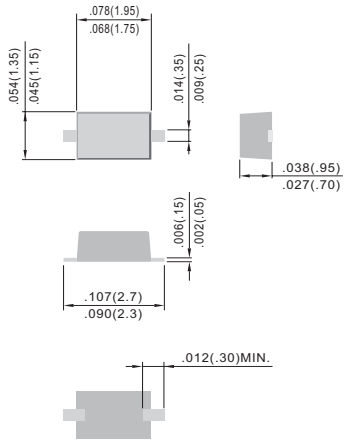
DATA SHEET

BZT52-B4V3S SERIES

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 4.3 to 39 Volts **POWER** 410 mWatts

SOD-323 Unit: inch (mm)



FEATURES

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 4.3~39V
- Ideally Suited for Automated Assembly Processes
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.0041 grams
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Maximum Forward Voltage Drop at IF=10mA	V_F	0.9	V
Power Dissipation (Notes A) at 25°C	P_D	410	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Notes B)	I_{FSM}	2.0	Amps
Operating Junction and StorageTemperature Range	T_J	-55 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.

Part Number	Marking Code	V_Z @ I_{ZT}			Maximum Zener Impedance				Maximum Leakage Current		Package
					Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @V_R		
		Nom. V	Min. V	Max. V	O	mA	O	mA	uA	V	
200 mWatt ZENER DIODES											
BZT52-B4V3S	4B3	4.3	4.21	4.39	95	5.0	500	1.00	5.0	1.0	SOD-323
BZT52-B4V7S	4B7	4.7	4.61	4.79	78	5.0	500	1.00	5.0	2.0	SOD-323
BZT52-B5V1S	5B1	5.1	5.00	5.20	60	5.0	480	1.00	0.1	0.8	SOD-323
BZT52-B5V6S	5B6	5.6	5.49	5.71	40	5.0	400	1.00	0.1	1.0	SOD-323
BZT52-B6V2S	6B2	6.2	6.08	6.32	10	5.0	200	1.00	0.1	2.0	SOD-323
BZT52-B6V8S	6B8	6.8	6.66	6.94	8	5.0	150	1.00	0.1	3.0	SOD-323
BZT52-B7V5S	7B5	7.5	7.35	7.65	7	5.0	50	1.00	0.1	5.0	SOD-323
BZT52-B8V2S	8B2	8.2	8.04	8.36	7	5.0	50	1.00	0.1	6.0	SOD-323
BZT52-B9V1S	9B1	9.1	8.92	9.28	10	5.0	50	1.00	0.1	7.0	SOD-323
BZT52-B10S	10B	10	9.80	10.20	15	5.0	70	1.00	0.1	7.5	SOD-323
BZT52-B11S	11B	11	10.78	11.22	20	5.0	70	1.00	0.1	8.5	SOD-323
BZT52-B12S	12B	12	11.76	12.24	20	5.0	90	1.00	0.1	9.0	SOD-323
BZT52-B13S	13B	13	12.74	13.26	25	5.0	110	1.00	0.1	10.0	SOD-323
BZT52-B14S	14B	14	13.72	14.28	25	5.0	110	1.00	0.1	10.5	SOD-323
BZT52-B15S	15B	15	14.70	15.30	30	5.0	110	1.00	0.1	11.0	SOD-323
BZT52-B16S	16B	16	15.68	16.32	40	5.0	170	1.00	0.1	12.0	SOD-323
BZT52-B17S	17B	17	16.66	17.34	40	5.0	170	1.00	0.1	13.0	SOD-323
BZT52-B18S	18B	18	17.64	18.36	50	5.0	170	1.00	0.1	14.0	SOD-323
BZT52-B20S	20B	20	19.60	20.40	50	5.0	220	1.00	0.1	15.0	SOD-323
BZT52-B22S	22B	22	21.56	22.44	55	5.0	220	1.00	0.1	17.0	SOD-323
BZT52-B24S	24B	24	23.52	24.48	80	5.0	220	1.00	0.1	18.0	SOD-323
BZT52-B27S	27B	27	26.46	27.54	80	5.0	250	1.00	0.1	20.0	SOD-323
BZT52-B28S	28B	28	27.44	28.56	80	5.0	250	1.00	0.1	22.0	SOD-323
BZT52-B30S	30B	30	29.40	30.60	80	5.0	250	1.00	0.1	22.5	SOD-323
BZT52-B33S	33B	33	32.34	33.66	80	5.0	250	1.00	0.1	25.0	SOD-323
BZT52-B36S	36B	36	35.28	36.72	80	5.0	250	1.00	0.1	27.0	SOD-323
BZT52-B39S	39B	39	38.22	39.78	80	5.0	300	1.00	0.1	29.0	SOD-323

