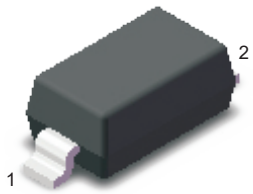
BZT52B2V4~BZT52B43
Silicon Planar Zener Diodes

Features

- Total Power Dissipation: 350mW (Max.)
- Wide Zener Reverse Voltage Range:2.4V to 43V
- Planar Die Construction
- Ultra-Small Surface Mount Package
- General purpose, Medium Current

SOD-123



Absolute Maximum Ratings at T_A = 25 ℃

Parameter	Symbols	Value	Unit
Maximum Power Dissipation Note1	P_D	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics at T_A = 25 ℃

Parameter	Symbols	Max.	Unit
Forward Voltage Note2 at I_F = 10 mA	V_F	0.9	V

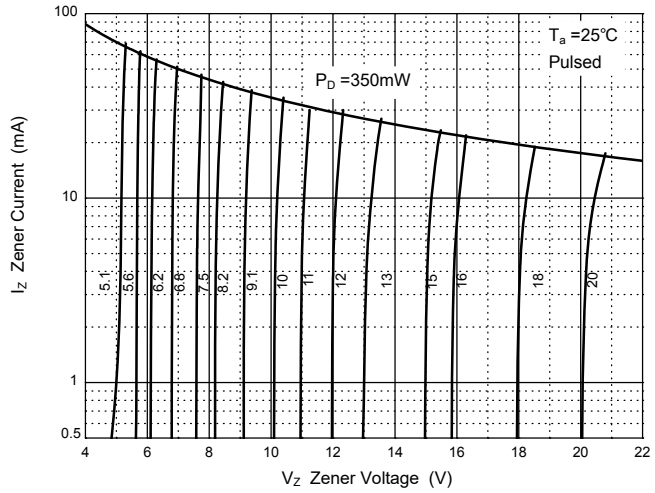
Characteristics at T_A = 25 ℃

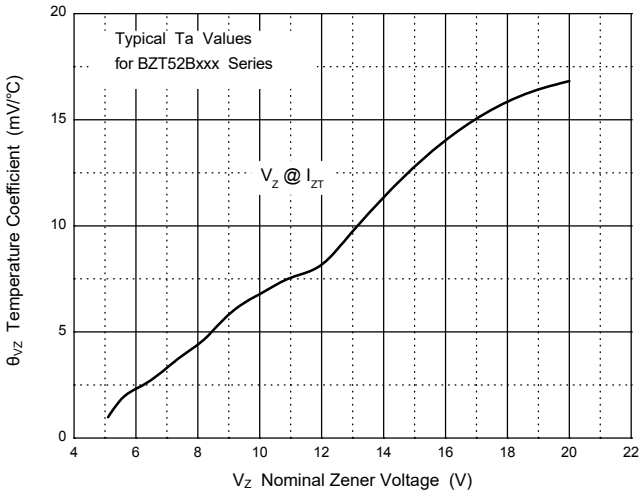
Type	Marking Code	Zener Voltage Range Note2			I_{ZT}	Maximum Zener Impedance Note3		I_{ZK}	Reverse Current Note2		Typical Temperature Coefficent at I_{ZTC} mV/°C		Test Current I_{ZTC}
		V_{ZT} at I_{ZT}				Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}		I_R	at V_R			
		Min.(V)	Nom.(V)	Max.(V)	mA	Max.(Ω)	Max.(Ω)	mA	Max.(μA)	(V)	Min.	Max.	mA
BZT52B2V4	2WX	2.35	2.4	2.45	5	100	600	1	50	1	-3.5	0	5
BZT52B2V7	2W1	2.65	2.7	2.75	5	100	600	1	20	1	-3.5	0	5
BZT52B3V0	2W2	2.94	3	3.06	5	95	600	1	10	1	-3.5	0	5
BZT52B3V3	2W3	3.23	3.3	3.37	5	95	600	1	5	1	-3.5	0	5
BZT52B3V6	2W4	3.53	3.6	3.67	5	90	600	1	5	1	-3.5	0	5
BZT52B3V9	2W5	3.82	3.9	3.98	5	90	600	1	3	1	-3.5	0	5
BZT52B4V3	2W6	4.21	4.3	4.39	5	90	600	1	3	1	-3.5	0	5
BZT52B4V7	2W7	4.61	4.7	4.79	5	80	500	1	3	2	-3.5	0.2	5
BZT52B5V1	2W8	5	5.1	5.2	5	60	480	1	2	2	-2.7	1.2	5
BZT52B5V6	2W9	5.49	5.6	5.71	5	40	400	1	1	2	-2	2.5	5
BZT52B6V2	2WA	6.08	6.2	6.32	5	10	150	1	3	4	0.4	3.7	5
BZT52B6V8	2WB	6.66	6.8	6.94	5	15	80	1	2	4	1.2	4.5	5
BZT52B7V5	2WC	7.35	7.5	7.65	5	15	80	1	1	5	2.5	5.3	5
BZT52B8V2	2WD	8.04	8.2	8.36	5	15	80	1	0.7	5	3.2	6.2	5
BZT52B9V1	2WE	8.92	9.1	9.28	5	15	100	1	0.5	6	3.8	7	5
BZT52B10	2WF	9.8	10	10.2	5	20	150	1	0.2	7	4.5	8	5
BZT52B11	2WG	10.78	11	11.22	5	20	150	1	0.1	8	5.4	9	5
BZT52B12	2WH	11.76	12	12.24	5	25	150	1	0.1	8	6	10	5
BZT52B13	2WI	12.74	13	13.26	5	30	170	1	0.1	8	7	11	5
BZT52B15	2WJ	14.7	15	15.3	5	30	200	1	0.1	10.5	9.2	13	5
BZT52B16	2WK	15.68	16	16.32	5	40	200	1	0.1	11.2	10.4	14	5
BZT52B18	2WL	17.64	18	18.36	5	45	225	1	0.1	12.6	12.4	16	5
BZT52B20	2WM	19.6	20	20.4	5	55	225	1	0.1	14	14.4	18	5
BZT52B22	2WN	21.56	22	22.44	5	55	250	1	0.1	15.4	16.4	20	5
BZT52B24	2WO	23.52	24	24.48	5	70	250	1	0.1	16.8	18.4	22	5
BZT52B27	2WP	26.46	27	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52B30	2WQ	29.4	30	30.6	2	80	300	0.5	0.1	21	24.4	29.4	2
BZT52B33	2WR	32.34	33	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52B36	2WS	35.28	36	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52B39	2WT	38.22	39	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52B43	2WU	41.16	43	42.84	2	130	350	0.5	0.1	29.4	36.4	45.2	2

