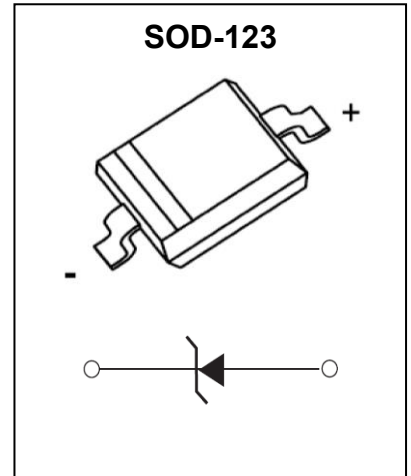




BZT52C Series ZENER DIODE

Feature

- Planar Die Construction
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version



ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	0.35	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	340	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

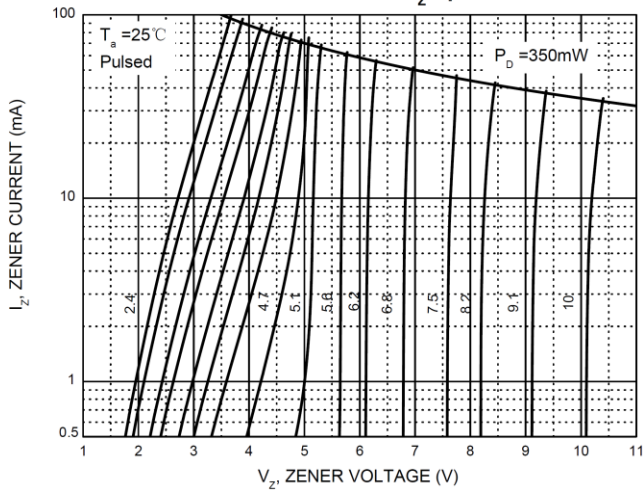
Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current	
		Vz@IzT			IzT	ZzT@IzT	Zzk@Izk	Izk	IR	VR
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V
BZT52C2V4	HWX/WX	2.4	2.28	2.52	5	100	600	1.0	50	1.0
BZT52C2V7	HW1/W1	2.7	2.57	2.84	5	100	600	1.0	20	1.0
BZT52C3V0	HW2/W2	3.0	2.85	3.15	5	95	600	1.0	10	1.0
BZT52C3V3	HW3/W3	3.3	3.14	3.47	5	95	600	1.0	5	1.0
BZT52C3V6	HW4/W4	3.6	3.42	3.78	5	90	600	1.0	5	1.0
BZT52C3V9	HW5/W5	3.9	3.71	4.10	5	90	600	1.0	3	1.0
BZT52C4V3	HW6/W6	4.3	4.09	4.52	5	90	600	1.0	3	1.0
BZT52C4V7	HW7/W7	4.7	4.47	4.94	5	80	500	1.0	3	2.0
BZT52C5V1	HW8/W8	5.1	4.85	5.36	5	60	480	1.0	2	2.0
BZT52C5V6	HW9/W9	5.6	5.32	5.88	5	40	400	1.0	1	2.0
BZT52C6V2	HWA/WA	6.2	5.89	6.51	5	10	150	1.0	3	4.0
BZT52C6V8	HWB/WB	6.8	6.46	7.14	5	15	80	1.0	2	4.0
BZT52C7V5	HWC/WC	7.5	7.13	7.88	5	15	80	1.0	1	5.0
BZT52C8V2	HWD/WD	8.2	7.79	8.61	5	15	80	1.0	0.7	5.0
BZT52C9V1	HWE/WE	9.1	8.65	9.56	5	15	100	1.0	0.5	6.0
BZT52C10	HWF/WF	10	9.5	10.50	5	20	150	1.0	0.2	7.0
BZT52C11	HWG/WG	11	10.45	11.55	5	20	150	1.0	0.1	8.0
BZT52C12	HWH/WH	12	11.40	12.60	5	25	150	1.0	0.1	8.0
BZT52C13	HWI/WI	13	12.35	13.65	5	30	170	1.0	0.1	8.0
BZT52C15	HWJ/WJ	15	14.25	15.75	5	30	200	1.0	0.1	10.5
BZT52C16	HWK/WK	16	15.20	16.80	5	40	200	1.0	0.1	11.2
BZT52C18	HWL/WL	18	17.10	18.90	5	45	225	1.0	0.1	12.6
BZT52C20	HWM/WM	20	19.00	21.00	5	55	225	1.0	0.1	14.0
BZT52C22	HWN/WN	22	20.90	23.10	5	55	250	1.0	0.1	15.4
BZT52C24	HWO/WO	24	22.80	25.20	5	70	250	1.0	0.1	16.8
BZT52C27	HWP/WP	27	25.65	28.35	2	80	300	0.5	0.1	18.9
BZT52C30	HWQ/WQ	30	28.50	31.50	2	80	300	0.5	0.1	21.0
BZT52C33	HWR/WR	33	31.35	34.65	2	80	325	0.5	0.1	23.1
BZT52C36	HWS/WS	36	34.20	37.80	2	90	350	0.5	0.1	25.2
BZT52C39	HWT/WT	39	37.05	40.95	2	130	350	0.5	0.1	27.3

Notes:

