

DATA SHEET

BZT52-B2V4 SERIES

SURFACE MOUNT ZENER DIODE

VOLTAGE 2.4~75 V **POWER** 500 mW

FEATURES

- PLANAR DIE CONSTRUCTION
- 500mW POWER DISSIPATION
- ZENER VOLTAGES FROM 2.4~75V
- IDEALLY SUITED FOR AUTOMATED ASSEMBLY PROCESSES
- LEAD FREE AND HALOGEN-FREE

MECHANICAL DATA

- CASE: SOD-123, MOLDED PLASTIC
- TERMINALS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: SEE DIAGRAM BELOW
- APPROX. WEIGHT: 0.01 GRAMS
- MOUNTING POSITION: ANY



CASE: SOD-123

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

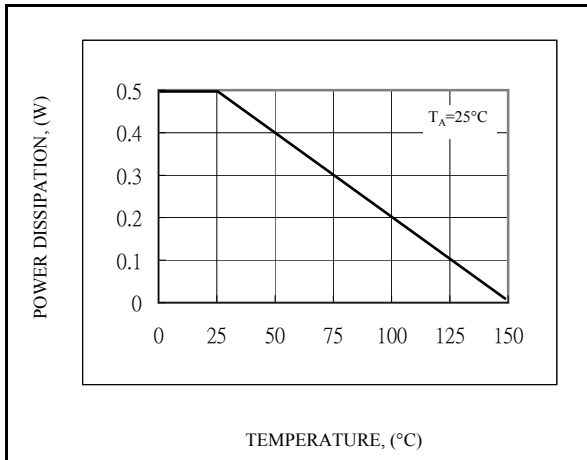
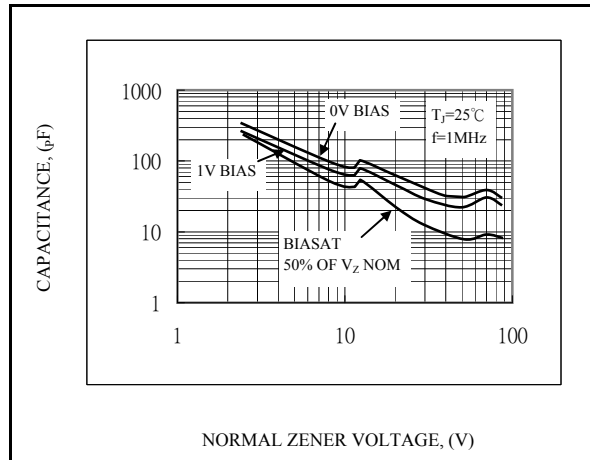
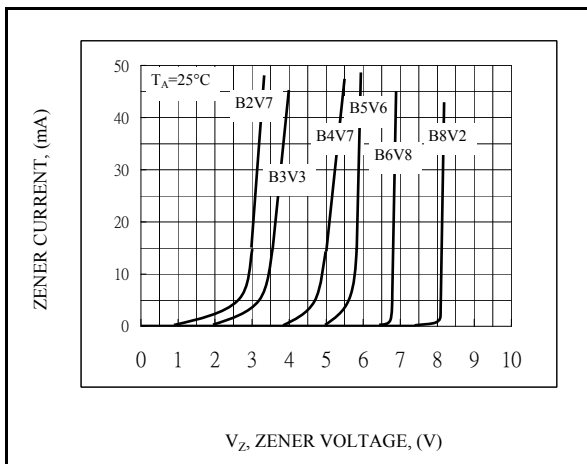
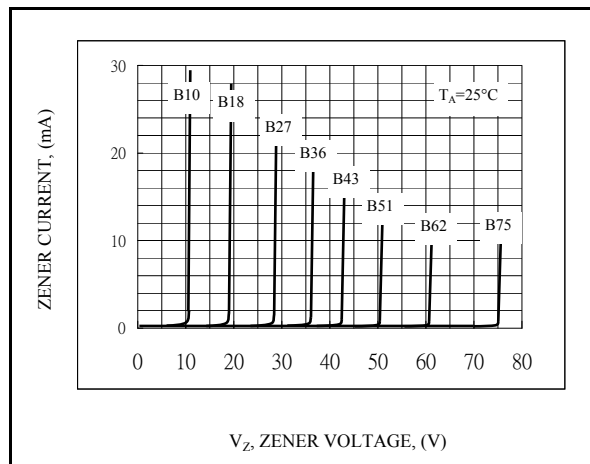
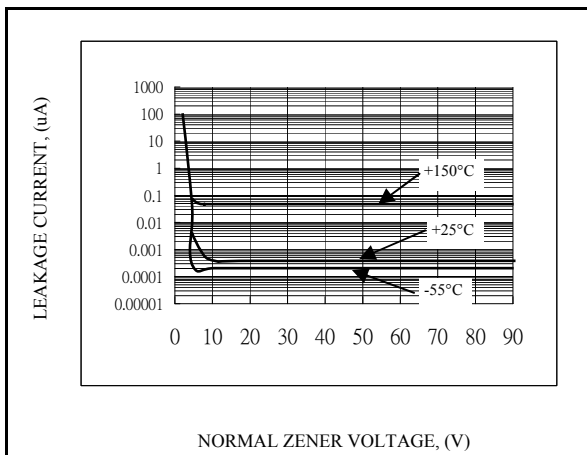
RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	VALUE	UNITS
MAXIMUM FORWARD VOLTAGE DROP AT $I_F=10\text{mA}$	V_F	0.9	V
MAXIMUM POWER DISSIPATION AT 25°C (NOTE.1)	P_D	500	mW
JUNCTION TEMPERATURE RANGE	T_J	-65 TO +150	°C
STORAGE TEMPERATURE RANGE	T_{STG}	-65 TO +150	°C
THERMAL RESISTANCE, JUNCTION TO AMBIENT AIR	$R_{\theta JA}$	250	°C/W