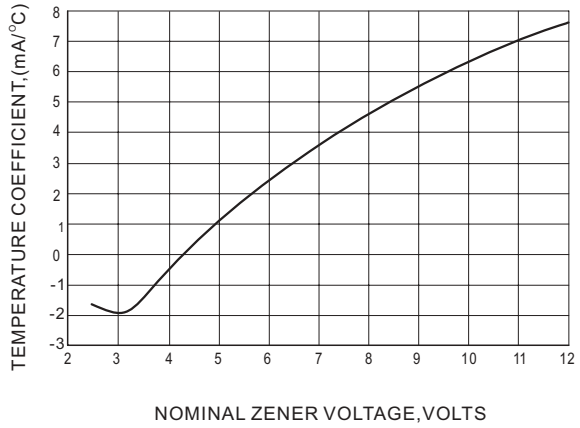


Fig.1 TEMPERATURE COEFFICENTS

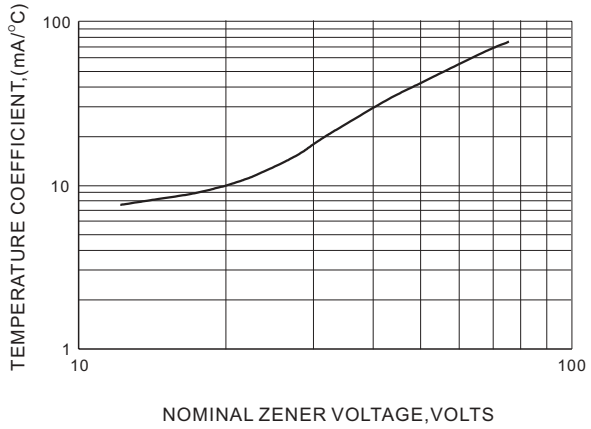


Fig.2 TEMPERATURE COEFFICENTS

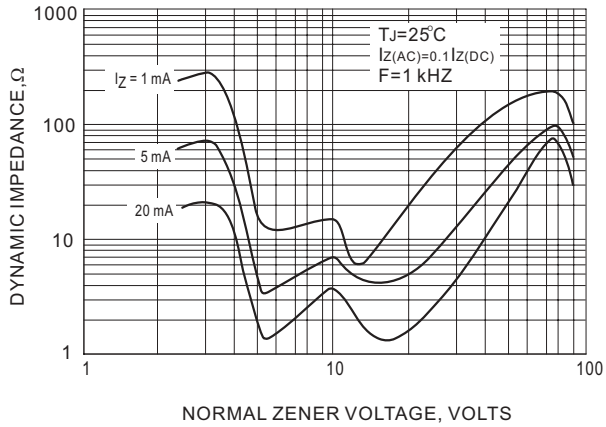


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

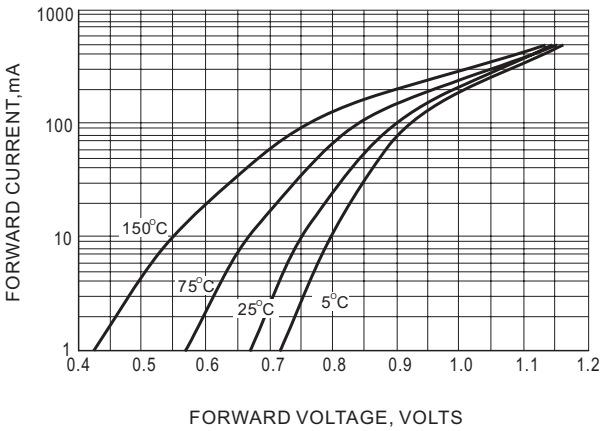


Fig.4 TYPICAL FORWARD VOLTAGE

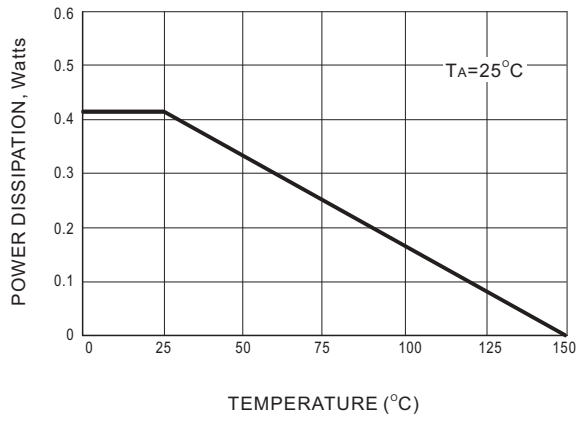


Fig.5 STEADY STATE POWER DERATING

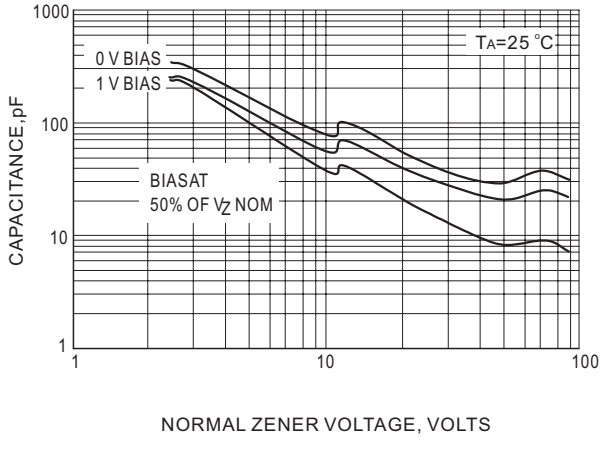


Fig.6 TYPICAL CAPACITANCE

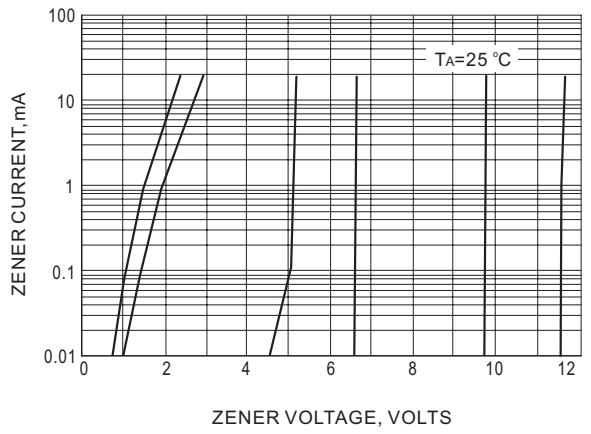


