BZT52C2V4S-BZT52C43S
ZENER DIODE

Features

- Planar Die Construction
- 200mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version

SOD-323 top view

Schematic diagram

Pb-Free RoHS Halogen-Free

Maximum Ratings(T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_F	Forward Voltage (Note 2) @ I_F = 10mA	0.9	V
P_D	Power Dissipation(Note 1)	200	mW
$R_{\Theta JA}$	Thermal Resistance, Junction to Ambient Air	625	°C/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

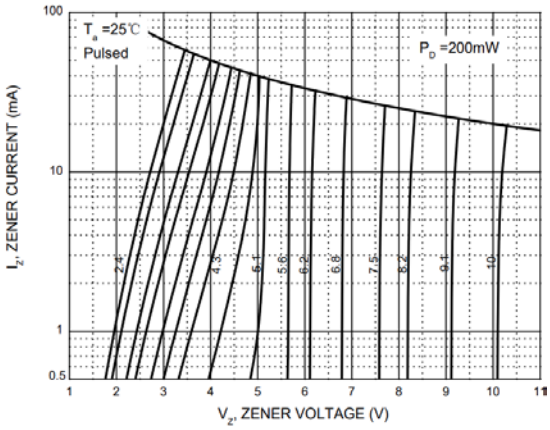
Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm^2.
2. Short duration test pulse used to minimize self-heating effect
3. f=1kH$_Z$

T_a=25℃ unless otherwise specified

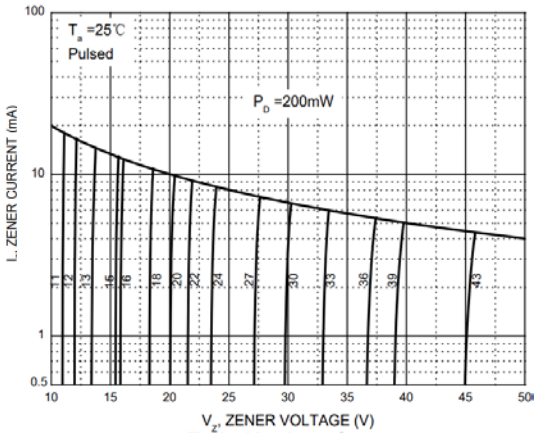
Typt Number	Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance			Maximum Reverse Leakage Current		Typical Temperature Coefficent @I_{ZTC} mV/°C		Test Current I_{ZTC}
		V_Z@L_{ZT}			I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R	V_R			
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	uA	V	Min	Max	mA
BZT52C2V4S	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5.0
BZT52C2V7S	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5.0
BZT52C3V0S	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5.0
BZT52C3V3S	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5.0
BZT52C3V6S	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5.0
BZT52C3V9S	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5.0
BZT52C4V3S	W6	4.3	4.0	4.6	5	90	600	1.0	3.0	1.0	-3.5	0	5.0
BZT52C4V7S	W7	4.7	4.4	5.0	5	80	500	1.0	3.0	2.0	-3.5	0.2	5.0
BZT52C5V1S	W8	5.1	4.8	5.4	5	60	480	1.0	2.0	2.0	-2.7	1.2	5.0
BZT52C5V6S	W9	5.6	5.2	6.0	5	40	400	1.0	1.0	2.0	-2.0	2.5	5.0
BZT52C6V2S	WA	6.2	5.8	6.6	5	10	150	1.0	3.0	4.0	0.4	3.7	5.0
BZT52C6V8S	WB	6.8	6.4	7.2	5	15	80	1.0	2.0	4.0	1.2	4.5	5.0
BZT52C7V5S	WC	7.5	7.0	7.9	5	15	80	1.0	1.0	5.0	2.5	5.3	5.0
BZT52C8V2S	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5.0
BZT52C9V1S	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5.0
BZT52C10S	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5.0
BZT52C11S	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5.0
BZT52C12S	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5.0
BZT52C13S	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5.0
BZT52C15S	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5.0
BZT52C16S	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5.0
BZT52C18S	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5.0
BZT52C20S	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5.0
BZT52C22S	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5.0
BZT52C24S	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5.0
BZT52C27S	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2.0
BZT52C30S	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2.0
BZT52C33S	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2.0
BZT52C36S	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2.0
BZT52C39S	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2.0
BZT52C43S	WU	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0	5.0

