50	55	250	600	400	1.1	25	10
BR5008	RBV5008	50	55	380	800	400	1.1	25	10
BR5010	RBV5010	50	55	440	1000	400	1.1	25	10

* For wire leads use suffix "W" for Case Type : BR50W

KBPC5000 Series, 50 A, Case Type: BR50M

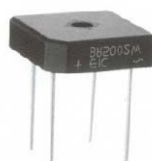
KBPC5000		50	55	-	50	400	1.1	25	10
KBPC5001		50	55	-	100	400	1.1	25	10
KBPC5002		50	55	-	200	400	1.1	25	10
KBPC5004		50	55	-	400	400	1.1	25	10
KBPC5006		50	55	-	600	400	1.1	25	10
KBPC5008		50	55	-	800	400	1.1	25	10
KBPC5010		50	55	-	1000	400	1.1	25	10



RBV25



BR50



BR50W



BR50M



Glass Passivated Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	I _{F(AV)}	@ T _C				V _F	@ I _F	
	(A)	(°C)				(V)	(A)	

W005G Series, 1.5 A, Case Type: WOB



W005G	1.5	25	-	50	50	1.0	1.0	5
W01G	1.5	25	-	100	50	1.0	1.0	5
W02G	1.5	25	-	200	50	1.0	1.0	5
W04G	1.5	25	-	400	50	1.0	1.0	5
W06G	1.5	25	-	600	50	1.0	1.0	5
W08G	1.5	25	-	800	50	1.0	1.0	5
W10G	1.5	25	-	1000	50	1.0	1.0	5

KBL400G Series, 4 A, Case Type: KBL



KBL400G	4.0	50 (Ta)	-	50	150	1.1	4.0	10
KBL401G	4.0	50 (Ta)	-	100	150	1.1	4.0	10
KBL402G	4.0	50 (Ta)	-	200	150	1.1	4.0	10
KBL404G	4.0	50 (Ta)	-	400	150	1.1	4.0	10
KBL406G	4.0	50 (Ta)	-	600	150	1.1	4.0	10
KBL408G	4.0	50 (Ta)	-	800	150	1.1	4.0	10
KBL410G	4.0	50 (Ta)	-	1000	150	1.1	4.0	10

GBPC6005 Series, 6 A, Case Type: BR6

GBPC6005	6.0	50	-	50	175	1.0	3.0	5.0
GBPC601	6.0	50	-	100	175	1.0	3.0	5.0
GBPC602	6.0	50	-	200	175	1.0	3.0	5.0
GBPC604	6.0	50	-	400	175	1.0	3.0	5.0
GBPC606	6.0	50	-	600	175	1.0	3.0	5.0
GBPC608	6.0	50	-	800	175	1.0	3.0	5.0
GBPC610	6.0	50	-	1000	175	1.0	3.0	5.0

GBPC15005 Series, 15 A, Case Type: BR50

GBPC15005	15	50	-	50	300	1.1	7.5	5.0
GBPC1501	15	50	-	100	300	1.1	7.5	5.0
GBPC1502	15	50	-	200	300	1.1	7.5	5.0
GBPC1504	15	50	-	400	300	1.1	7.5	5.0
GBPC1506	15	50	-	600	300	1.1	7.5	5.0
GBPC1508	15	50	-	800	300	1.1	7.5	5.0
GBPC1510	15	50	-	1000	300	1.1	7.5	5.0



BR6



BR50



Glass Passivated Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current			Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C			Max. Reverse Current at Ta = 25°C
	I _F (AV)	@	T _c				V _F	@	I _F	
	(A)		(°C)				(V)		(A)	
				(V)	(V)	(A)	(V)		(A)	(μA)

GBPC25005 Series, 25 A, Case Type: BR50

GBPC25005	25	50	-	50	300	1.1	12.5	5.0
GBPC2501	25	50	-	100	300	1.1	12.5	5.0
GBPC2502	25	50	-	200	300	1.1	12.5	5.0
GBPC2504	25	50	-	400	300	1.1	12.5	5.0
GBPC2506	25	50	-	600	300	1.1	12.5	5.0
GBPC2508	25	50	-	800	300	1.1	12.5	5.0
GBPC2510	25	50	-	1000	300	1.1	12.5	5.0

GBPC25005W Series, 25 A, Case Type: BR50W

GBPC25005W	25	50	-	50	300	1.1	12.5	5.0
GBPC2501W	25	50	-	100	300	1.1	12.5	5.0
GBPC2502W	25	50	-	200	300	1.1	12.5	5.0
GBPC2504W	25	50	-	400	300	1.1	12.5	5.0
GBPC2506W	25	50	-	600	300	1.1	12.5	5.0
GBPC2508W	25	50	-	800	300	1.1	12.5	5.0
GBPC2510W	25	50	-	1000	300	1.1	12.5	5.0

GBPC35005 Series, 35 A, Case Type: BR50

GBPC35005	35	50	-	50	400	1.1	17.5	5.0
GBPC3501	35	50	-	100	400	1.1	17.5	5.0
GBPC3502	35	50	-	200	400	1.1	17.5	5.0
GBPC3504	35	50	-	400	400	1.1	17.5	5.0
GBPC3506	35	50	-	600	400	1.1	17.5	5.0
GBPC3508	35	50	-	800	400	1.1	17.5	5.0
GBPC3510	35	50	-	1000	400	1.1	17.5	5.0



BR50



BR50W



Mini Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	IF(AV)	@ Tc				VF	@ IF	
	(A)	(°C)	(V)	VRRM (V)	IFSM (A)	(V)	(A)	IR (μA)

MB1S Series, 0.5 A, Case Type: MBS



MB1S	0.5	30	-	100	35	1.0	0.4	5.0
MB2S	0.5	30	-	200	35	1.0	0.4	5.0
MB4S	0.5	30	-	400	35	1.0	0.4	5.0
MB6S	0.5	30	-	600	35	1.0	0.4	5.0
MB8S	0.5	30	-	800	35	1.0	0.4	5.0
MB10S	0.5	30	-	1000	35	1.0	0.4	5.0

MB1M Series, 0.5 A, Case Type: MBM



MB1M	0.5	30	-	100	35	1.0	0.4	5.0
MB2M	0.5	30	-	200	35	1.0	0.4	5.0
MB4M	0.5	30	-	400	35	1.0	0.4	5.0
MB6M	0.5	30	-	600	35	1.0	0.4	5.0
MB8M	0.5	30	-	800	35	1.0	0.4	5.0
MB10M	0.5	30	-	1000	35	1.0	0.4	5.0

S1ZB20 Series, 0.8 A, Case Type: MBS



S1ZB20	0.8	30	-	200	30	1.05	0.4	10
S1ZB60	0.8	30	-	600	30	1.05	0.4	10
S1ZB80	0.8	30	-	800	30	1.05	0.4	10

DB101 Series, 1 A, Case Type: DFM



DB101	1.0	40	-	50	40	1.1	1.0	5.0
DB102	1.0	40	-	100	40	1.1	1.0	5.0
DB103	1.0	40	-	200	40	1.1	1.0	5.0
DB104	1.0	40	-	400	40	1.1	1.0	5.0
DB105	1.0	40	-	600	40	1.1	1.0	5.0
DB106	1.0	40	-	800	40	1.1	1.0	5.0
DB107	1.0	40	-	1000	40	1.1	1.0	5.0

DF005S Series, 1 A, Case Type: DFS



DF005S	1.0	40	-	50	30	1.1	1.0	10
DF01S	1.0	40	-	100	30	1.1	1.0	10
DF02S	1.0	40	-	200	30	1.1	1.0	10
DF04S	1.0	40	-	400	30	1.1	1.0	10
DF06S	1.0	40	-	600	30	1.1	1.0	10
DF08S	1.0	40	-	800	30	1.1	1.0	10
DF10S	1.0	40	-	1000	30	1.1	1.0	10



Mini Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Reverse Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	IF(AV)	@ Tc				VF	@ IF	
	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)

DF005M Series, 1 A, Case Type: DFM



DF005M	1.0	40	-	50	30	1.1	1.0	5.0
DF01M	1.0	40	-	100	30	1.1	1.0	5.0
DF02M	1.0	40	-	200	30	1.1	1.0	5.0
DF04M	1.0	40	-	400	30	1.1	1.0	5.0
DF06M	1.0	40	-	600	30	1.1	1.0	5.0
DF08M	1.0	40	-	800	30	1.1	1.0	5.0
DF10M	1.0	40	-	1000	30	1.1	1.0	5.0

DF15005S Series, 1.5 A, Case Type: DFS



DF15005S	1.5	40	-	50	50	1.1	1.5	10
DF1501S	1.5	40	-	100	50	1.1	1.5	10
DF1502S	1.5	40	-	200	50	1.1	1.5	10
DF1504S	1.5	40	-	400	50	1.1	1.5	10
DF1506S	1.5	40	-	600	50	1.1	1.5	10
DF1508S	1.5	40	-	800	50	1.1	1.5	10
DF1510S	1.5	40	-	1000	50	1.1	1.5	10

DF15005M Series, 1.5 A, Case Type: DFM



DF15005M	1.5	40 (Ta)	-	50	50	1.1	1.5	5.0
DF1501M	1.5	40 (Ta)	-	100	50	1.1	1.5	5.0
DF1502M	1.5	40 (Ta)	-	200	50	1.1	1.5	5.0
DF1504M	1.5	40 (Ta)	-	400	50	1.1	1.5	5.0
DF1506M	1.5	40 (Ta)	-	600	50	1.1	1.5	5.0
DF1508M	1.5	40 (Ta)	-	800	50	1.1	1.5	5.0
DF1510M	1.5	40 (Ta)	-	1000	50	1.1	1.5	5.0



Avalanche Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Recurrent Peak Reverse Voltage	Avalanche Breakdown Voltage at 100 mA		Max. Forward Peak Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	IF(AV) @ Tc				Min.	Max.		IFSM	VF @ IF	
	(A)	(°C)	(V)	(V)			(V)			(V)

AKBL400 Series, 4 A, Case Type: KBL



AKBL400	4.0	50	20	50	100	550	200	1.1	4.0	10
AKBL401	4.0	50	40	100	150	600	200	1.1	4.0	10
AKBL402	4.0	50	80	200	250	700	200	1.1	4.0	10
AKBL404	4.0	50	125	400	450	900	200	1.1	4.0	10
AKBL406	4.0	50	250	600	700	1150	200	1.1	4.0	10
AKBL408	4.0	50	380	800	900	1350	200	1.1	4.0	10
AKBL410	4.0	50	440	1000	1100	1550	200	1.1	4.0	10

ABR600 Series, 6 A, Case Type: BR6



ABR600	6.0	50	20	50	100	550	200	1.0	3.0	10
ABR601	6.0	50	40	100	150	600	200	1.0	3.0	10
ABR602	6.0	50	80	200	250	700	200	1.0	3.0	10
ABR604	6.0	50	125	400	450	900	200	1.0	3.0	10
ABR606	6.0	50	250	600	700	1150	200	1.0	3.0	10
ABR608	6.0	50	380	800	900	1350	200	1.0	3.0	10
ABR610	6.0	50	440	1000	1100	1550	200	1.0	3.0	10

