BZT52-B4V3 SERIES

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 4.3 to 51 Volts **POWER** 500mWatts

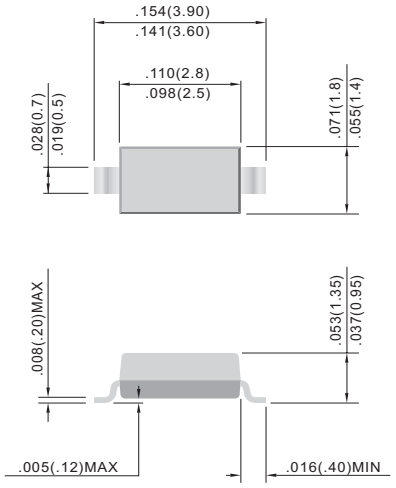
FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Zener Voltages from 4.3~51V
- Ideally Suited for Automated Assembly Processes
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.01 grams
- Mounting Position: Any

SOD-123 Unit: inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Maximum Forward Voltage Drop at IF=100mA	V_F	1.0	V
Maximum Power Dissipation (Notes A) at 25°C	P_D	500	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Notes B)	I_{FSM}	4.0	Amps
Operating Junction and StorageTemperature Range	T_J	-50 to +150	°C

NOTES:

A. Mounted on 5.0mm²(.013mm thick) land areas.

B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

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Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code	Package
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R			
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V		
BZT52-B4V3	4.3	4.21	4.39	95	5.0	600	1.00	5.0	1.0	W7	SOD-123
BZT52-B4V7	4.7	4.61	4.79	78	5.0	500	1.00	5.0	2.0	W8	SOD-123
BZT52-B5V1	5.1	5.00	5.20	60	5.0	480	1.00	0.1	0.8	W9	SOD-123
BZT52-B5V6	5.6	5.49	5.71	40	5.0	400	1.00	0.1	1.0	WA	SOD-123
BZT52-B6V2	6.2	6.08	6.32	10	5.0	150	1.00	0.1	2.0	WB	SOD-123
BZT52-B6V8	6.8	6.66	6.94	8	5.0	80	1.00	0.1	3.0	WC	SOD-123
BZT52-B7V5	7.5	7.35	7.65	7	5.0	80	1.00	0.1	5.0	WD	SOD-123
BZT52-B8V2	8.2	8.04	8.36	7	5.0	80	1.00	0.1	6.0	WE	SOD-123
BZT52-B9V1	9.1	8.92	9.28	10	5.0	100	1.00	0.1	7.0	WF	SOD-123
BZT52-B10	10	9.80	10.20	15	5.0	150	1.00	0.1	7.5	WG	SOD-123
BZT52-B11	11	10.78	11.22	20	5.0	150	1.00	0.1	8.5	WH	SOD-123
BZT52-B12	12	11.76	12.24	20	5.0	150	1.00	0.1	9.0	WI	SOD-123
BZT52-B13	13	12.74	13.26	25	5.0	170	1.00	0.1	10.0	WK	SOD-123
BZT52-B14	14	13.72	14.28	25	5.0	170	1.00	0.1	10.5	WJ	SOD-123
BZT52-B15	15	14.70	15.30	30	5.0	200	1.00	0.1	11.0	WL	SOD-123
BZT52-B16	16	15.68	16.32	40	5.0	200	1.00	0.1	12.0	WM	SOD-123
BZT52-B17	17	16.66	17.34	40	5.0	200	1.00	0.1	13.0	17C	SOD-123
BZT52-B18	18	17.64	18.36	50	5.0	225	1.00	0.1	14.0	WN	SOD-123
BZT52-B20	20	19.60	20.40	50	5.0	225	1.00	0.1	15.0	WO	SOD-123
BZT52-B22	22	21.56	22.44	55	5.0	250	1.00	0.1	17.0	WP	SOD-123
BZT52-B24	24	23.52	24.48	80	5.0	250	1.00	0.1	18.0	WR	SOD-123
BZT52-B27	27	26.46	27.54	80	5.0	300	1.00	0.1	20.0	WS	SOD-123
BZT52-B28	28	27.44	28.56	80	5.0	300	1.00	0.1	22.0	28C	SOD-123
BZT52-B30	30	29.40	30.60	80	5.0	300	1.00	0.1	22.5	WT	SOD-123
BZT52-B33	33	32.34	33.66	80	5.0	325	1.00	0.1	25.0	WU	SOD-123
BZT52-B36	36	35.28	36.72	90	5.0	350	1.00	0.1	27.0	WW	SOD-123
BZT52-B39	39	38.22	39.78	90	5.0	350	1.00	0.1	29.0	WX	SOD-123
BZT52-B43	43	42.14	43.86	100	5.0	700	1.00	0.1	32.0	WY	SOD-123
BZT52-B47	47	46.06	47.94	100	5.0	750	1.00	0.1	35.0	WZ	SOD-123
BZT52-B51	51	49.98	52.02	100	5.0	750	1.00	0.1	38.0	XA	SOD-123