Typical Characteristics

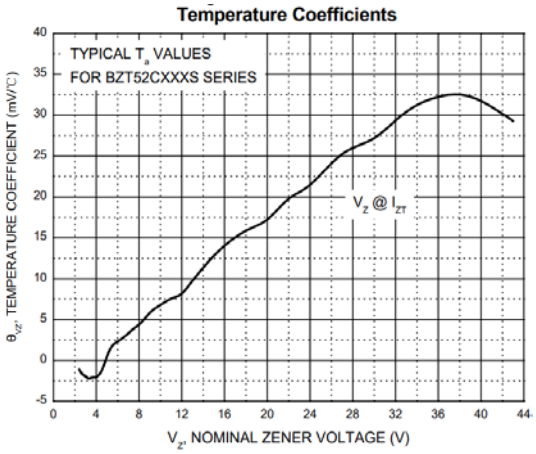
Zener Characteristics (V_Z Up to 10 V)



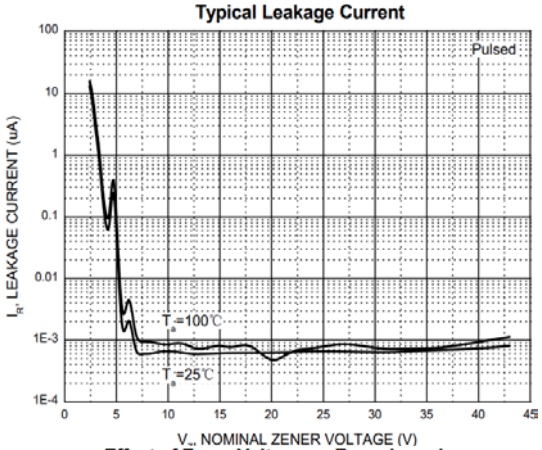
Zener Characteristics (11 V to 43 V)