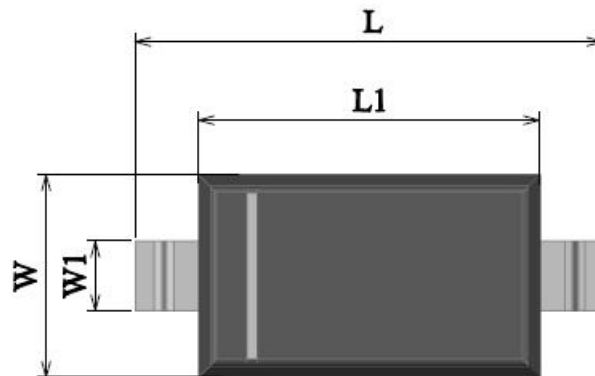
NOTE:

1. VALID PROVIDED THAT DEVICE TERMINALS ARE KEPT AT AMBIENT TEMPERATURE.

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current	
	$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V
500mWatts Zener Diodes									
BZT52-B2V4	2.4	2.35	2.45	94	5	564	1.00	45	1
BZT52-B2V7	2.7	2.65	2.75	94	5	564	1.00	18	1
BZT52-B3V0	3.0	2.94	3.06	89	5	564	1.00	9	1
BZT52-B3V3	3.3	3.23	3.37	89	5	564	1.00	4.5	1
BZT52-B3V6	3.6	3.53	3.67	84	5	564	1.00	4.5	1
BZT52-B3V9	3.9	3.82	3.98	84	5	564	1.00	2.7	1
BZT52-B4V3	4.3	4.21	4.39	84	5	564	1.00	2.7	1
BZT52-B4V7	4.7	4.61	4.79	80	5	470	1.00	2.7	2
BZT52-B5V1	5.1	5.00	5.20	60	5	451	1.00	1.8	2
BZT52-B5V6	5.6	5.49	5.71	40	5	376	1.00	0.9	2
BZT52-B6V2	6.2	6.08	6.32	10	5	141	1.00	2.7	4
BZT52-B6V8	6.8	6.66	6.94	15	5	75	1.00	1.8	4
BZT52-B7V5	7.5	7.35	7.65	15	5	75	1.00	0.9	5
BZT52-B8V2	8.2	8.04	8.36	15	5	75	1.00	0.63	5
BZT52-B9V1	9.1	8.92	9.28	15	5	94	1.00	0.45	6
BZT52-B10	10	9.80	10.20	20	5	141	1.00	0.18	7
BZT52-B11	11	10.78	11.22	20	5	141	1.00	0.09	8
BZT52-B12	12	11.76	12.24	25	5	141	1.00	0.09	8
BZT52-B13	13	12.74	13.26	30	5	160	1.00	0.09	8
BZT52-B15	15	14.70	15.30	30	5	188	1.00	0.045	10.5
BZT52-B16	16	15.68	16.32	40	5	188	1.00	0.045	11.2
BZT52-B18	18	17.64	18.36	45	5	212	1.00	0.045	12.6
BZT52-B20	20	19.60	20.40	55	5	212	1.00	0.045	14.0
BZT52-B22	22	21.56	22.44	55	5	235	1.00	0.045	15.4
BZT52-B24	24	23.52	24.48	70	5	235	1.00	0.045	16.8
BZT52-B27	27	26.46	27.54	80	2	282	0.50	0.045	18.9
BZT52-B30	30	29.40	30.60	80	2	282	0.50	0.045	21.0
BZT52-B33	33	32.34	33.66	80	2	306	0.50	0.045	23.0
BZT52-B36	36	35.28	36.72	90	2	329	0.50	0.045	25.2
BZT52-B39	39	38.22	39.78	130	2	329	0.50	0.045	27.3
BZT52-B43	43	42.14	43.86	141	5	353	0.50	0.045	30.1
BZT52-B47	47	46.06	47.94	160	5	353	0.50	0.045	33.0
BZT52-B51	51	49.98	52.02	169	5	376	0.50	0.045	35.7
BZT52-B56	56	54.88	57.12	188	5	400	0.50	0.045	39.2
BZT52-B62	62	60.76	63.24	202	5	423	0.50	0.045	43.4
BZT52-B68	68	66.64	69.36	226	5	447	0.50	0.045	47.6
BZT52-B75	75	73.50	76.50	240	5	470	0.50	0.045	52.5


Fig.1-STEADY STATE POWER DERATING

Fig.2-TYPICAL CAPACITANCE

Fig.3- $V_Z=2.7$ THRU 8.2 VOLTS

Fig.4- $V_Z=10$ THRU 75VOLTS

Fig.5-TYPICAL LEAKAGE CURRENT

SOD-123 DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
L	3.55	3.85	0.140	0.152
L1	2.60	2.80	0.102	0.110
W	1.50	1.70	0.059	0.067
W1	0.45	0.65	0.018	0.026
H	1.05	1.25	0.041	0.049
H1	0.55	0.75	0.022	0.030