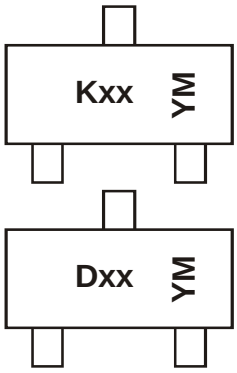
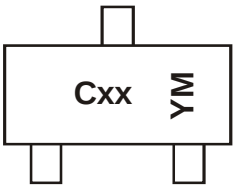
Marking Information



K/D = SAT (Shanghai Assembly / Test site)
xx = Product Type Marking Code
See Electrical Characteristics Table
YM = Date Code Marking
Y = Year (ex: F = 2018)
M = Month (ex: 9 = September)

For AZ23C5V1-7-F & AZ23C6V2-7-F only:
Assembly/Test in Shanghai or Chuzhou
M or $\overline{M}$ = Month (ex: 9 = September)



C = CAT (Chengdu Assembly / Test site)
xx = Product Type Marking Code
See Electrical Characteristics Table
YM = Date Code Marking
Y = Year (ex: F = 2018)
M = Month (ex: 9 = September)

Date Code Key

Year	2014	……	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Code	B	……	I	J	K	L	M	N	O	P	R	S

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_D	300	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{\theta JA}$	417	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Note: 5. Mounted on FR-4 PC Board with recommended pad layout which can be found on our website at http://www.diodes.com/package-outlines.html.

Electrical Characteristics (@ T_A = +25°C, unless otherwise specified.)

Type Number	Marking Code	Zener Voltage Range (Note 6)	Maximum Zener Impedance f = 1kHz		Typical Temperature Coefficient	Min. Reverse Voltage (Note 6)
		@ I_{ZT} = 5.0mA	Z_{ZT} @ I_{ZT} = 5.0mA	Z_{ZK} @ I_{ZK} = 1.0mA		@ I_R = 0.1µA
		V_Z (V)	Ω	Ω	T_C (%/°C)	V_R (V)
AZ23C2V7	D1	2.5 to 2.9	83	500	-0.065	—
AZ23C3V0	D2	2.8 to 3.2	95	500	-0.060	—
AZ23C3V3	D3	3.1 to 3.5	95	500	-0.055	—
AZ23C3V6	D4	3.4 to 3.8	95	500	-0.055	—
AZ23C3V9	D5	3.7 to 4.1	95	500	-0.050	—
AZ23C4V3	D6	4.0 to 4.6	95	500	-0.035	—
AZ23C4V7	D7	4.4 to 5.0	78	500	-0.015	—
AZ23C5V1	D8	4.8 to 5.4	60	480	+0.005	0.8
AZ23C5V6	D9	5.2 to 6.0	40	400	+0.020	1.0
AZ23C6V2	DA	5.8 to 6.6	10	200	+0.030	2.0
AZ23C6V8	DB	6.4 to 7.2	8.0	150	+0.045	3.0
AZ23C7V5	DC	7.0 to 7.9	7.0	50	+0.050	5.0
AZ23C8V2	DD	7.7 to 8.7	7.0	50	+0.055	6.0
AZ23C9V1	DE	8.5 to 9.6	10	50	+0.065	7.0
AZ23C10	DF	9.4 to 10.6	15	70	+0.065	7.5
AZ23C11	DG	10.4 to 11.6	20	70	+0.070	8.5
AZ23C12	DH	11.4 to 12.7	20	90	+0.075	9.0
AZ23C13	DI	12.4 to 14.1	25	110	+0.080	10.0
AZ23C15	DJ	13.8 to 15.6	30	110	+0.080	11.0
AZ23C16	DK	15.3 to 17.1	40	170	+0.090	12.0
AZ23C18	DL	16.8 to 19.1	50	170	+0.090	14.0
AZ23C20	DM	18.8 to 21.2	50	220	+0.090	15.0
AZ23C22	DN	20.8 to 23.3	55	220	+0.090	17.0
AZ23C24	DO	22.8 to 25.6	80	220	+0.090	18.0
AZ23C27	DP	25.1 to 28.9	80	250	+0.090	20.0
AZ23C30	DQ	28 to 32	80	250	+0.090	22.5
AZ23C33	DR	31 to 35	80	250	+0.090	25.0
AZ23C36	DS	34 to 38	90	250	+0.090	27.0
AZ23C39	DT	37 to 41	90	300	+0.110	29.0
AZ23C43	30	40 to 46	100	700	+0.110	32.0
AZ23C47	31	44 to 50	100	750	+0.110	35.0
AZ23C51	32	48 to 54	100	750	+0.110	38.0

Note: 6. Short duration pulse test used to minimize self-heating effect.