ABR800 Series, 8 A, Case Type: BR10



ABR800	8.0	50	20	50	100	550	300	1.0	4.0	10
ABR801	8.0	50	40	100	150	600	300	1.0	4.0	10
ABR802	8.0	50	80	200	250	700	300	1.0	4.0	10
ABR804	8.0	50	125	400	450	900	300	1.0	4.0	10
ABR806	8.0	50	250	600	700	1150	300	1.0	4.0	10
ABR808	8.0	50	380	800	900	1350	300	1.0	4.0	10
ABR810	8.0	50	440	1000	1100	1550	300	1.0	4.0	10

ABR1000 Series, 10 A, Case Type: BR10



ABR1000	10	50	20	50	100	550	300	1.0	5.0	10
ABR1001	10	50	40	100	150	600	300	1.0	5.0	10
ABR1002	10	50	80	200	250	700	300	1.0	5.0	10
ABR1004	10	50	125	400	450	900	300	1.0	5.0	10
ABR1006	10	50	250	600	700	1150	300	1.0	5.0	10
ABR1008	10	50	380	800	900	1350	300	1.0	5.0	10
ABR1010	10	50	440	1000	1100	1550	300	1.0	5.0	10



Avalanche Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Max. Average Forward Rectified Current		Input Voltage Recommended	Max. Recurrent Peak Reverse Voltage	Avalanche Breakdown Voltage at 100 mA		Max. Forward Peak Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C
	IF(AV) @ Tc				Min.	Max.		IFSM	VF @ IF	
	(A)	(°C)	(V)	(V)	(V)	(V)	(A)	(V)	(A)	(μA)

ABR1500 Series, 15 A, Case Type: BR50

ABR1500	15	55	20	50	100	550	300	1.1	7.5	10
ABR1501	15	55	40	100	150	600	300	1.1	7.5	10
ABR1502	15	55	80	200	250	700	300	1.1	7.5	10
ABR1504	15	55	125	400	450	900	300	1.1	7.5	10
ABR1506	15	55	250	600	700	1150	300	1.1	7.5	10
ABR1508	15	55	380	800	900	1350	300	1.1	7.5	10
ABR1510	15	55	440	1000	1100	1550	300	1.1	7.5	10

* For wire leads use suffix "W" for Case Type : BR50W

ABR2500 Series, 25 A, Case Type: BR50

ABR2500	25	55	20	50	100	550	300	1.1	12.5	10
ABR2501	25	55	40	100	150	600	300	1.1	12.5	10
ABR2502	25	55	80	200	250	700	300	1.1	12.5	10
ABR2504	25	55	125	400	450	900	300	1.1	12.5	10
ABR2506	25	55	250	600	700	1150	300	1.1	12.5	10
ABR2508	25	55	380	800	900	1350	300	1.1	12.5	10
ABR2510	25	55	440	1000	1100	1550	300	1.1	12.5	10

* For wire leads use suffix "W" for Case Type : BR50W

ABR3500 Series, 35 A, Case Type: BR50

ABR3500	35	55	20	50	100	550	300	1.1	17.5	10
ABR3501	35	55	40	100	150	600	300	1.1	17.5	10
ABR3502	35	55	80	200	250	700	300	1.1	17.5	10
ABR3504	35	55	125	400	450	900	300	1.1	17.5	10
ABR3506	35	55	250	600	700	1150	300	1.1	17.5	10
ABR3508	35	55	380	800	900	1350	300	1.1	17.5	10
ABR3510	35	55	440	1000	1100	1550	300	1.1	17.5	10

* For wire leads use suffix "W" for Case Type : BR50W

ABR5000 Series, 50 A, Case Type: BR50

ABR5000	50	55	20	50	100	550	400	1.1	25	10
ABR5001	50	55	40	100	150	600	400	1.1	25	10
ABR5002	50	55	80	200	250	700	400	1.1	25	10
ABR5004	50	55	125	400	450	900	400	1.1	25	10
ABR5006	50	55	250	600	700	1150	400	1.1	25	10
ABR5008	50	55	380	800	900	1350	400	1.1	25	10
ABR5010	50	55	440	1000	1100	1550	400	1.1	25	10

* For wire leads use suffix "W" for Case Type : BR50W



BR50



BR50W



Fast Recovery Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Maximum Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Forward Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C	Max. Reverse Recovery Time ⁽¹⁾
	I _F (AV)	@ T _c				V _F	@ I _F		
	(A)	(°C)	(V)	(V)	(A)	(V)	(A)	(μA)	(ns)

FKBL400 Series, 4 A, Case Type: KBL



FKBL400	4.0	50	20	50	150	1.4	4.0	10	150
FKBL401	4.0	50	40	100	150	1.4	4.0	10	150
FKBL402	4.0	50	80	200	150	1.4	4.0	10	150
FKBL404	4.0	50	125	400	150	1.4	4.0	10	150
FKBL406	4.0	50	250	600	150	1.4	4.0	10	250
FKBL408	4.0	50	380	800	150	1.4	4.0	10	500
FKBL410	4.0	50	440	1000	150	1.4	4.0	10	500

FBR600 Series, 6 A, Case Type: BR6



FBR600	6.0	50	20	50	150	1.3	3.0	10	150
FBR601	6.0	50	40	100	150	1.3	3.0	10	150
FBR602	6.0	50	80	200	150	1.3	3.0	10	150
FBR604	6.0	50	125	400	150	1.3	3.0	10	150
FBR606	6.0	50	250	600	150	1.3	3.0	10	250
FBR608	6.0	50	380	800	150	1.3	3.0	10	500
FBR610	6.0	50	440	1000	150	1.3	3.0	10	500

FKBP800 Series, 8 A, Case Type: BR10



FBR800	8.0	50	20	50	200	1.3	4.0	10	150
FBR801	8.0	50	40	100	200	1.3	4.0	10	150
FBR802	8.0	50	80	200	200	1.3	4.0	10	150
FBR804	8.0	50	125	400	200	1.3	4.0	10	150
FBR806	8.0	50	250	600	200	1.3	4.0	10	250
FBR808	8.0	50	380	800	200	1.3	4.0	10	500
FBR810	8.0	50	440	1000	200	1.3	4.0	10	500

FBR1000 Series, 10 A, Case Type: BR10



FBR1000	10	55	20	50	250	1.3	5.0	10	150
FBR1001	10	55	40	100	250	1.3	5.0	10	150
FBR1002	10	55	80	200	250	1.3	5.0	10	150
FBR1004	10	55	125	400	250	1.3	5.0	10	150
FBR1006	10	55	250	600	250	1.3	5.0	10	250
FBR1008	10	55	380	800	250	1.3	5.0	10	500
FBR1010	10	55	440	1000	250	1.3	5.0	10	500

Note : (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A



Fast Recovery Bridge Rectifiers

The plastic material carries U/L recognition 94V-0.

Type No.	Maximum Average Forward Rectified Current		Input Voltage Recommended	Max. Repetitive Peak Forward Voltage	Max. Peak Forward Surge Current	Max. Forward Voltage Drop at Ta = 25°C		Max. Reverse Current at Ta = 25°C	Max. Reverse Recovery Time ⁽¹⁾
	I _F (AV)	@ T _c				V _F	@ I _F		
	(A)	(°C)				(V)	(A)		
			(V)	V _{RRM}	I _{FSM}			I _R	T _{rr}
				(V)	(A)			(μA)	(ns)

FBR1500 Series, 15 A, Case Type: BR50

FBR1500	15	55	20	50	300	1.3	7.5	10	150
FBR1501	15	55	40	100	300	1.3	7.5	10	150
FBR1502	15	55	80	200	300	1.3	7.5	10	150
FBR1504	15	55	125	400	300	1.3	7.5	10	150
FBR1506	15	55	250	600	300	1.3	7.5	10	250
FBR1508	15	55	380	800	300	1.3	7.5	10	500
FBR1510	15	55	440	1000	300	1.3	7.5	10	500

* For wire leads use suffix "W" for Case Type : BR50W

FBR2500 Series, 25 A, Case Type: BR50

FBR2500	25	55	20	50	300	1.3	12.5	10	150
FBR2501	25	55	40	100	300	1.3	12.5	10	150
FBR2502	25	55	80	200	300	1.3	12.5	10	150
FBR2504	25	55	125	400	300	1.3	12.5	10	150
FBR2506	25	55	250	600	300	1.3	12.5	10	250
FBR2508	25	55	380	800	300	1.3	12.5	10	500
FBR2510	25	55	440	1000	300	1.3	12.5	10	500

* For wire leads use suffix "W" for Case Type : BR50W

FBR3500 Series, 35 A, Case Type: BR50

FBR3500	35	55	20	50	400	1.3	17.5	10	150
FBR3501	35	55	40	100	400	1.3	17.5	10	150
FBR3502	35	55	80	200	400	1.3	17.5	10	150
FBR3504	35	55	125	400	400	1.3	17.5	10	150
FBR3506	35	55	250	600	400	1.3	17.5	10	250
FBR3508	35	55	380	800	400	1.3	17.5	10	500
FBR3510	35	55	440	1000	400	1.3	17.5	10	500

* For wire leads use suffix "W" for Case Type : BR50W

FBR5000 Series, 50 A, Case Type: BR50

FBR5000	50	55	20	50	400	1.3	25	10	150
FBR5001	50	55	40	100	400	1.3	25	10	150
FBR5002	50	55	80	200	400	1.3	25	10	150
FBR5004	50	55	125	400	400	1.3	25	10	150
FBR5006	50	55	250	600	400	1.3	25	10	250
FBR5008	50	55	380	800	400	1.3	25	10	500
FBR5010	50	55	440	1000	400	1.3	25	10	500

* For wire leads use suffix "W" for Case Type : BR50W

Note : (1) Reverse Recovery test conditions : I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A



BR50



BR50W



Bi - Directional trigger - DIACS

The plastic material carries U/L recognition 94V-0.

Type No.	Breakdown Voltage			Breakover Voltage Symmetry	Dynamic Breakback Voltage	Breakover Current	Peak Pulse Current for 10 μ s 120 PPS Ta < 40 °C
	V _{(BR)1} and V _{(BR)2}			[V _{(BR)1}] - [V _{(BR)2}]	$\Delta V \pm$	I _{(BR)1} and I _{(BR)2}	I _{TRM}
	V(Min.)	V(Typ.)	V(Max.)	V(Max)	V(Min.)	μ A(Max.)	A(Max.)

D32P Series, Case Type: DO-41



D32P	27	32	37	3.0	5.0	100	2.0
D35P	30	35	40	3.0	5.0	100	2.0
D40P	35	40	45	3.0	5.0	100	2.0
D50P	42	50	58	4.0	8.0	100	1.6
D60P	56	60	70	4.0	10.0	100	1.6

DB3 & DB4, Case Type: DO-35



DB3	28	32	36	3.8	5.0	200	2.0
DB4	35	40	45	3.8	5.0	200	2.0

Thyristor - SIDAC

The plastic material carries U/L recognition 94V-0.

