

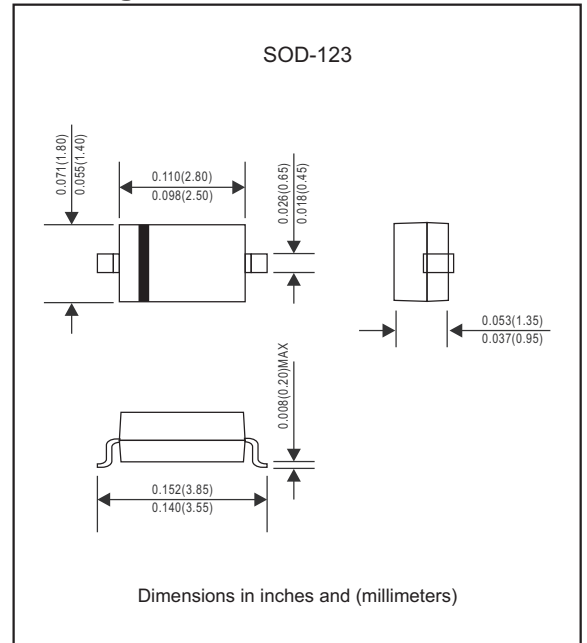
Features

- Silicon epitaxial planar chip structure.
- Zener breakdown voltage range, 2.0V to 75V ex.BZT55B2V0
- Small package size for high density applications.
- Ideally suited for automated assembly processes.
- Pb-Free package is available.
- Compliant to Halogen-free

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.015 gram

Package outline



Maximum ratings (at $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage	@IF = 10mA	V_F			0.9	V
Total power dissipation	at $T_A=25^\circ\text{C}$ Mounted on FR-5 board, note 1	P_D			500	mW
Thermal resistance	Junction to ambient, note 1	$R_{\theta JA}$		305		$^\circ\text{C}/\text{W}$
	Junction to case, note 1	$R_{\theta JC}$		200		$^\circ\text{C}/\text{W}$
Operating junction temperature range		T_J	-55		+150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		+150	$^\circ\text{C}$

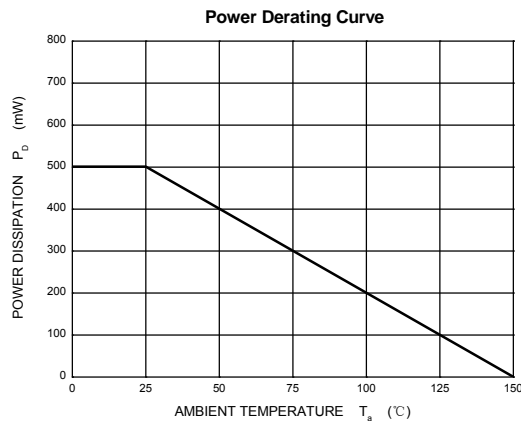
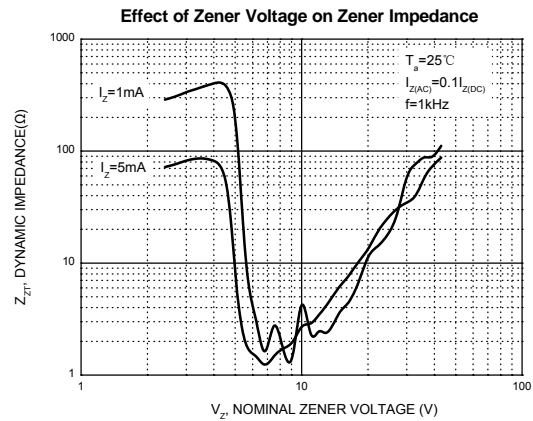
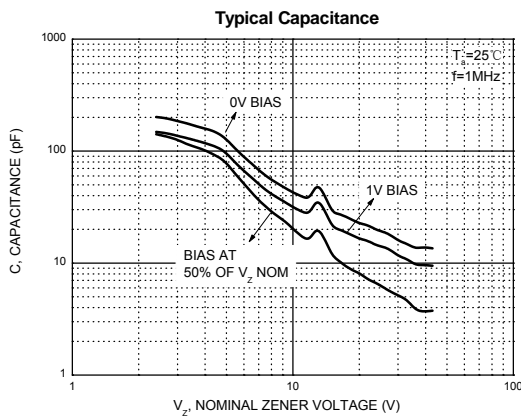
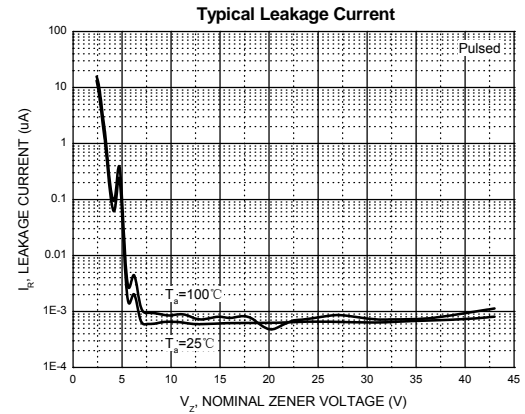
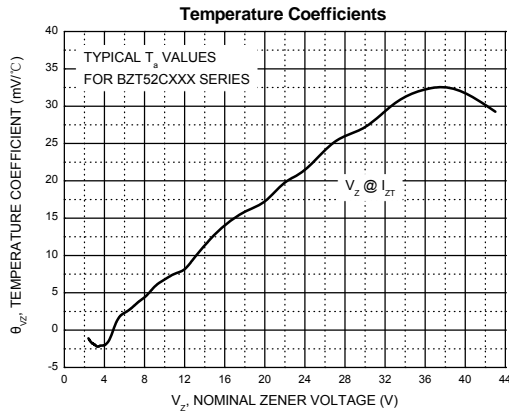
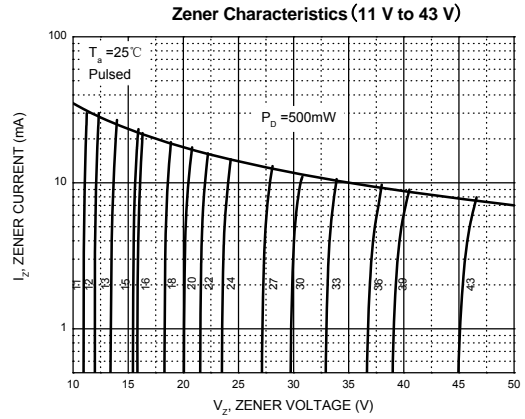
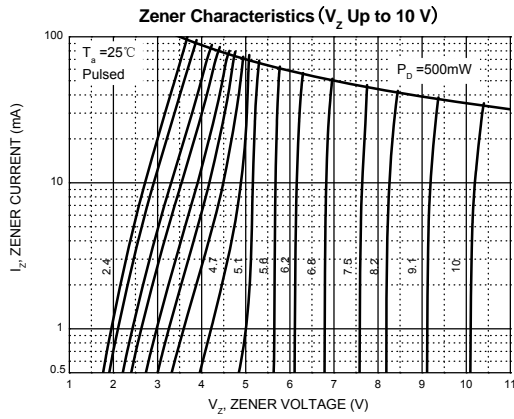
Note1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad area 25mm²