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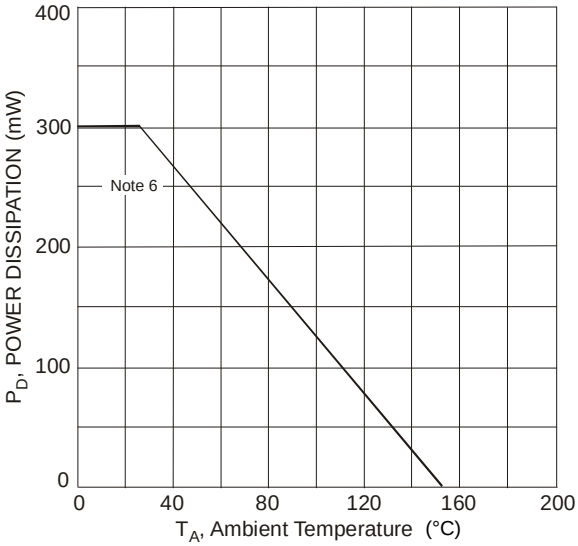

Fig. 1 Power Derating Curve

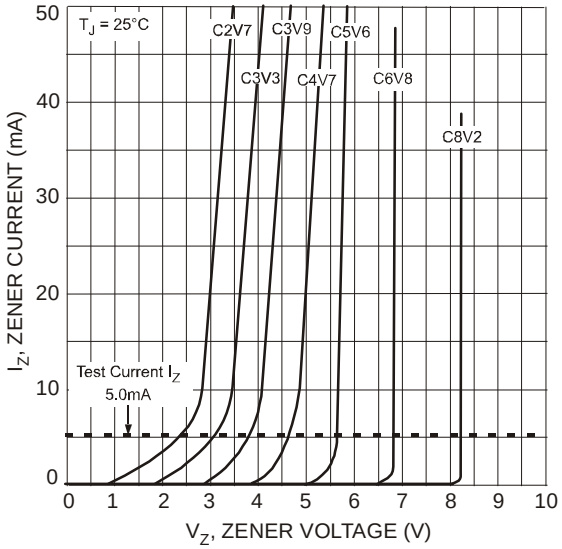

Fig. 2 Typical Zener Breakdown Characteristics

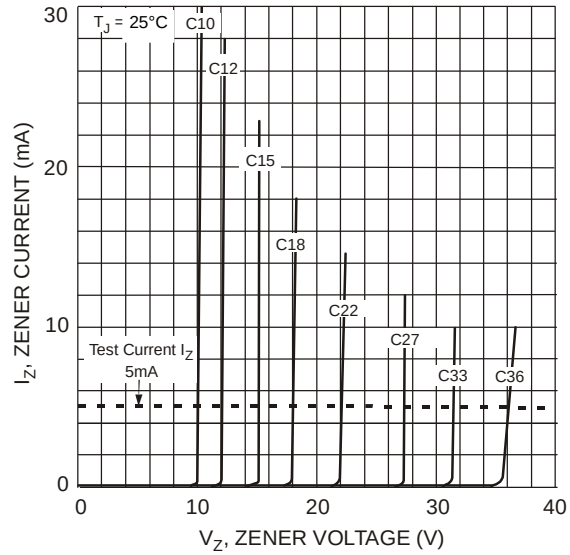

Fig. 3 Typical Zener Breakdown Characteristics

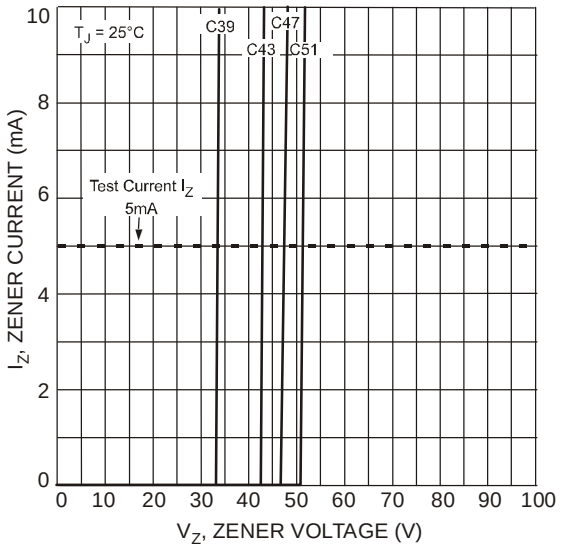

Fig. 4 Typical Zener Breakdown Characteristics

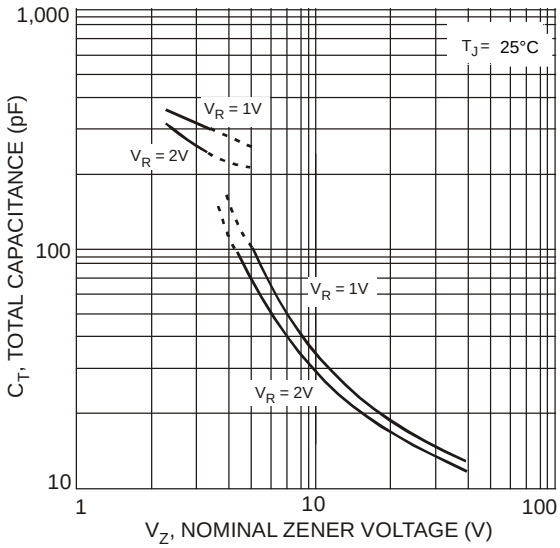

Fig. 5 Typical Total Capacitance vs. Nominal Zener Voltage

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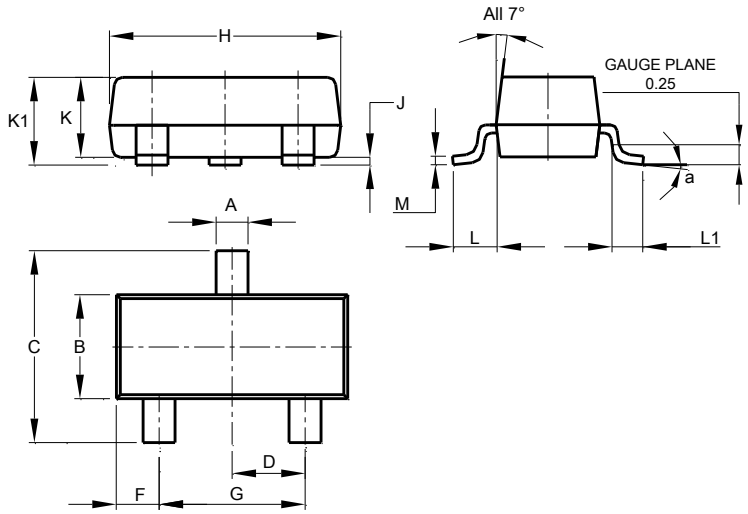
Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

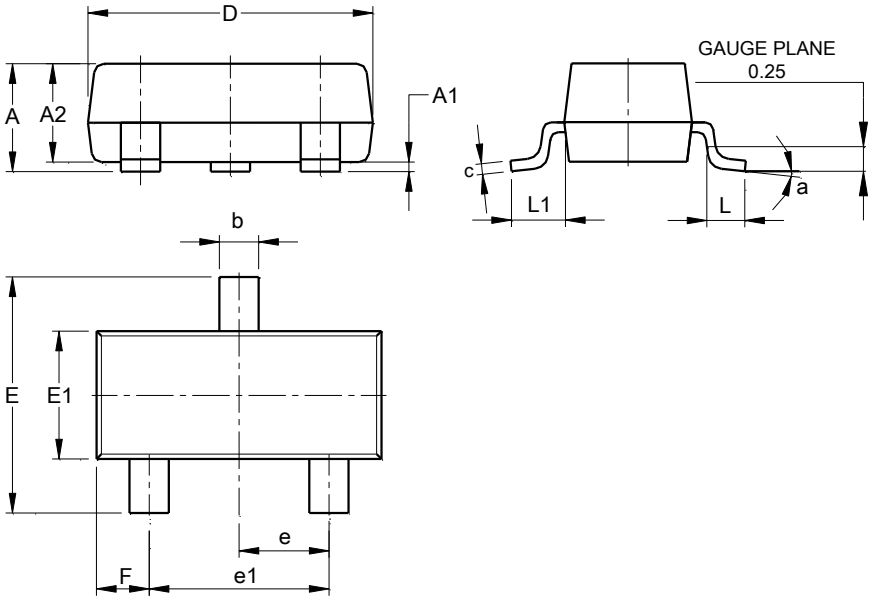
SOT23



SOT23			
Dim	**Min**	**Max**	**Typ**
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.890	1.00	0.975