Type No.	Repetitive Peak Off-State Voltage	Breakover Voltage (60 Hz Sine Wave)		On-State RMS Current Conduction Angle of 360°	Peak Surge (Non-Repetitive) On-State Current One-cycle@ 60 Hz	Repetitive Peak Off-State Current @ 60Hz, V=V _{DRM}	Dynamic Holding Current R=0.1 K Ω ,60Hz	Breakover Current 60 Hz Sine Wave
	V _{DRM}	V _{BO} (Min.)	V _{BO} (Max.)	I _T (RMS)	I _{ISM}	I _{DRM}	I _{HO}	I _{BO}
	(V)	(V)	(V)	(A)	(A)	(μ A)	(mA)	(μ A)

ET013 Series, Case Type: DO-41



ET013	± 90	120	138	0.6	20	10	100	200
ET015	± 115	142	157	0.6	20	10	100	200
ET020	± 170	190	200	0.6	20	10	100	200

G105 Series, Case Type: DO-41



G105*	± 90	95	113	1.0	20	10	100	200
G120*	± 90	110	125	1.0	20	10	100	200
G130	± 90	120	135	1.0	20	10	100	200
G220*	± 180	205	230	1.0	20	10	100	200
G240*	± 180	220	250	1.0	20	10	100	200
G260	± 180	240	270	1.0	20	10	100	200
G270*	± 180	250	280	1.0	20	10	100	200

* Also available in Axial D2A Case Types. Use suffix "C" to order(e.g. G105C, G120C,...).



Packaging Information

Case Type	Packaging	Quantity per Box. (Pcs.)	Package size [mm. (inches)]	Quantity per carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)	Carton size [mm. (inches)]
R-1	BAG(200 Pcs)	6,000	72x255x135 (2.83x10.04x5.32)	30,000	7.42	8.35	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO (26 mm)	3,000	45x255x78 (1.77x10.04x3.07)	39,000	5.30	7.30	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO(52 mm)	5,000	72x255x135 (2.83x10.04x5.32)	25,000	5.00	6.20	260x370x150 (10.24x14.57x5.90)
M1A	BAG(300 Pcs)	7,500	72x255x135 (2.83x10.04x5.32)	37,500	7.75	8.16	260x370x150 (10.24x14.57x5.90)
	TAPE&AMMO (26 mm)	4,000	45x255x78 (1.77x10.04x3.07)	52,000	10.24	12.80	260x370x150 (10.24x14.57x5.90)
	TAPE&AMMO (52 mm)	5,000	72x255x135 (2.83x10.04x5.32)	25,000	5.55	6.00	260x370x150 (10.24x14.57x5.90)
DO-34 (Glass)	BULK	2,000	205x90x21 (8.07x3.54x0.82)	100,000	9.30	11.75	215x450x240 (8.46x17.71x9.45)
	TAPE & REEL	10,000	φ 330x81 (φ 12.992x3.189)	40,000	3.72	6.45	340x340x330 (13.39x13.39x12.99)
	TAPE & AMMO (26 mm)	5,000	45x255x78 (1.77x10.04x3.07)	65,000	5.30	6.30	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO (52 mm)	10,000	72x255x135 (2.83x10.04x5.32)	50,000	4.65	6.05	260x370x150 (10.24x14.57x5.90)
	BAG(500Pcs) & BULK	5,000	115x155x45 (4.53x6.10x1.78)	100,000	9.30	11.00	250x325x240 (9.84x12.80x9.45)
DO-35 (Glass)	BULK	2,000	205x90x21 (8.07x3.54x0.82)	100,000	12.70	15.10	215x450x240 (8.46x17.71x9.45)
	TAPE & REEL	10,000	φ 330x81 (φ 12.992x3.189)	40,000	5.08	7.80	340x340x325 (13.39x13.39x12.79)
	TAPE & AMMO (26 mm)	5,000	45x255x78 (1.77x10.04x3.07)	65,000	6.20	8.00	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO (52 mm)	10,000	72x255x135 (2.83x10.04x5.32)	50,000	6.35	7.75	260x370x150 (10.24x14.57x5.90)
	BAG(500Pcs) & BULK	5,000	92x170x50 (3.62x6.69x1.97)	100,000	12.70	14.60	185x395x285 (7.28x15.55x11.22)
DO-41 (Glass)	TAPE & REEL	5,000	φ 330x81 (φ 12.992x3.189)	20,000	5.10	7.30	340x340x325 (13.39x13.39x12.79)
	TAPE & AMMO (26 mm)	2,500	45x255x78 (1.77x10.04x3.07)	32,500	6.40	8.00	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO (52 mm)	5,000	72x255x135 (2.83x10.04x5.32)	25,000	6.38	7.45	260x370x150 (10.24x14.57x5.90)
	BAG(250Pcs) & BULK	2,500	92x170x50 (4.62x6.69x1.97)	50,000	12.75	14.65	250x325x240 (9.84x12.80x9.45)



Packaging Information

Case Type	Packaging	Quantity per Box. (Pcs.)	Package size [mm. (inches)]	Quantity per carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)	Carton size [mm. (inches)]
DO-41	BAG(200Pcs)	5,000	72x255x135 (2.83x10.04x5.32)	25,000	8.38	9.30	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	5,000	φ 330x81 (φ 12.992x3.189)	20,000	6.70	9.20	340x340x325 (13.39x13.39x12.78)
	TAPE & AMMO (26 mm)	2,000	45x255x78 (1.77x10.04x3.07)	26,000	5.90	7.00	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO (52 mm)	4,000	72x255x135 (2.83x10.04x5.32)	20,000	6.70	7.70	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO 120	3,000	72x255x120 (2.83x10.04x4.72)	15,000	5.03	6.00	260x370x140 (10.24x14.57x5.51)
DO-15	BAG(100Pcs)	3,000	72x255x135 (2.83x10.04x5.32)	15,000	6.00	6.90	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	3,000	φ 330x81 (φ 12.992x3.189)	12,000	4.86	6.97	340x340x325 (13.39x13.39x12.80)
	TAPE & AMMO	3,000	72x255x135 (2.83x10.04x5.32)	15,000	6.00	7.00	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO 120	2,500	72x255x120 (2.83x10.04x4.72)	12,500	5.00	6.00	260x370x140 (10.24x14.57x5.51)
D2	BAG(100Pcs)	2,500	72x255x135 (2.83x10.04x5.32)	12,500	5.88	6.85	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	3,000	φ 330x81 (φ 12.992x3.189)	12,000	5.64	7.75	340x340x325 (13.39x13.39x12.80)
	TAPE & AMMO	2,000	72x255x135 (2.83x10.04x5.32)	10,000	4.70	5.65	260x370x150 (10.24x14.57x5.90)
	TAPE & AMMO 120	1,500	72x255x120 (2.83x10.04x4.72)	7,500	3.53	4.40	260x370x140 (10.24x14.57x5.51)
	TAPE & AMMO (26mm)	1,000	45x255x78 (1.77x10.04x3.07)	13,000	4.72	5.95	260x370x150 (10.24x14.57x5.90)
D2A	BAG (100Pcs)	2,500	72x255x135 (2.83x10.04x5.32)	12,500	7.98	8.95	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	3,000	φ 330x81 (φ 12.992x3.189)	12,000	7.66	9.75	340x340x325 (13.39x13.39x12.80)
	TAPE & AMMO(52 mm)	2,000	72x255x135 (2.83x10.04x5.32)	10,000	6.38	7.30	260x370x150 (10.24x14.57x5.90)
DO-201	BAG (50Pcs)	1,500	72x255x135 (2.83x10.04x5.32)	7,500	6.98	8.00	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	1,250	φ 330x81 (φ 12.992x3.189)	5,000	4.65	6.70	340x340x325 (13.39x13.39x12.80)
	TAPE & AMMO	1,000	72x255x135 (2.83x10.04x5.32)	5,000	4.65	5.60	260x370x150 (10.24x14.57x5.90)



Packaging Information

Case Type	Packaging	Quantity per Box. (Pcs.)	Package size [mm. (inches)]	Quantity per carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)	Carton size [mm. (inches)]
DO-201AD	BAG(50Pcs)	1,500	72x255x135 (2.83x10.04x5.32)	7,500	8.61	9.60	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	1,250	φ 330x81 (φ 12.992x3.189)	5,000	5.74	7.80	340x340x325 (13.39x13.39x12.80)
	TAPE & AMMO	1,000	72x255x135 (2.83x10.04x5.32)	5,000	5.74	6.70	260x370x150 (10.24x14.57x5.90)
D6	BAG(20Pcs)	600	72x255x135 (2.83x10.04x5.32)	3,000	6.70	7.11	260x370x150 (10.24x14.57x5.90)
	TAPE & REEL	800	φ 330x81 (φ 12.992x3.189)	3,200	6.56	8.45	340x340x325 (13.39x13.39x12.80)
MiniMELF	REEL	3,000	φ 178x14.4 (φ 7.008x0.567)	120,000	3.72	6.90	215x405x265 (8.46x15.95x10.43)
	REEL	10,000	φ 330x14.4 (φ 12.992x0.567)	50,000	1.55	3.67	340x340x100 (13.39x13.39x3.94)
MELF	REEL	5,000	φ 330x14.4 (φ 12.992x0.567)	25,000	3.35	5.39	340x340x100 (13.39x13.39x3.94)
SMA(DO-214AC)	REEL	5,000	φ 330x18.4 (φ 12.992x0.724)	25,000	1.68	3.71	340x340x100 (13.39x13.39x3.94)
SMB(DO-214AA)	REEL	3,000	φ 330x18.4 (φ 12.992x0.724)	15,000	1.76	3.94	340x340x100 (13.39x13.39x3.94)
SMC(DO-214AB)	REEL	2,500	φ 330x22.4 (φ 12.992x0.882)	10,000	2.51	4.34	340x340x100 (13.39x13.39x3.94)
DO-215AC	REEL	3,000	φ 330x18.4 (φ 12.992x0.724)	15,000	1.28	3.56	340x340x100 (13.39x13.39x3.94)
DFS	REEL	1,500	φ 330x22.4 (φ 12.992x0.882)	7,500	2.85	4.45	340x340x100 (13.39x13.39x3.94)
MBS	REEL	3,000	φ 330x22.4 (φ 12.992x0.882)	15,000	1.92	3.00	340x340x100 (13.39x13.39x3.94)