Electrical characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

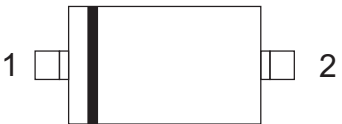

Type	Marking	Zener Voltage Range ⁽¹⁾			I_{ZT} (mA)	Dynamic Impedance Z_{ZT} (at I_{ZT}) Max (Ω)	Reverse Current	
		V_{ZT} (at I_{ZT})					I_R Max (μA)	at V_R (V)
		Min (V)	Nom (V)	Max (V)				
BZT55B2V0	4A	1.96	2	2.04	5	100	120	0.5
BZT55B2V2	4B	2.16	2.2	2.24	5	100	120	0.7
BZT55B2V4	4C	2.35	2.4	2.45	5	100	120	1
BZT55B2V7	4D	2.65	2.7	2.75	5	110	120	1
BZT55B3V0	4E	2.94	3	3.06	5	120	50	1
BZT55B3V3	4F	3.23	3.3	3.37	5	130	20	1
BZT55B3V6	4H	3.53	3.6	3.67	5	130	10	1
BZT55B3V9	4J	3.82	3.9	3.98	5	130	5	1
BZT55B4V3	4K	4.21	4.3	4.39	5	130	5	1
BZT55B4V7	4M	4.61	4.7	4.79	5	130	2	1
BZT55B5V1	4N	5	5.1	5.20	5	130	2	1.5
BZT55B5V6	4P	5.49	5.6	5.71	5	80	1	2.5
BZT55B6V2	4R	6.08	6.2	6.32	5	50	1	3
BZT55B6V8	4X	6.66	6.8	6.94	5	30	0.5	3.5
BZT55B7V5	4Y	7.35	7.5	7.65	5	30	0.5	4
BZT55B8V2	4Z	8.04	8.2	8.36	5	30	0.5	5
BZT55B9V1	5A	8.92	9.1	9.28	5	30	0.5	6
BZT55B10	5B	9.8	10	10.2	5	30	0.1	7
BZT55B11	5C	10.78	11	11.22	5	30	0.1	8
BZT55B12	5D	11.76	12	12.24	5	35	0.1	9
BZT55B13	5E	12.74	13	13.26	5	35	0.1	10
BZT55B15	5F	14.7	15	15.3	5	40	0.1	11
BZT55B16	5H	15.68	16	16.32	5	40	0.1	12
BZT55B18	5J	17.64	18	18.36	5	45	0.1	13
BZT55B20	5K	19.6	20	20.4	5	50	0.1	15
BZT55B22	5M	21.56	22	22.44	5	55	0.1	17
BZT55B24	5N	23.52	24	24.48	5	60	0.1	19
BZT55B27	5P	26.46	27	27.54	5	70	0.1	21
BZT55B30	5R	29.4	30	30.6	5	80	0.1	23
BZT55B33	5X	32.34	33	33.66	5	80	0.1	25
BZT55B36	5Y	35.28	36	36.72	5	90	0.1	27
BZT55B39	5Z	38.22	39	39.78	2.5	100	2	30
BZT55B43	6A	42.14	43	43.86	2.5	130	2	33
BZT55B47	6B	46.06	47	47.94	2.5	150	2	36
BZT55B51	6C	49.98	51	52.02	2.5	180	1	39
BZT55B56	6D	54.88	56	57.12	2.5	180	1	43
BZT55B62	6E	60.76	62	63.24	2.5	200	0.2	47
BZT55B68	6F	66.64	68	69.36	2.5	250	0.2	52
BZT55B75	6H	73.5	75	76.5	2.5	300	0.2	57

(1) V_{ZT} is tested with pulses (20 ms)

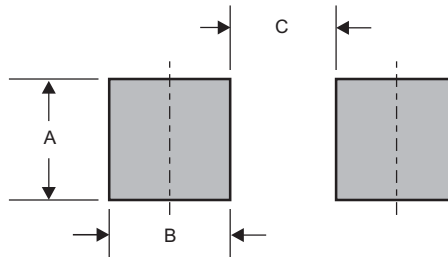
Rating and characteristic curves (BZT55B Series)



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.048 (1.22)	0.036 (0.91)	0.093 (2.36)

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