K1	0.903	1.10	1.025
L	0.45	0.61	0.55
L1	0.25	0.55	0.40
M	0.085	0.150	0.110
a	0°	8°	--
All Dimensions in mm			

For AZ23C5V1-7-F & AZ23C6V2-7-F only:

SOT23 (Standard)



SOT23 (Standard)			
Dim	**Min**	**Max**	**Typ**
A	0.90	1.15	1.025
A1	0.00	0.10	0.05
A2	0.85	1.10	0.975
b	0.30	0.51	0.40
c	0.080	0.202	0.11
D	2.80	3.00	2.90
E	2.25	2.55	2.40
E1	1.20	1.40	1.30
e	0.89	1.03	0.915
e1	1.78	2.05	1.83
F	0.40	0.60	0.535
L1	0.45	0.61	0.55
L	0.25	0.55	0.40
a	0°	8°	--
All Dimensions in mm			

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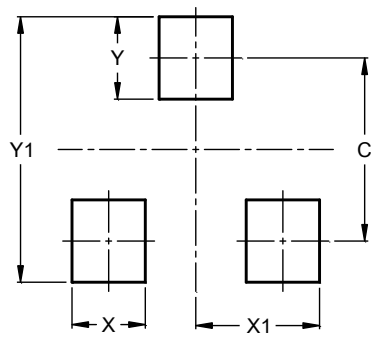
Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOT23



Dimensions	Value (in mm)
C	2.0
X	0.8
X1	1.35
Y	0.9
Y1	2.9

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