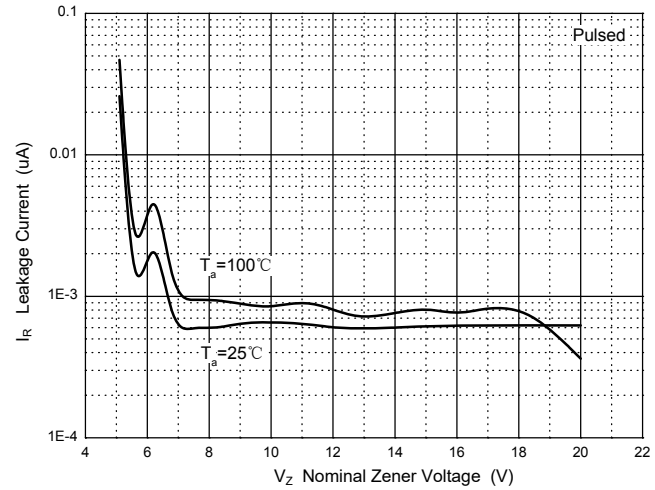
Note: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm^2
2. Short duration test pulse used to minimize self-heating effect
3. f=1KHz

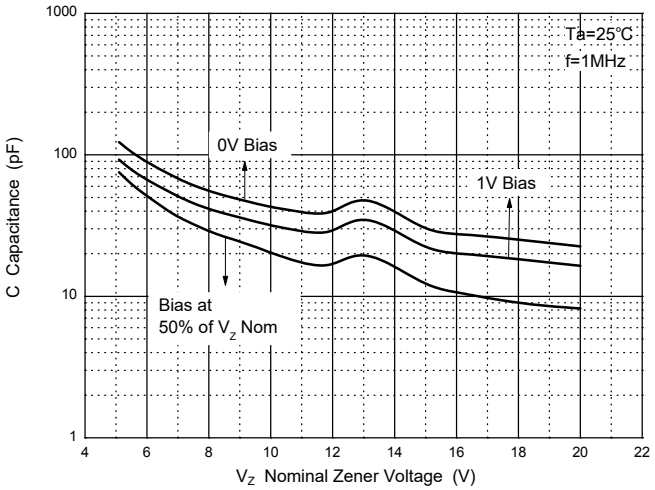
Typical Characteristic Curves