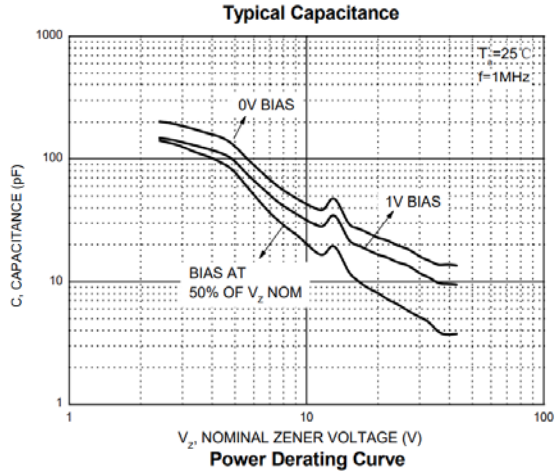
Temperature Coefficients



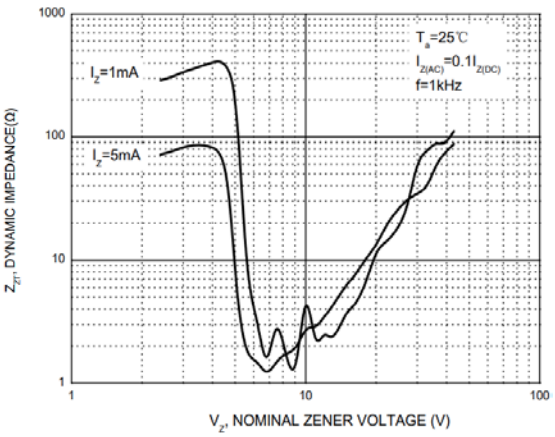
Typical Leakage Current



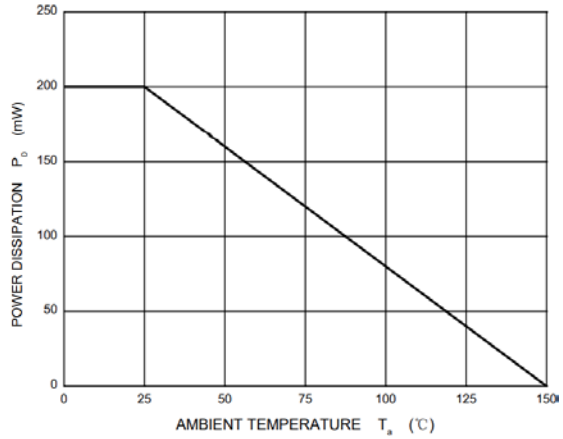
Typical Capacitance



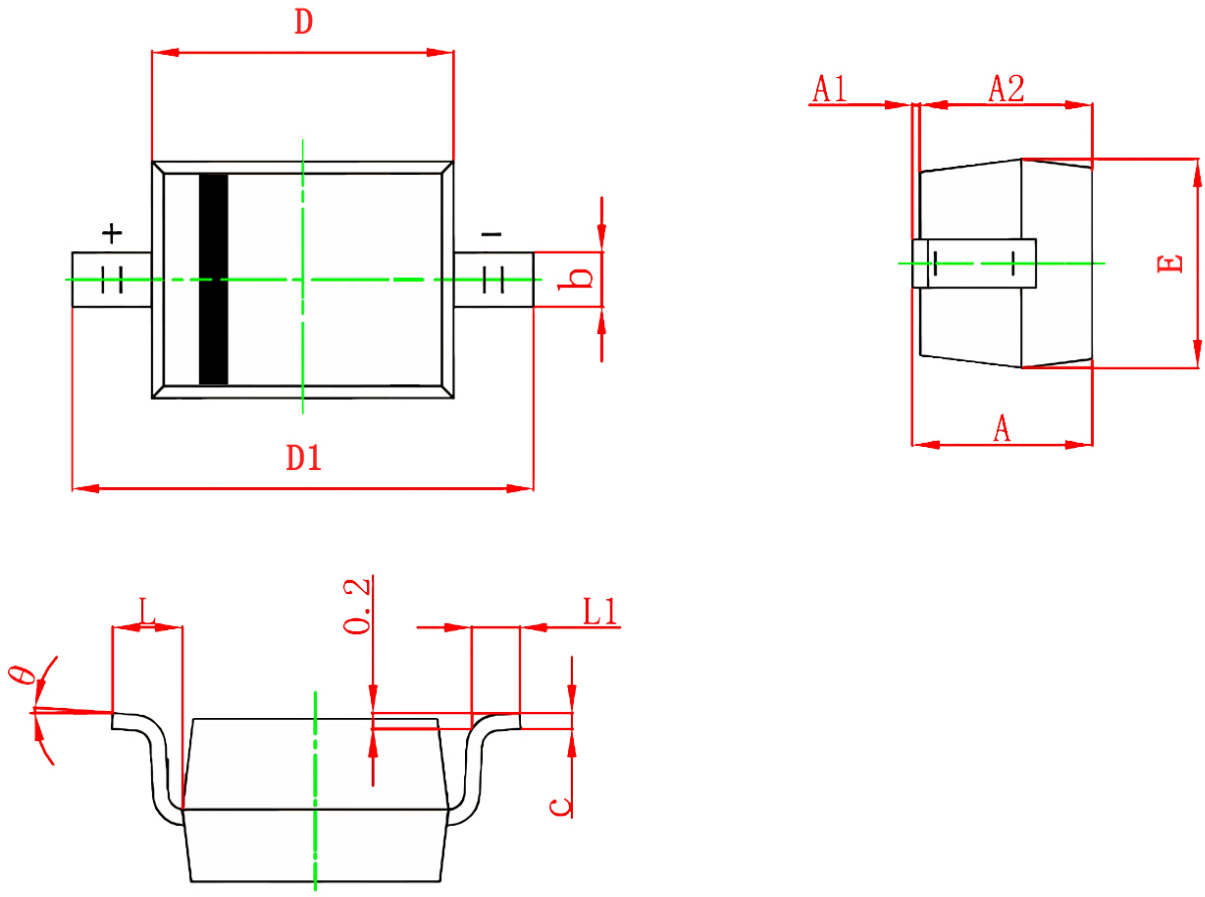
Effect of Zener Voltage on Zener Impedance



Power Derating Curve



SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.100	-	0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°