Packaging Information

Case Type	Quantity per box (Pcs.)	Box size [mm. (inches)]	Quantity per carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)	Carton size [mm. (inches)]
DFM	50	440 Length (17.4 Length)	Plastic Tubes			
MBM	100	70x250x135 (2.75x9.84x5.31)	Plastic Tubes			
WOB	500	200x200x47 (7.87x7.87x1.85)	5,000	6.26	8.00	215x405x265 (8.46x15.95x10.43)
KBP	100	90x170x52 (3.54x6.69x1.97)	2,000	6.52	8.80	185x395x285 (7.28x15.55x11.22)
KBU	100	90x170x52 (3.54x6.69x1.97)	2,000	16.00	18.28	185x395x285 (7.28x15.55x11.22)
KBL	100	90x170x52 (3.54x6.69x1.97)	2,000	10.58	12.86	185x395x285 (7.28x15.55x11.22)
GBU	160	115x115x45 (4.53x6.10x1.77)	3,200	11.51	13.30	250x325x240 (4.53x6.10x1.77)
BR6	200	160x210x38 (6.30x8.27x1.50)	2,000	6.52	7.95	215x345x225 (8.46x13.58x8.86)
BR10	200	200x200x47 (7.87x7.87x1.85)	2,000	11.45	13.20	215x405x265 (8.46x15.95x10.43)
BR50	50	155x165x30 (6.10x6.50x1.18)	1,000	16.55	18.65	180x330x345 (7.09x12.99x13.58)
BR50W	40	155x165x30 (6.10x6.50x1.18)	800	12.52	14.60	180x330x345 (7.09x12.99x13.58)
BR50M	50	155x165x30 (6.10x6.50x1.18)	900	27.60	29.30	180x330x345 (7.09x12.99x13.58)
RBV4	120	115x155x45 (4.53x6.10x1.77)	2,400	10.27	12.10	250x325x240 (9.84x12.80x9.45)
RBV25 (6A)	100	115x155x45 (4.53x6.10x1.77)	2,000	15.60	17.40	250x325x240 (9.84x12.80x9.45)
RBV25 (8A-10A)	100	115x155x45 (4.53x6.10x1.77)	2,000	15.94	17.75	250x325x240 (9.84x12.80x9.45)
RBV25 (15A)	100	115x155x45 (4.53x6.10x1.77)	2,000	16.22	18.05	250x325x240 (9.84x12.80x9.45)
RBV25 (25A-50A)	100	115x155x45 (4.53x6.10x1.77)	2,000	16.31	18.15	250x325x240 (9.84x12.80x9.45)
CELL 3A	10,000	Bottle ϕ 70x120 (ϕ 2.76x4.72)	100,000	9.20	10.00	260x370x150 (10.24x14.57x5.90)
CELL 5A	10,000	Bottle ϕ 70x120 (ϕ 2.76x4.72)	100,000	15.40	16.20	260x370x150 (10.24x14.57x5.90)
CELL 8A	5,000	Bottle ϕ 70x120 (ϕ 2.76x4.72)	50,000	9.75	10.55	260x370x150 (10.24x14.57x5.90)
CELL 18A	5,000	Bottle ϕ 70x120 (ϕ 2.76x4.72)	50,000	12.15	12.95	260x370x150 (10.24x14.57x5.90)
CELL 25A	5,000	Bottle ϕ 70x120 (ϕ 2.76x4.72)	50,000	12.55	13.35	260x370x150 (10.24x14.57x5.90)



Packaging Information

Case Type	Quantity per box (Pcs.)	Box size [mm. (inches)]	Quantity per carton (Pcs.)	Net weight per carton (Kgs.)	Gross weight per carton (Kgs.)	Carton size [mm. (inches)]
5R	400	115x115x45 (4.53x6.10x1.77)	8,000	9.28	10.90	250x325x240 (9.84x12.80x9.45)
BUTTON CASE	2,000	72x255x120 (2.83x10.04x4.72)	10,000	18.18	19.00	260x370x140 (10.24x14.57x5.51)
MR	2,000	72x255x120 (2.83x10.04x4.72)	10,000	16.01	16.80	260x370x140 (10.24x14.57x5.51)
AR-L	200	305x84x41 (12.0x3.30x1.61)	6,000	16.39	19.04	310x420x255 (12.20x16.54x10.04)
MR-L	200	305x84x41 (12.0x3.30x1.61)	6,000	15.31	17.83	310x420x255 (12.20x16.54x10.04)
D2PAK	50	Tube 32x520x6 (1.23x20.52x0.24)	1,000	1.44	2.30	140x540x85 (5.51x21.26x3.35)
TO-220AB, AC	50	Tube 32x520x6 (1.23x20.52x0.24)	1,000	1.95	2.81	140x540x85 (5.51x21.26x3.35)
	500	160x210x38 (6.50x8.27x1.50)	5,000	9.39	10.80	250x325x240 (9.84x12.80x9.45)
ITO-220AB, AC	50	Tube 32x520x6 (1.23x20.52x0.24)	1,000	1.75	2.60	140x540x85 (5.51x21.26x3.35)
	500	160x210x38 (6.50x8.27x1.50)	5,000	8.75	10.15	250x325x240 (9.84x12.80x9.45)
TO-247AD	120	90x170x52 (3.54x6.69x1.97)	2,400	15.08	17.35	185x395x285 (7.28x15.55x11.22)

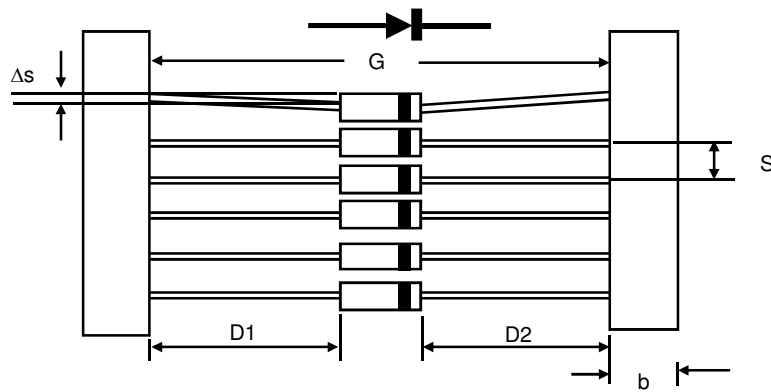
NEW PACKAGING (SURFACE MOUNT DIODES)

Package	Tape Width	Package size		Reel Size		Quantity per box (Pcs.)
	(mm)	(mm)	(inch)	(mm)	(inch)	
SOT-23	8	4.0 ± 0.1	0.157 ± 0.004	178	7	3,000
SOD-123FL	8	4.0 ± 0.1	0.157 ± 0.004	178	7	2,500
SOD-123	8	4.0 ± 0.1	0.157 ± 0.004	178	7	3,000
SOD-323	8	4.0 ± 0.1	0.157 ± 0.004	178	7	3,000
SOD-523	8	4.0 ± 0.1	0.157 ± 0.004	178	7	4,000

Packaging Information

TYPE DIMENSIONS (AXIAL LEAD DIODES)

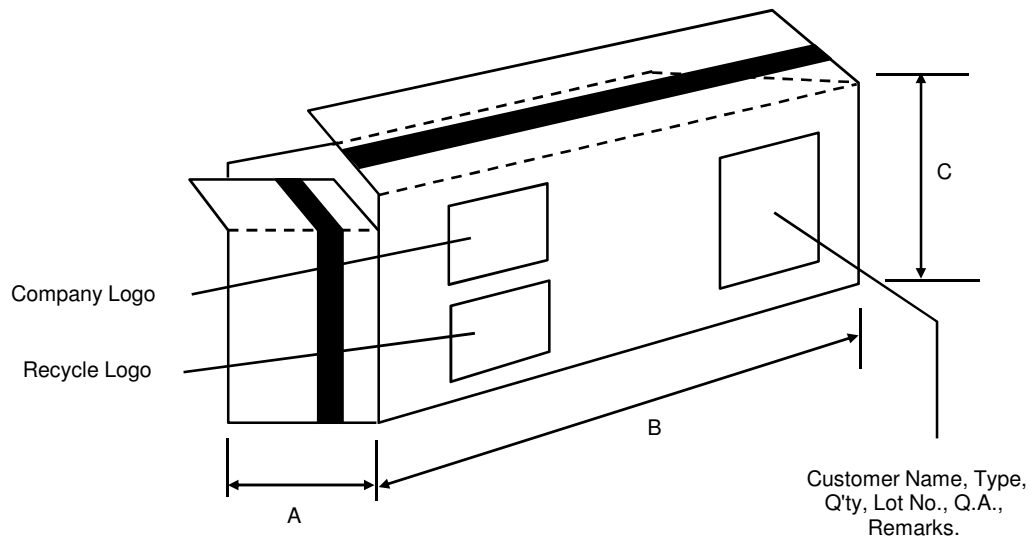
CASE TYPE (Outline)	Type Dimensions			
	S	Δs	b	G
DO-34, DO-35, DO-41 (Glass), DO-41, DO-15 R-1, M1A, D2, D2A	5 ± 0.5 (0.196 $\pm$ 0.0196)	1.2(0.047)	6 ± 1.05 (0.236 $\pm$ 0.039)	52 ± 1.50 (2.047 $\pm$ 0.059)
DO-34, DO-35, DO-41 (Glass), DO-41, DO-15 R-1, M1A, D2, D2A	5 ± 0.5 (0.196 $\pm$ 0.0196)	1.2(0.047)	6 ± 1.05 (0.236 $\pm$ 0.039)	26 ± 1.0 (1.023 $\pm$ 0.039)
DO-201, DO-201AD, D6	10 ± 0.5 (0.393 $\pm$ 0.0196)	1.2(0.047)	6 ± 1.05 (0.236 $\pm$ 0.039)	52 ± 1.50 (2.047 $\pm$ 0.059)





Packaging Information

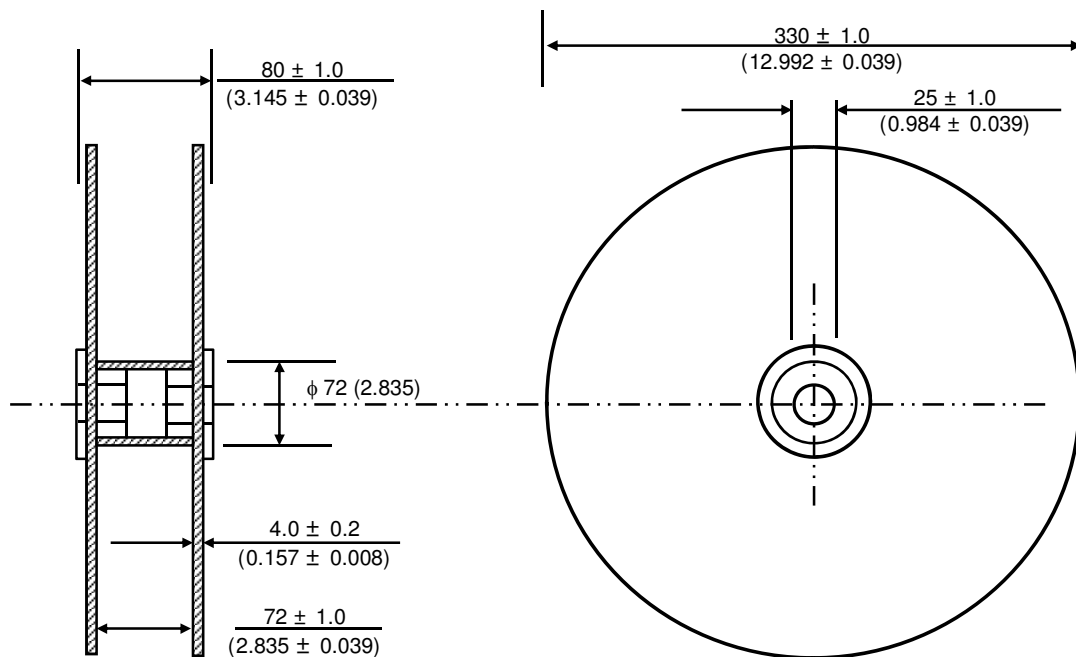
AMMOPACK PACKAGING (AXIAL LEAD DIODES)



Packaging	Type Dimensions [mm. (inches)]		
	Dimension "A"	Dimension "B"	Dimension "C"
26mm Horizontal	45 ± 2.0 (1.771 ± 0.079)	255 ± 2.0 (10.039 ± 0.079)	78 ± 2.0 (3.070 ± 0.079)
52mm Horizontal	72 ± 2.0 (2.834 ± 0.079)	255 ± 2.0 (10.039 ± 0.079)	135 ± 2.0 (5.314 ± 0.079)