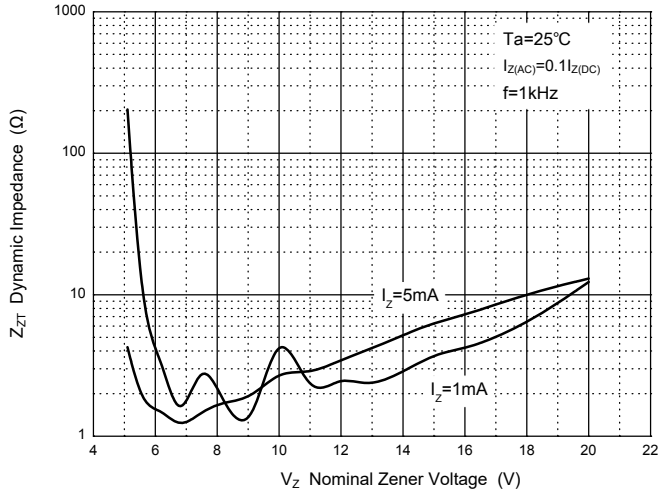
(V_Z = 5.1V to 20 V)

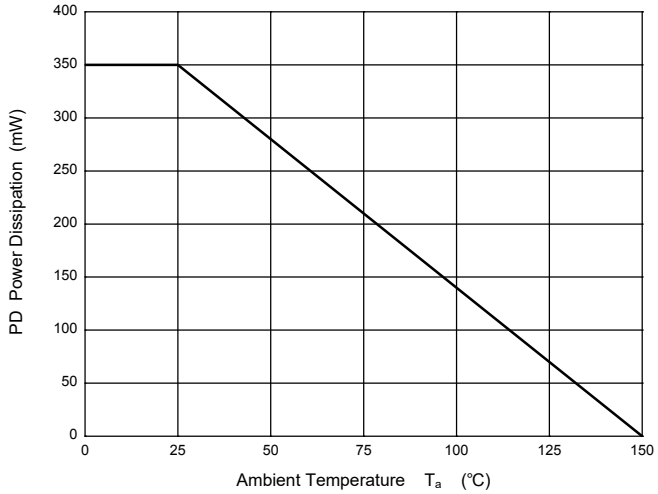








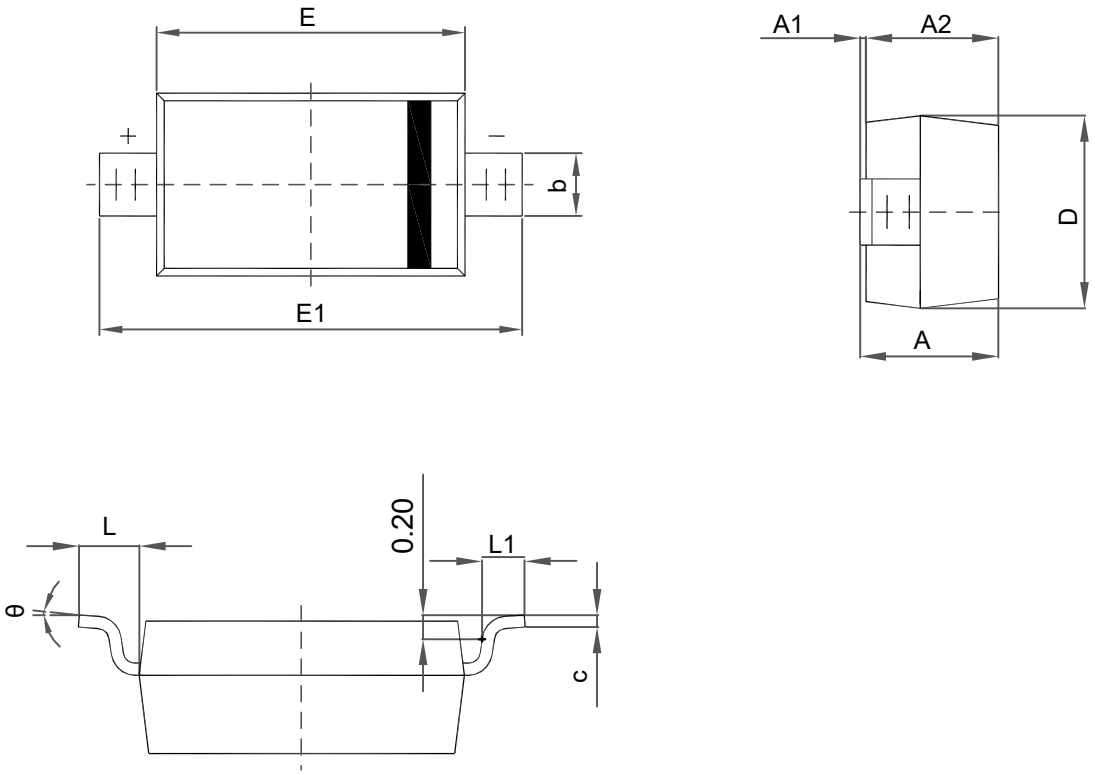




Package Outline

SOD-123

Dimensions in mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°