Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic		Symbol	Value	Unit
Forward Voltage	@ I_F = 10mA @ I_F = 100mA	V_F	0.9 1.1	V
Continuous Forward Current		I_F	200	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_D	350	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Note: 5. Device mounted on FR-4 PCB with minimum recommended pad layout, as shown in Diodes Incorporated's Suggested Pad Layout document, which can be found on our website at http://www.diodes.com.

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

Type Number	Marking Codes	Zener Voltage Range (Note 6)				Maximum Zener Impedance (Note 7)			Temperature Coefficient	Total Capacitance	Maximum Reverse Current (Note 6)	
		V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	TC @ I_{ZT}	C_T @ f = 1MHz, V_R = 0V	I_R	@ V_R
		Nom (V)	Min (V)	Max (V)	mA	Ω		mA	Typical (mV/°C)	Max (pF)	µA	V
BZT585B2V4T	3C	2.4	2.35	2.45	5	100	400	1	-1.3	450	50	1
BZT585B2V7T	3E	2.7	2.65	2.75	5	100	450	1	-1.4	440	20	1
BZT585B3V3T	3H	3.3	3.23	3.37	5	95	500	1	-1.8	410	5	1
BZT585B3V6T	3J	3.6	3.53	3.67	5	90	500	1	-1.9	390	5	1
BZT585B3V9T	3K	3.9	3.82	3.98	5	90	500	1	-1.9	370	3	1
BZT585B4V3T	3L	4.3	4.21	4.39	5	90	600	1	-1.7	350	3	1
BZT585B4V7T	3M	4.7	4.61	4.79	5	80	500	1	-1.2	325	3	2
BZT585B5V1T	3N	5.1	5.00	5.20	5	60	480	1	-0.5	300	2	2
BZT585B5V6T	3P	5.6	5.49	5.71	5	40	400	1	1.0	275	1	2
BZT585B6V2T	3S	6.2	6.08	6.32	5	10	150	1	2.2	250	3	4
BZT585B6V8T	3T	6.8	6.66	6.94	5	15	80	1	3.0	215	2	4
BZT585B7V5T	3U	7.5	7.35	7.65	5	10	80	1	3.8	170	1	5
BZT585B8V2T	3V	8.2	8.04	8.36	5	10	80	1	4.7	150	0.7	5
BZT585B9V1T	3X	9.1	8.92	9.28	5	10	100	1	5.8	120	0.5	6
BZT585B10T	3Y	10	9.80	10.20	5	10	150	1	7.0	110	0.2	7
BZT585B11T	3Z	11	10.78	11.22	5	10	150	1	8.2	110	0.1	8
BZT585B12T	4A	12	11.76	12.24	5	10	150	1	9.5	105	0.1	8
BZT585B13T	4B	13	12.74	13.26	5	10	170	1	10.7	105	0.1	8
BZT585B15T	4D	15	14.70	15.30	5	15	200	1	13.2	100	0.05	10.5
BZT585B16T	4E	16	15.68	16.32	5	40	200	1	14.4	90	0.05	11.2
BZT585B18T	4F	18	17.64	18.36	5	45	225	1	16.9	80	0.05	12.6
BZT585B20T	4G	20	19.60	20.40	5	55	225	1	19.4	70	0.05	14.0
BZT585B22T	4H	22	21.56	22.44	5	55	250	1	21.9	60	0.05	15.4
BZT585B24T	4J	24	23.52	24.48	5	70	250	1	24.4	55	0.05	16.8
BZT585B27T	4K	27	26.46	27.54	2	80	300	0.5	25.4	50	0.05	18.9
BZT585B30T	4M	30	29.40	30.60	2	80	300	0.5	31.1	50	0.05	21.0
BZT585B33T	4N	33	32.34	33.66	2	80	325	0.5	36.7	45	0.05	23.1
BZT585B36T	4P	36	35.28	36.72	2	90	350	0.5	42.4	45	0.05	25.2
BZT585B39T	4R	39	38.22	39.78	2	130	350	0.5	48.1	45	0.05	27.3
BZT585B43T	4S	43	42.14	43.86	2	150	375	0.5	55.7	40	0.05	30.1

Notes: 6. Short duration pulse test used to minimize self-heating effect.
7. f = 1kHz.

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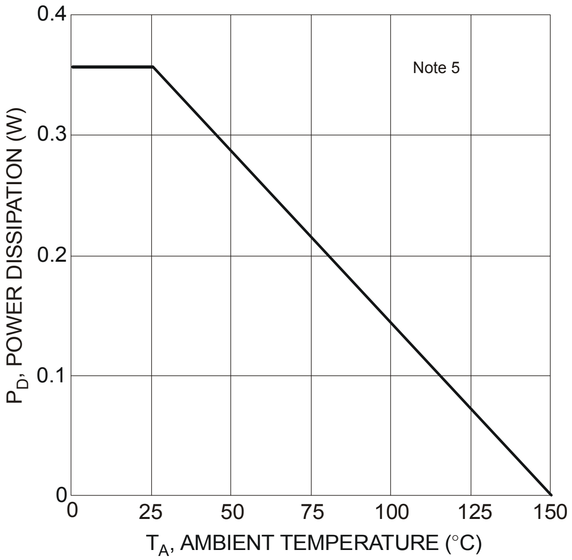