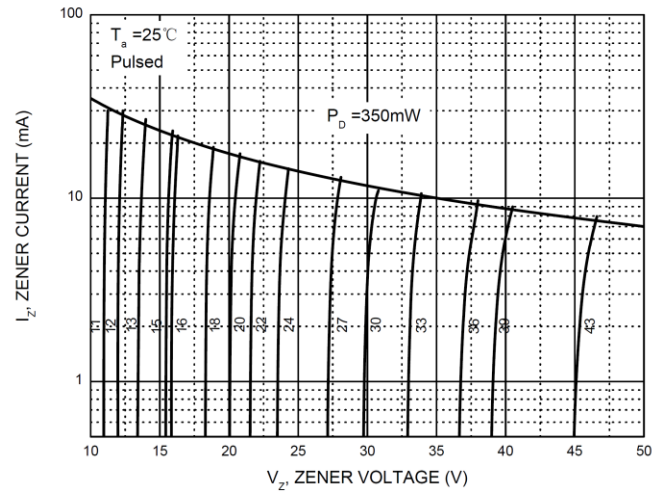
1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.

Typical Characteristics

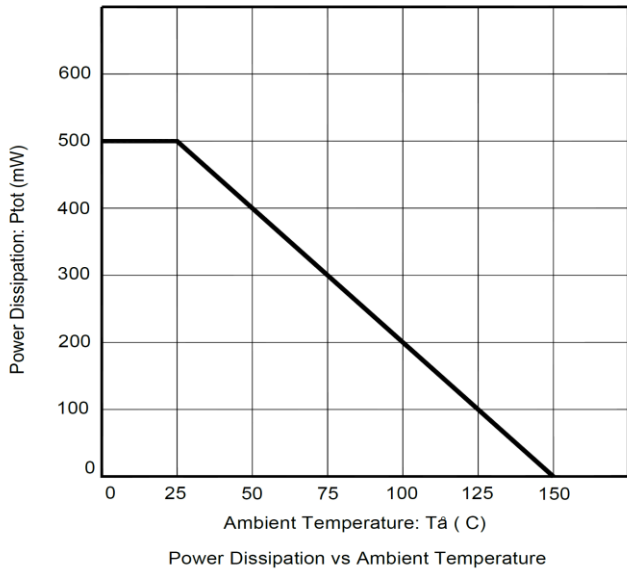
Zener Characteristics (V_z Up to 10 V)



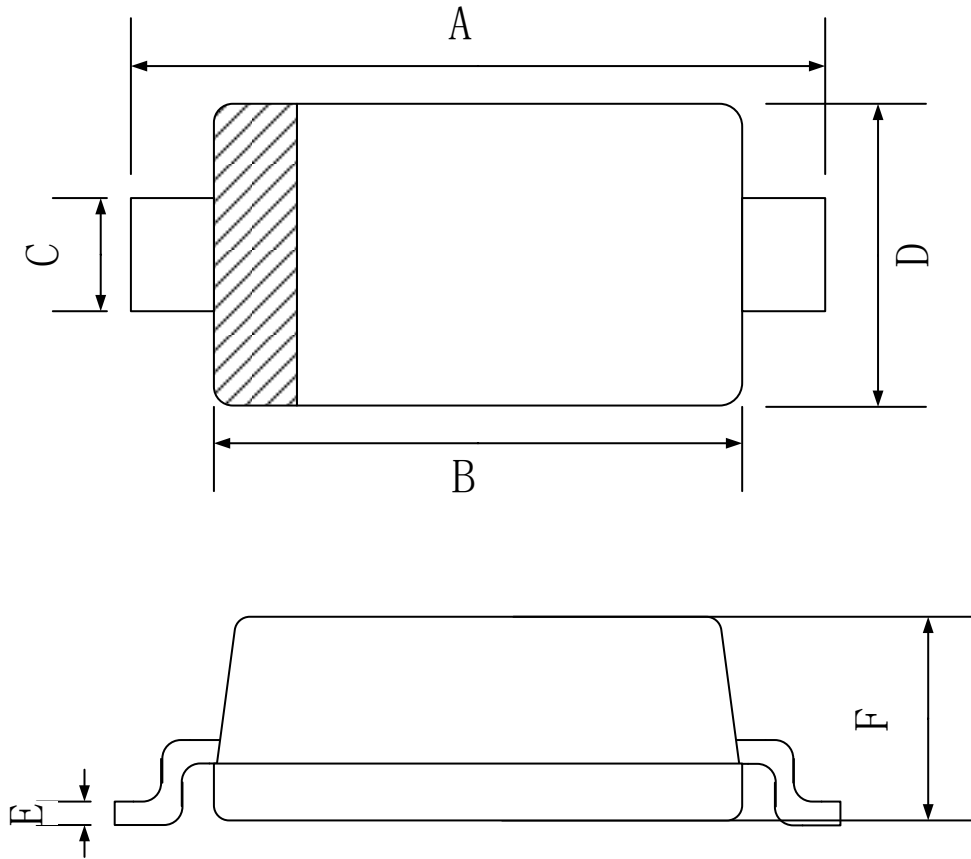
Zener Characteristics (11 V to 43 V)



Power Derating Curve



SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	3.55	3.70	3.85
B	2.55	2.65	2.75
C	0.45	0.55	0.65
D	1.55	1.60	1.65
E	0.100	0.115	0.135
F	0.90	1.05	1.20