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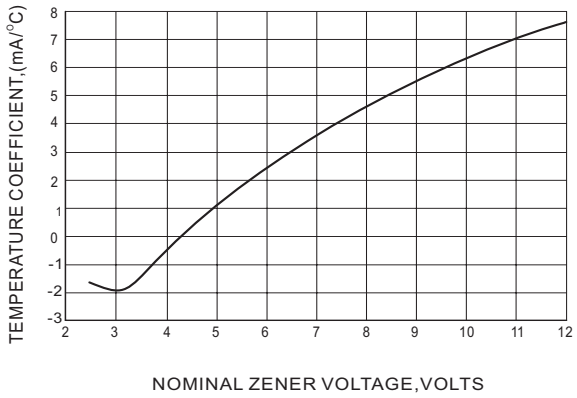

Fig.1 TEMPERATURE COEFFICENTS

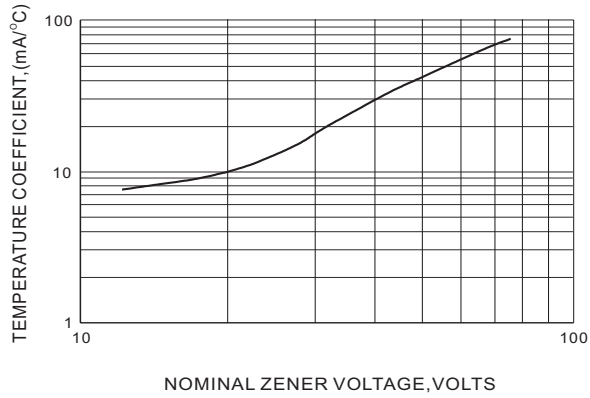

Fig.2 TEMPERATURE COEFFICENTS

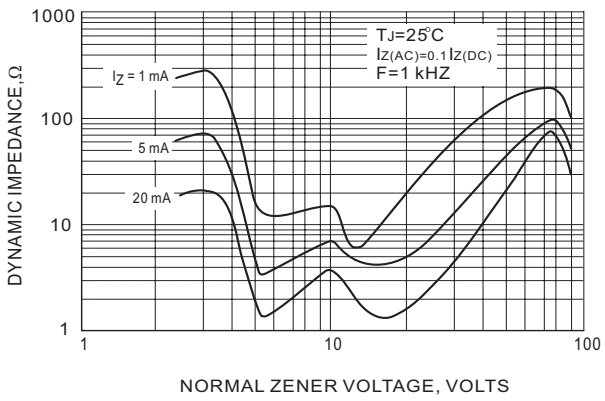

Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

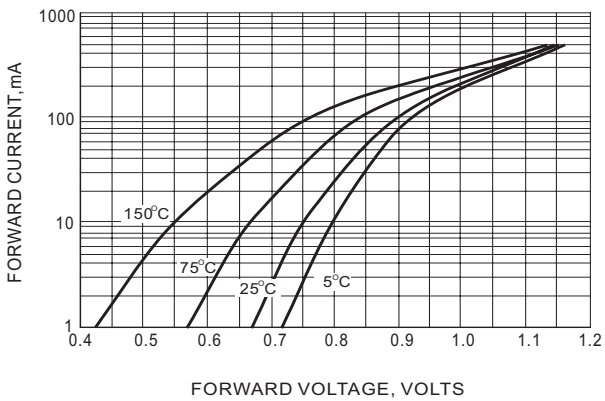

Fig.4 TYPICAL FORWARD VOLTAGE

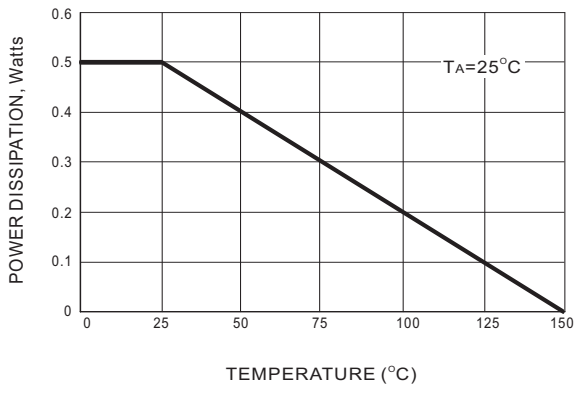

Fig.5 STEADY STATE POWER DERATING

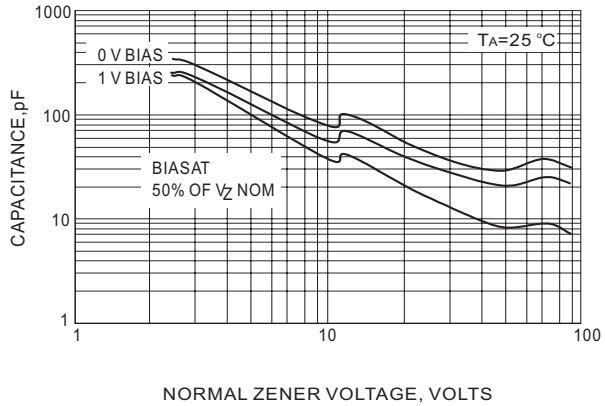

Fig.6 TYPICAL CAPACITANCE