Figure 1 Power Derating Curve

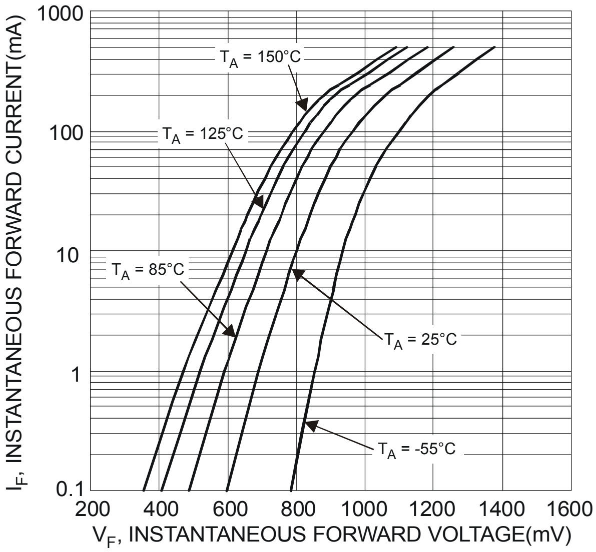


Figure 2 Typical Forward Characteristics

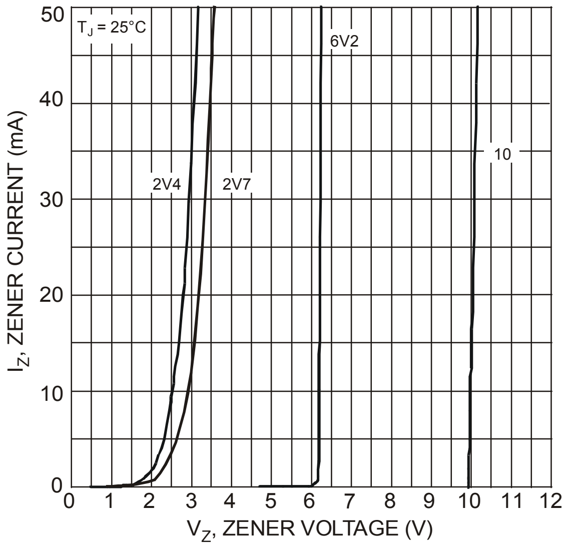


Figure 3 Typical Zener Breakdown Characteristics

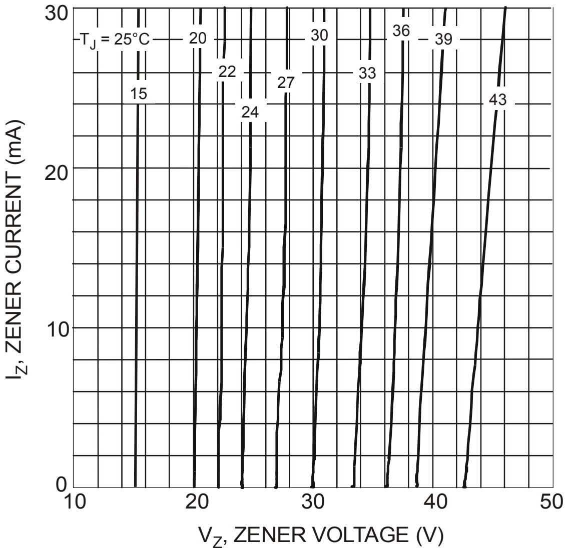
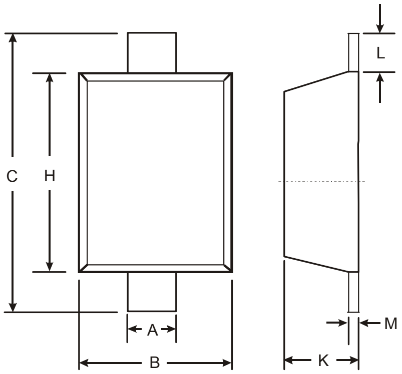


Figure 4 Typical Zener Breakdown Characteristics

Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SOD523		
Dim	**Min**	**Max**
A	0.25	0.35
B	0.70	0.90
C	1.50	1.70
H	1.10	1.30
K	0.55	0.65
L	0.10	0.30
M	0.10	0.12
All Dimensions in mm		

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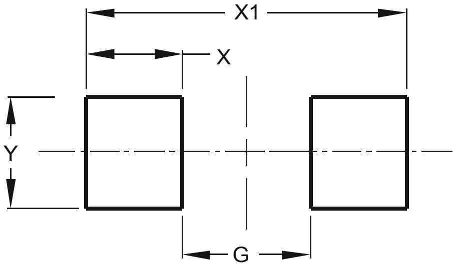
Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for latest version.



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70

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