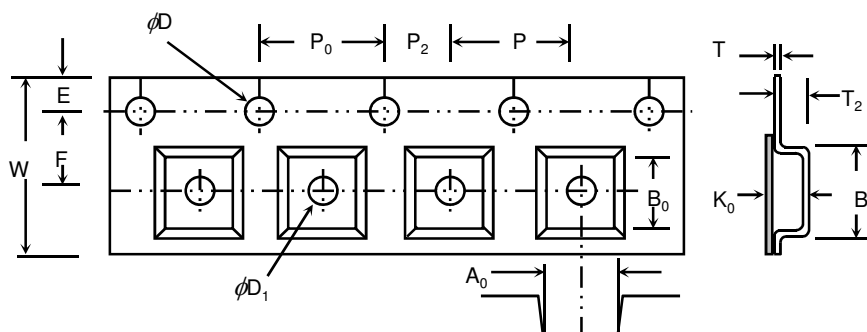
REEL PACKAGING (AXIAL LEAD DIODES)

DIMENSIONS IN mm. (inches)



Packaging Information

SURFACE MOUNT TAPE AND REEL PACKAGING



DIMENSIONS IN mm. (inches)

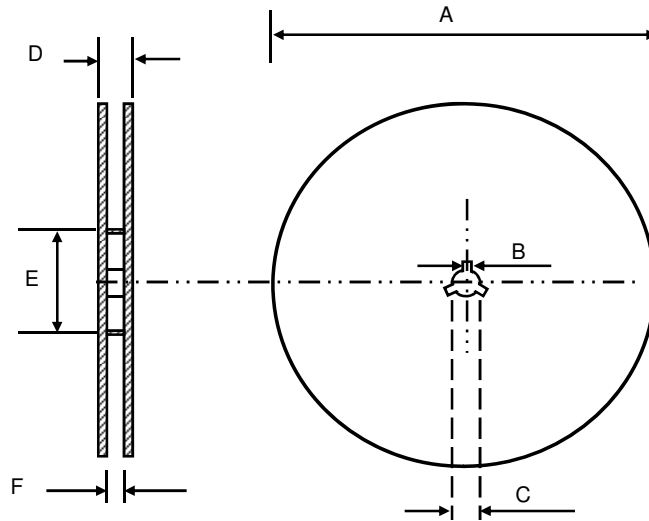
	Tape Size	D	E	P_0	T Max.	A_0, B_0, K_0	P_2
	8, 12, 16mm.	1.50 ± 0.10 (0.059 $\pm$ 0.004)	1.75 ± 0.1 (0.069 $\pm$ 0.004)	4.00 ± 0.1 (0.157 $\pm$ 0.004)	0.600 (0.024)	See Note 1	2.00 ± 0.05 (0.079 $\pm$ 0.002)
Case Type	Tape Size	W	P	B_1 Max.	F	T_2 Max.	D_1
MiniMELF, SOD-123FL, SOD-123, SOD-323, SOD-523, SOT-23	8mm.	8.00 ± 0.3 (0.314 $\pm$ 0.012)	4.00 ± 0.1 (0.157 $\pm$ 0.004)	4.2(0.165)	3.50 ± 0.05 (0.137 $\pm$ 0.002)	2.4(0.094)	1.00 ± 0.10 (0.039 $\pm$ 0.004)
MELF	12mm.	12.00 ± 0.3 (0.472 $\pm$ 0.012)	4.00 ± 0.1 (0.157 $\pm$ 0.004)	8.2(0.323)	5.50 ± 0.05 (0.217 $\pm$ 0.002)	4.5(0.177)	1.50 ± 0.25 (0.059 $\pm$ 0.001)
SMA	12mm.	12.00 ± 0.3 (0.472 $\pm$ 0.012)	4.00 ± 0.1 (0.157 $\pm$ 0.004)		5.50 ± 0.05 (0.217 $\pm$ 0.002)	2.54 ± 0.10 (0.100 $\pm$ 0.004)	1.50 ± 0.25 (0.059 $\pm$ 0.001)
SMB	12mm.	12.00 ± 0.3 (0.472 $\pm$ 0.012)	8.00 ± 0.1 (0.315 $\pm$ 0.004)		5.50 ± 0.05 (0.217 $\pm$ 0.002)	2.67 ± 0.10 (0.105 $\pm$ 0.004)	1.50 ± 0.25 (0.059 $\pm$ 0.001)
SMC	16mm.	16.00 ± 0.3 (0.629 $\pm$ 0.012)	8.00 ± 0.1 (0.315 $\pm$ 0.004)	12.1(0.476)	7.50 ± 0.1 (0.295 $\pm$ 0.004)	2.54 ± 0.10 (0.100 $\pm$ 0.004)	1.50 ± 0.25 (0.059 $\pm$ 0.001)
MBS	16mm.	16.00 ± 0.3 (0.629 $\pm$ 0.012)	8.00 ± 0.1 (0.315 $\pm$ 0.004)		7.50 ± 0.1 (0.295 $\pm$ 0.004)	2.54 ± 0.10 (0.100 $\pm$ 0.004)	1.50 ± 0.25 (0.059 $\pm$ 0.001)
DFS	16mm.	16.00 ± 0.3 (0.629 $\pm$ 0.012)	12.00 ± 0.1 (0.473 $\pm$ 0.004)		7.50 ± 0.1 (0.295 $\pm$ 0.004)	3.8 ± 0.10 (0.150 $\pm$ 0.004)	1.50 ± 0.25 (0.059 $\pm$ 0.001)

Note:

1. A_0 , B_0 , and K_0 are determined by the maximum dimensions of the component size. The clearance between the component and the cavity must be within 0.05 mm (0.002") min. to 0.5 mm (0.02") max. for 8mm tape and 12mm tape and 0.15mm(0.006") min. to 0.90 mm (0.035") max. for 16 mm. tape.

Packaging Information

REEL PACKAGING (SURFACE MOUNT DIODES)



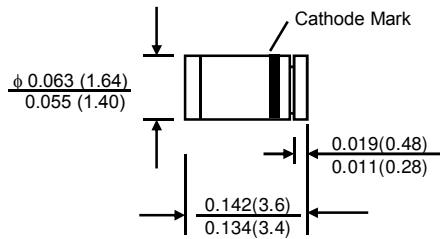
DIMENSIONS IN mm. (inches)

Tape Size	A max.	B max.	C	D max.	E min.	F max.
8 mm	178 ± 2.0 (7.0 ± 0.079) 330 ± 2.0 (13 ± 0.079)	2.5 (0.098)	13.0 ± 2.0 (0.51 ± 0.079)	14.4 (0.567)	100 (3.94)	9.9 (0.389)
12 mm	330 ± 2.0 (13 ± 0.079)	2.5 (0.098)	13.0 ± 2.0 (0.51 ± 0.079)	18.4 (0.724)	100 (3.94)	14.4 (0.567)
16 mm	330 ± 2.0 (13 ± 0.079)	2.5 (0.098)	13.0 ± 2.0 (0.51 ± 0.079)	22.4 (0.802)	100 (3.94)	18.4 (0.724)

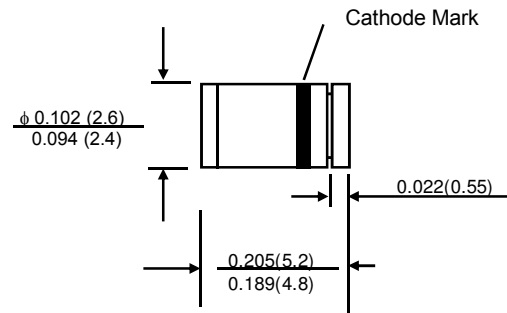
Package Outline

Dimension in inches and (millimeters)

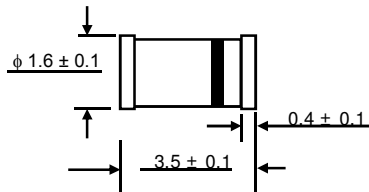
Mini MELF(LL-34)



MELF(LL-41)

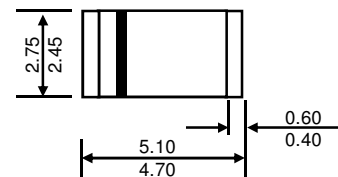


Mini MELF (Plastic)



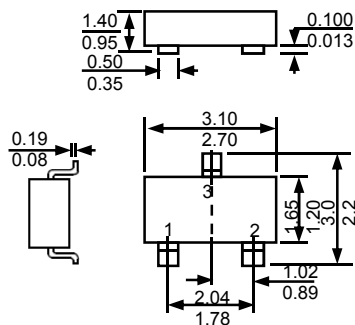
Dimensions in millimeters

MELF (Plastic)



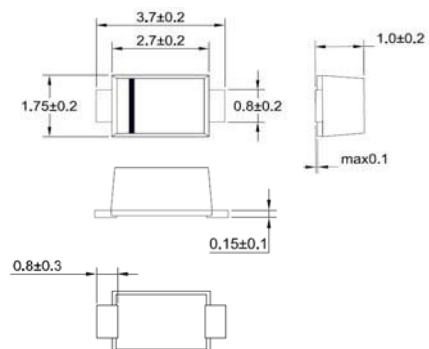
Dimensions in millimeters

SOT-23



Dimensions in millimeters

SOD-123FL

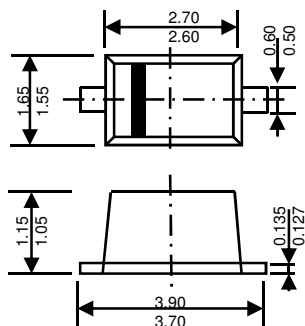


Dimensions in millimeters

Package Outline

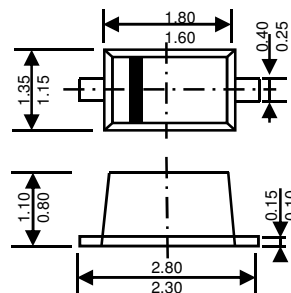
Dimension in inches and (millimeters)

SOD-123



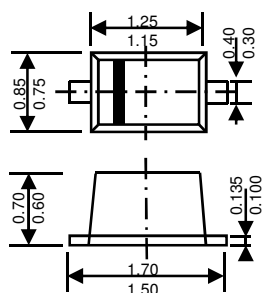
Dimensions in millimeters

SOD-323



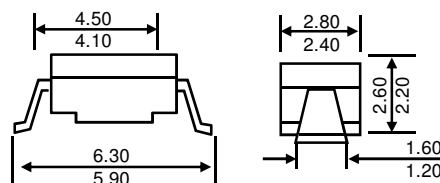
Dimensions in millimeters

SOD-523



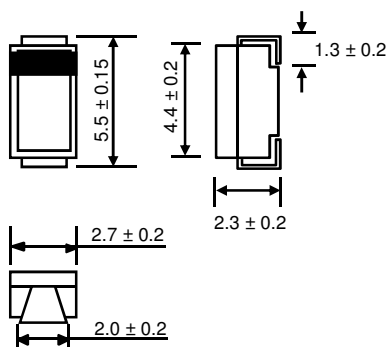
Dimensions in millimeters

DO-215AC



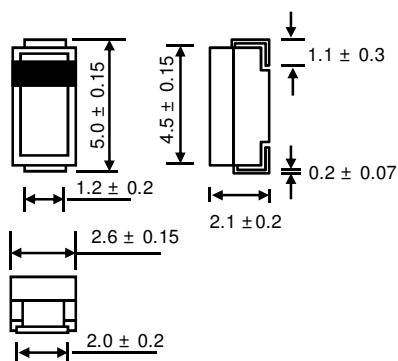
Dimensions in millimeters

SMA



Dimensions in millimeters

SMA(DO-214AC)