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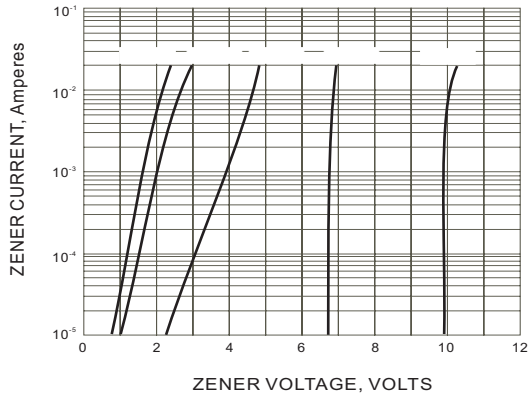

Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

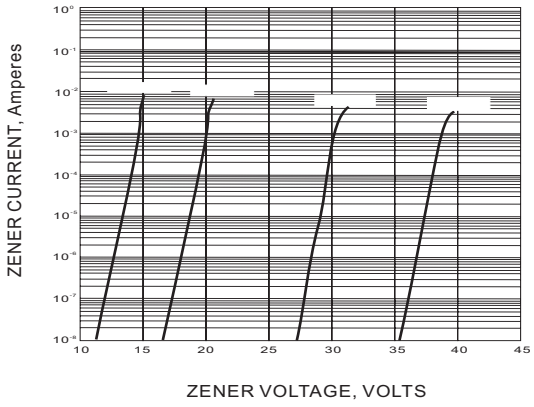

Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

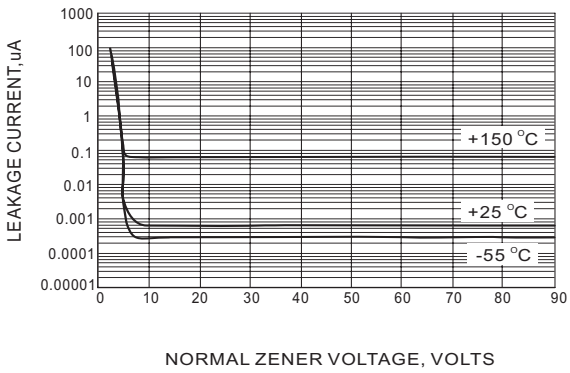

Fig.9 TYPICAL LEAKAGE CURRENT

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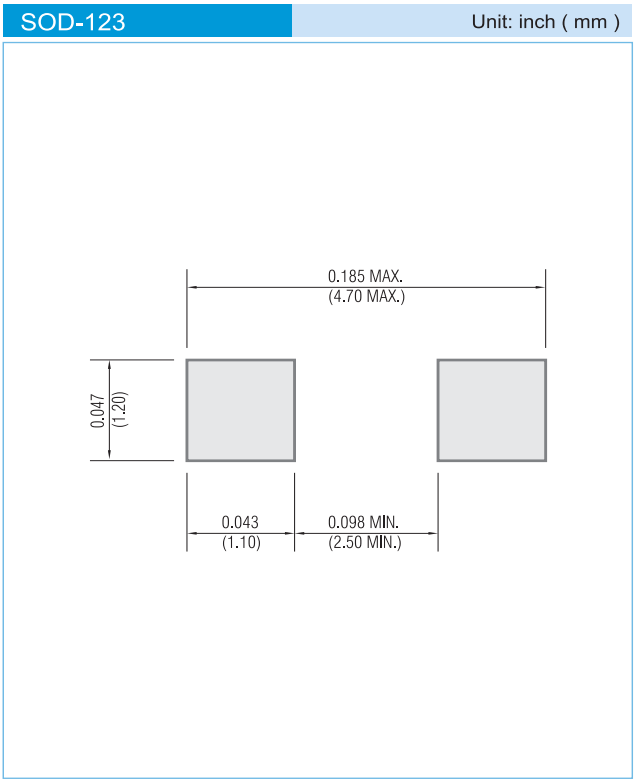
MOUNTING PAD LAYOUT

SOD-123 Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 10K per 13" plastic Reel

  T/R - 3K per 7" plastic Reel

LEGAL STATEMENT