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

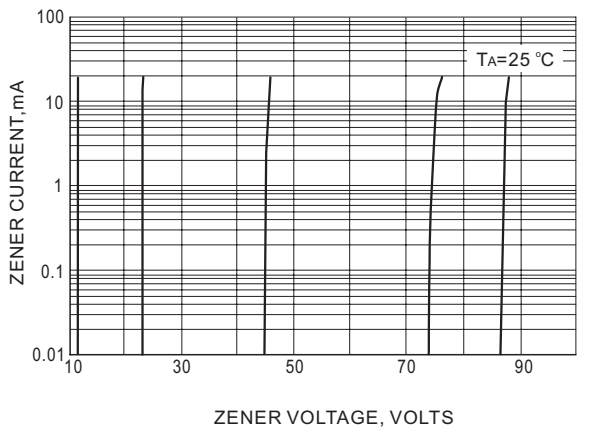


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

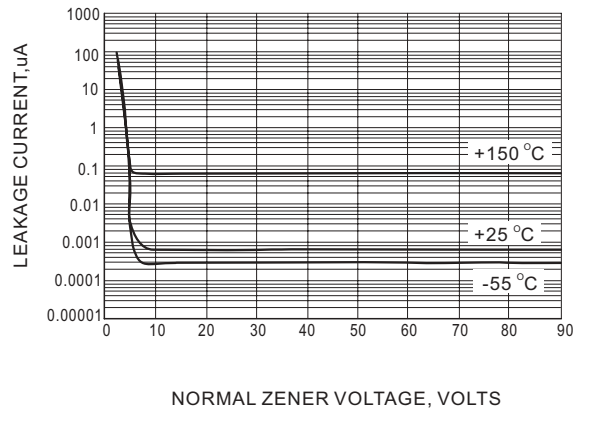
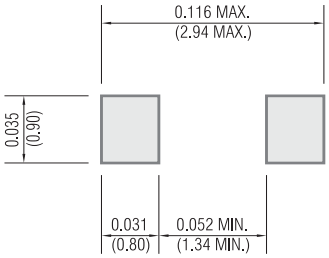


Fig.9 TYPICAL LEAKAGE CURRENT

MOUNTING PAD LAYOUT

SOD-323 Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 12K per 13" plastic Reel

  T/R - 5K per 7" plastic Reel

LEGAL STATEMENT

IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.