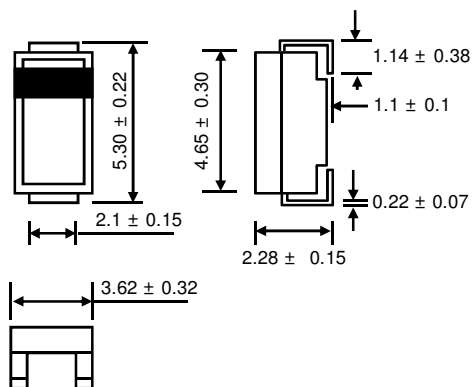


Dimensions in millimeters

Package Outline

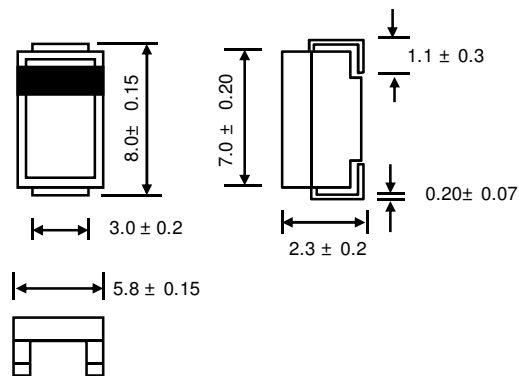
Dimension in inches and (millimeters)

SMB(DO-214AA)



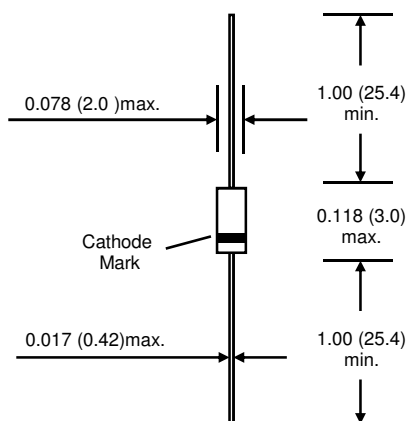
Dimensions in millimeters

SMC(DO-214AB)

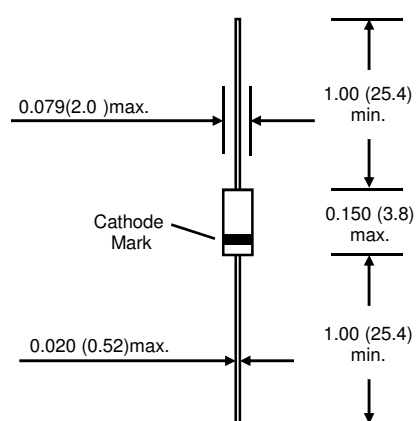


Dimensions in millimeters

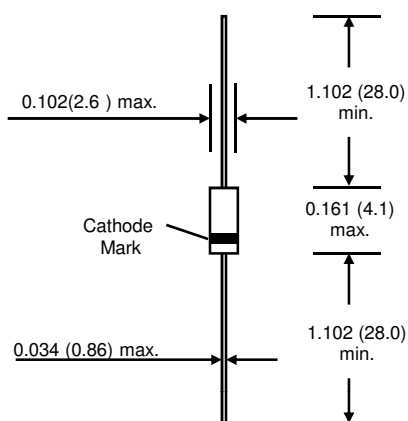
DO-34



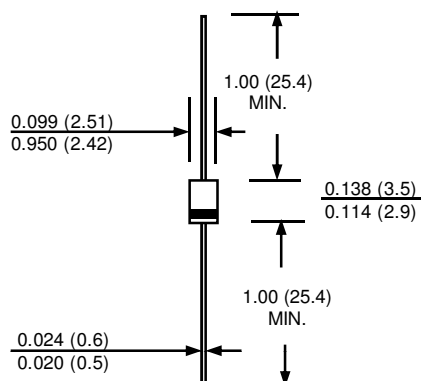
DO-35



DO-41(Glass)



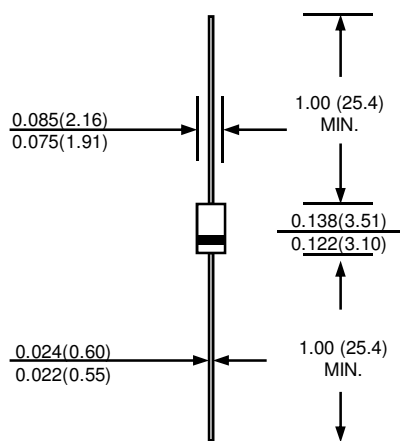
R-1



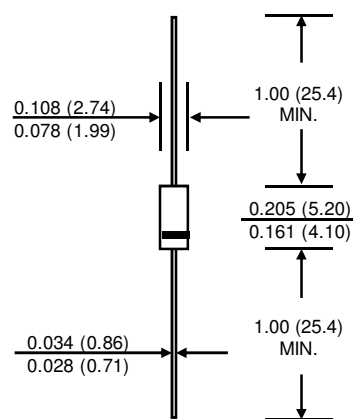
Package Outline

Dimension in inches and (millimeters)

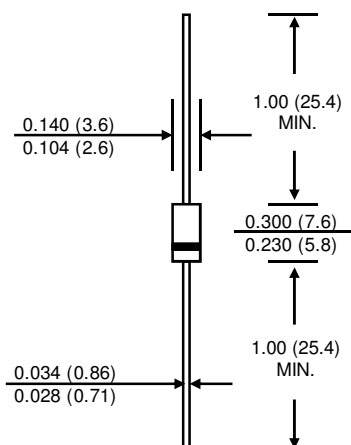
M1A



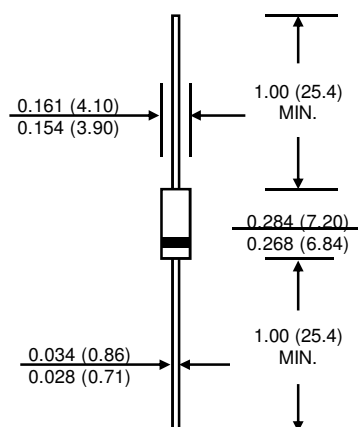
DO-41



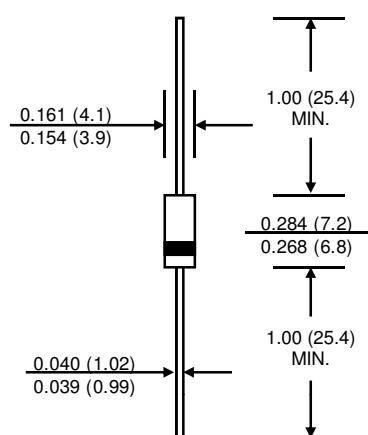
DO-15



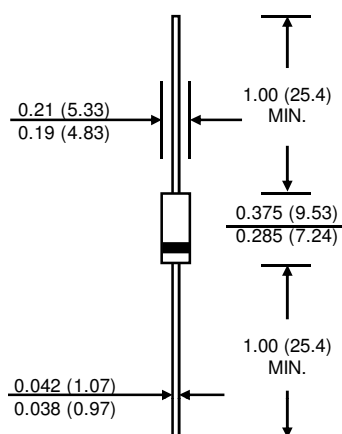
D2



D2A



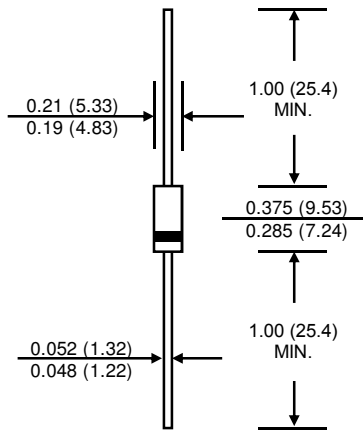
DO-201



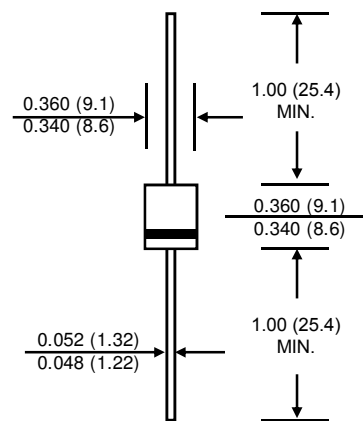
Package Outline

Dimension in inches and (millimeters)

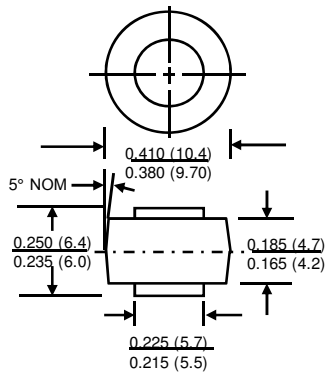
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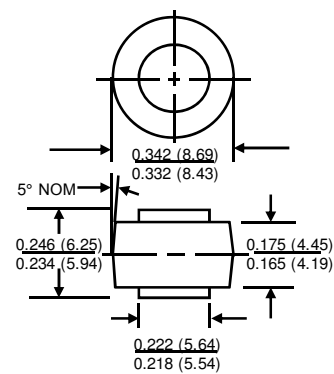
D6



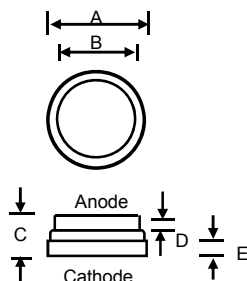
BUTTON CASE (AR)



MR

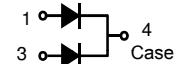
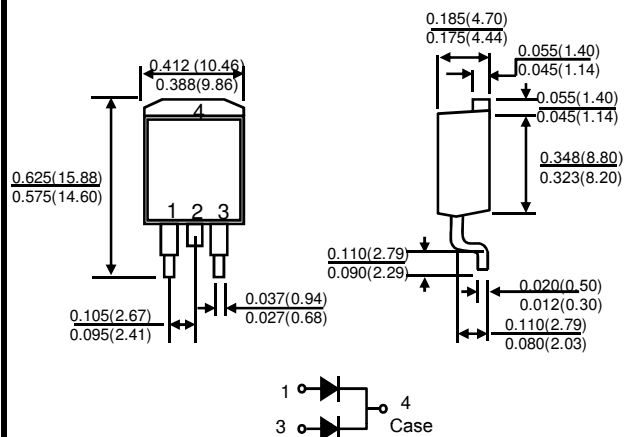


CELL



DIM.	MILLIMETER				
	3A	5A	8A	18A	25A
A	3.94	4.82	5.47	6.20	6.20
B	3.18	3.94	4.82	5.47	5.47
C	1.30	1.40	1.27	1.30	1.30
D	0.51	0.51	0.51	0.51	0.51
E	0.38	0.38	0.38	0.38	0.38

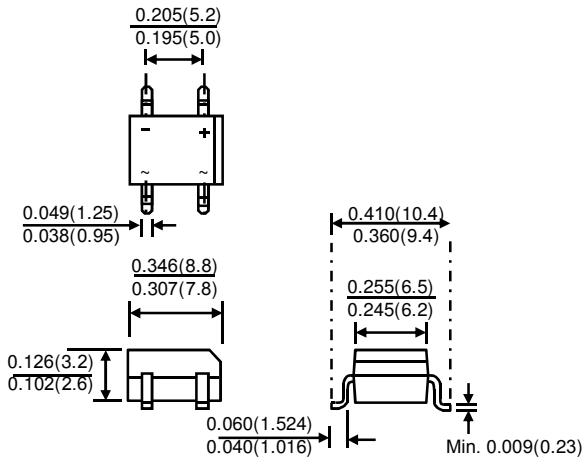
D²PAK



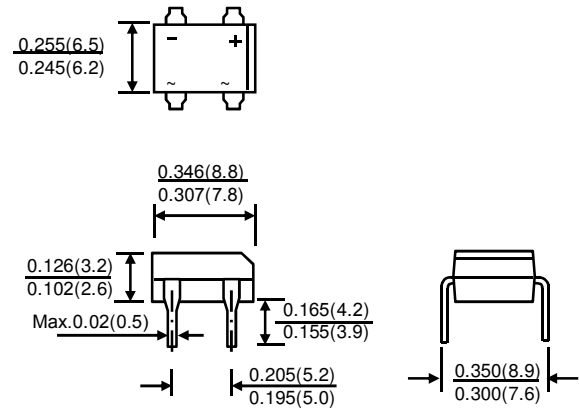
Package Outline

Dimension in inches and (millimeters)

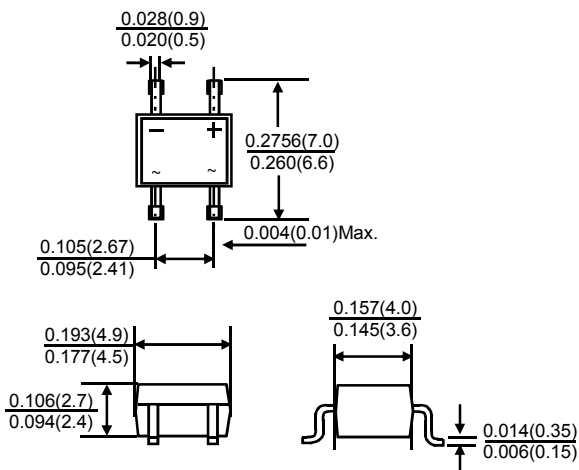
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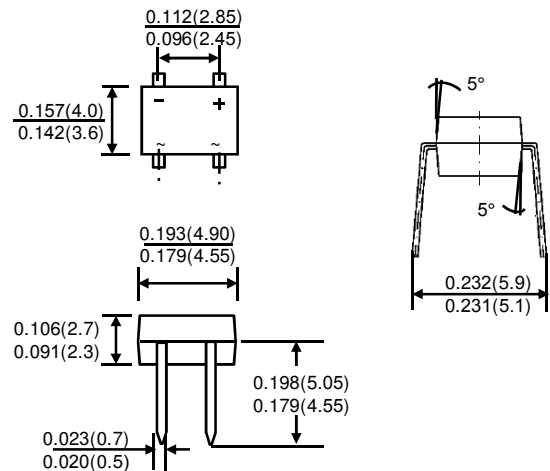
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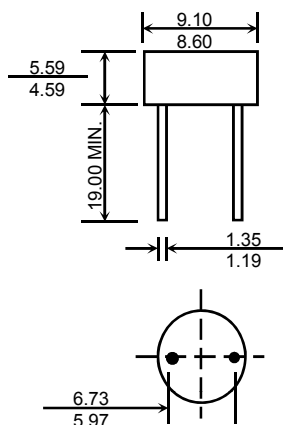
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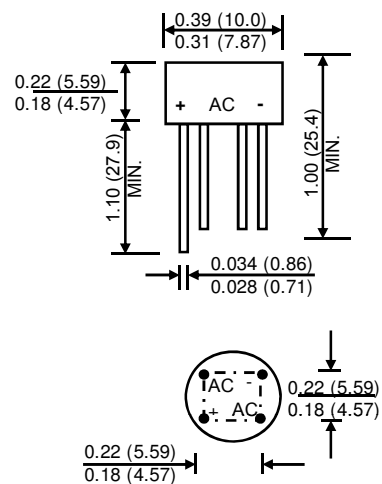
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5R



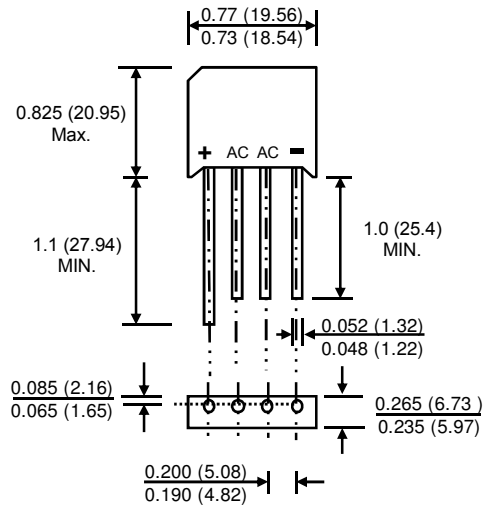
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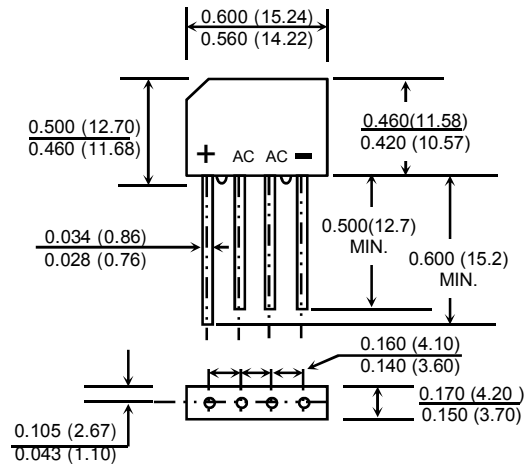
Package Outline

Dimension in inches and (millimeters)

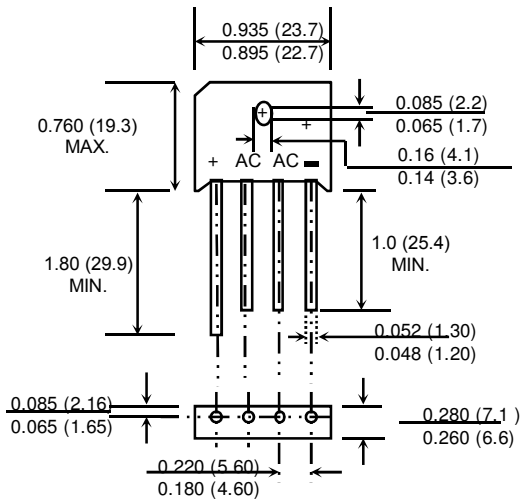
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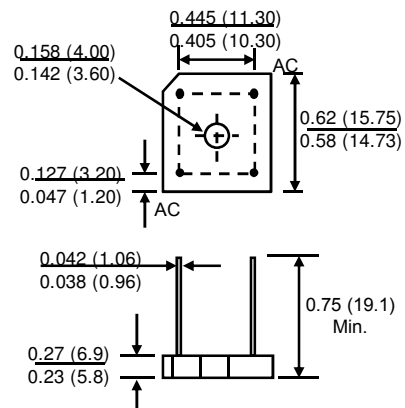
KBP



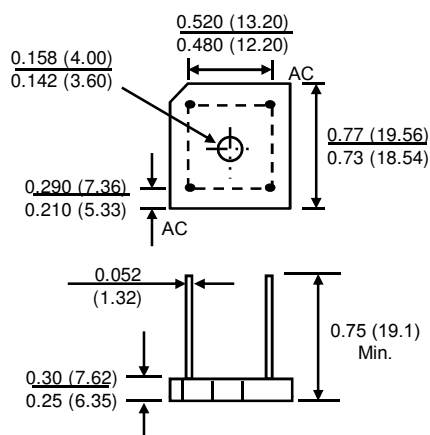
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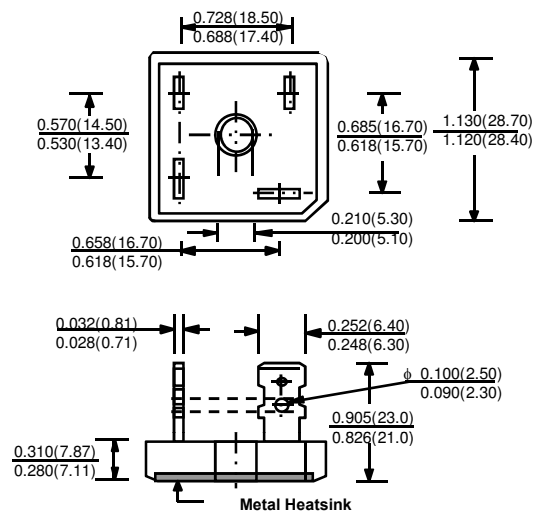
BR6



BR10

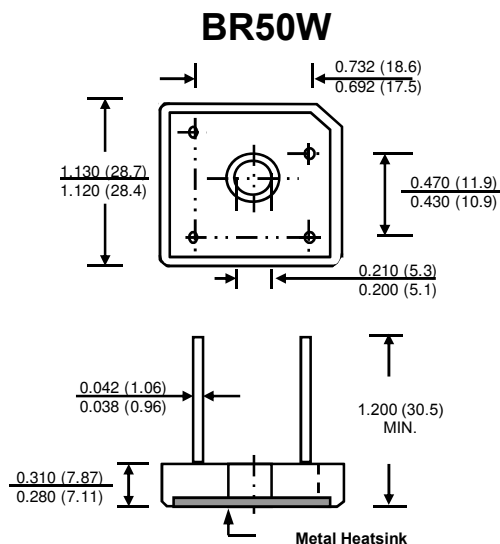
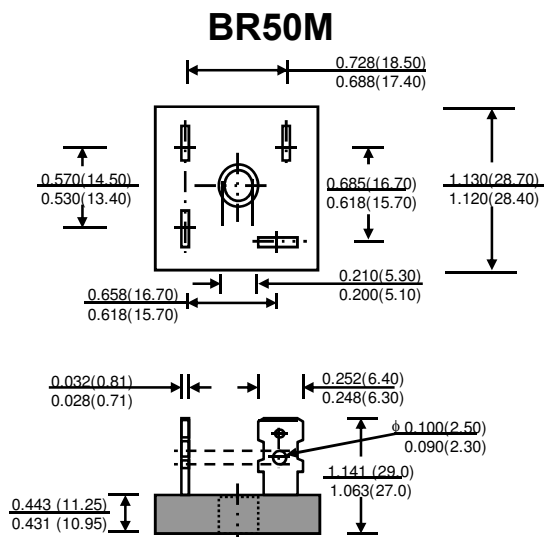


BR50

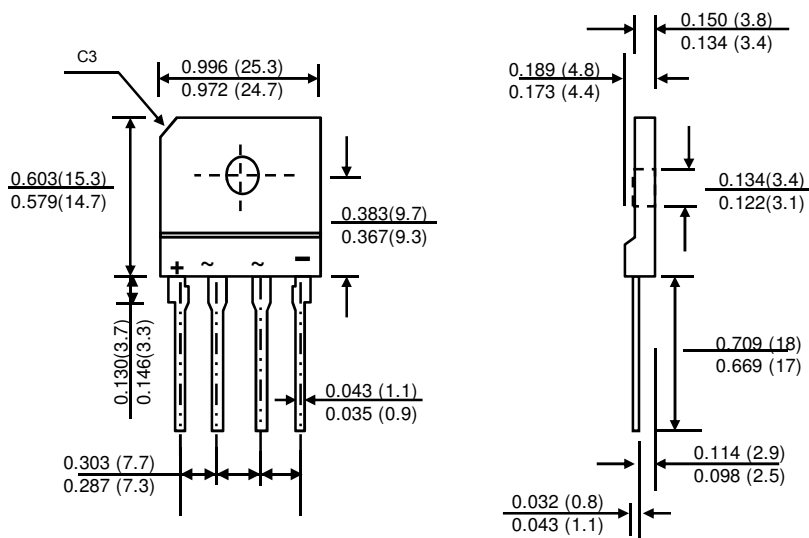


Package Outline

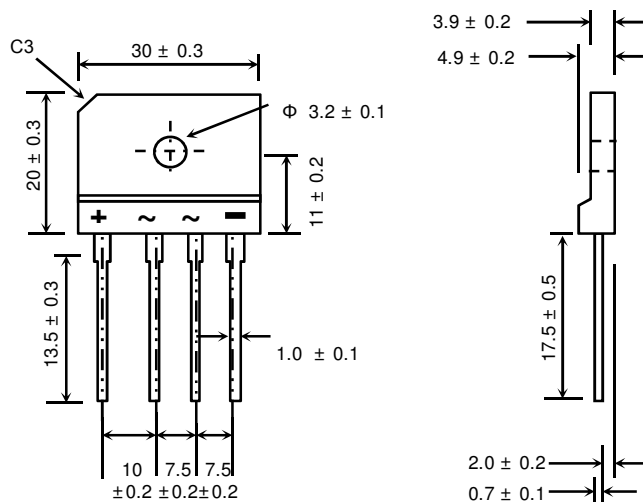
Dimension in inches and (millimeters)

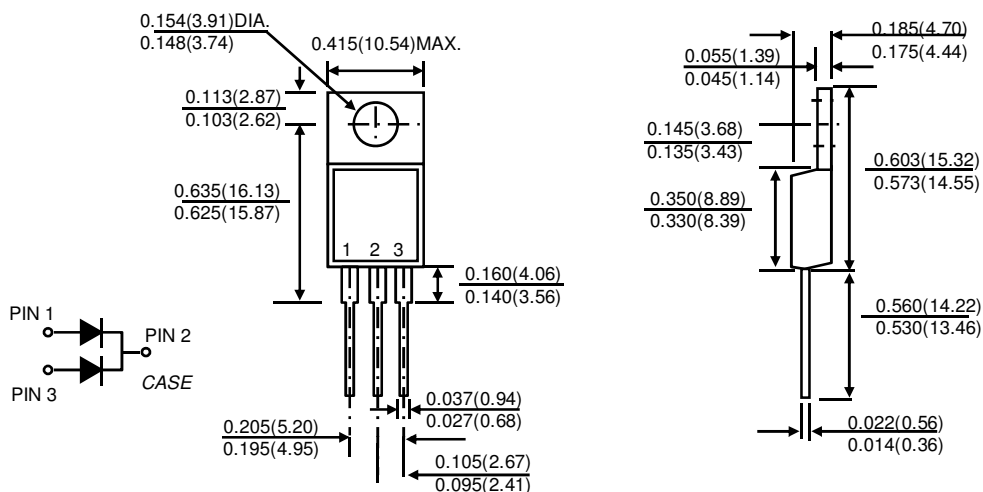
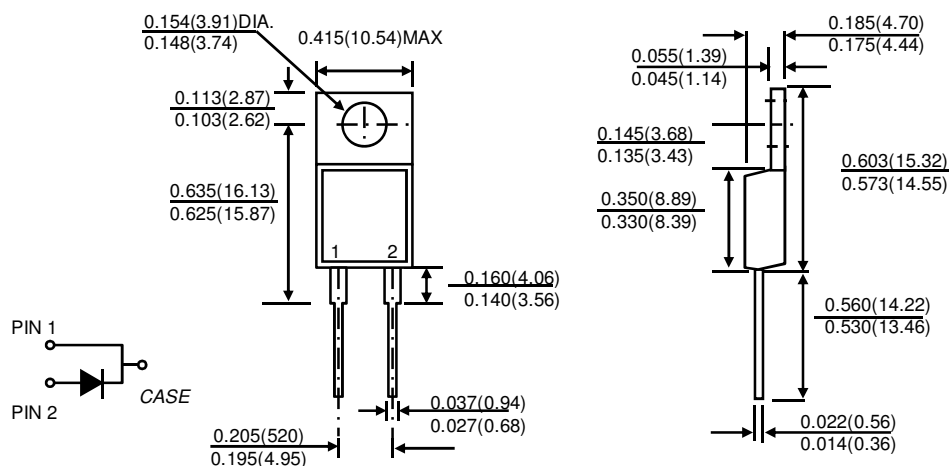
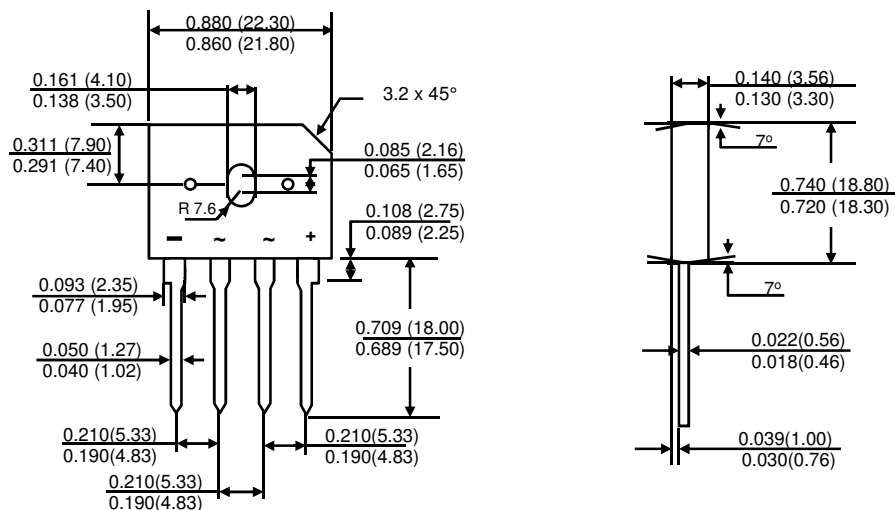


RBV4



RBV25

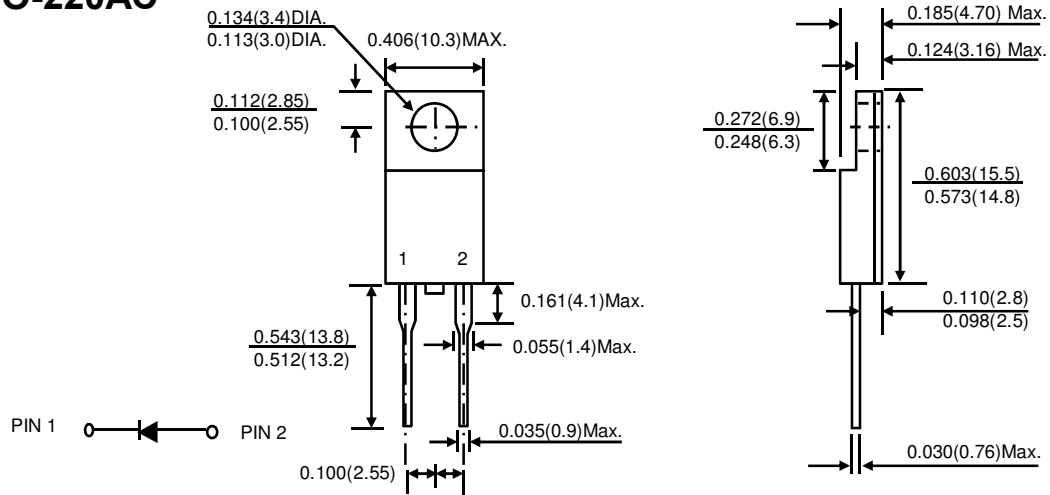




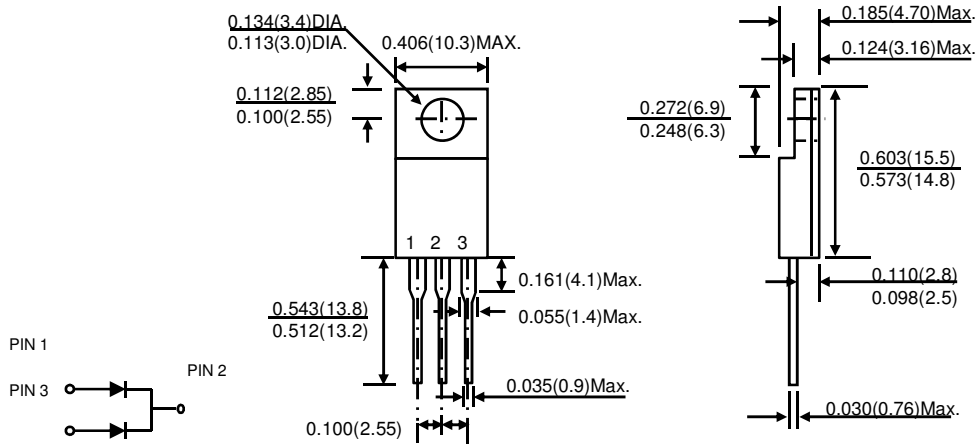
Package Outline

Dimension in inches and (millimeters)

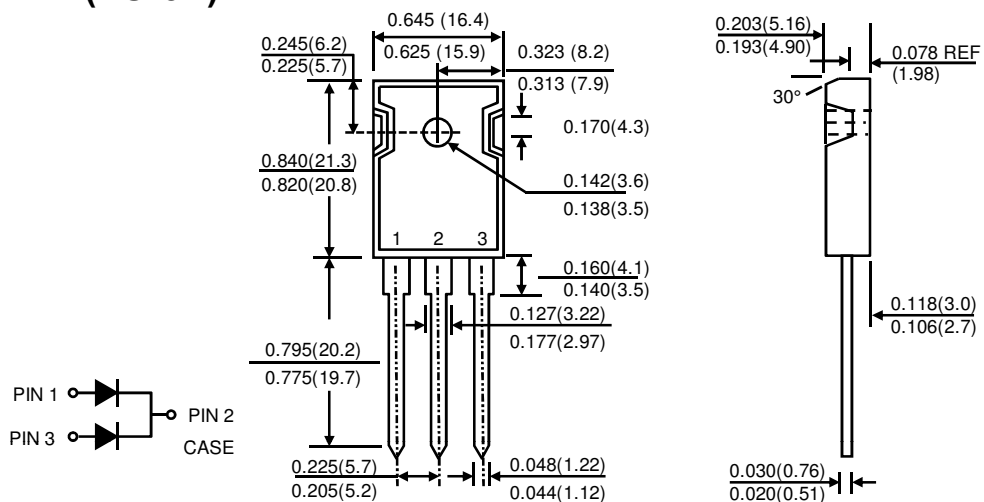
ITO-220AC



ITO-220AB



TO-247AD (TO-3P)





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Document revision history

Date	Rivision	Detail
15-Jan-2006	10	Create Catalogue 2006
10-Feb-2008	11	Create Catalogue 2008
7-Jan-2010	12	Create Catalogue 2010
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