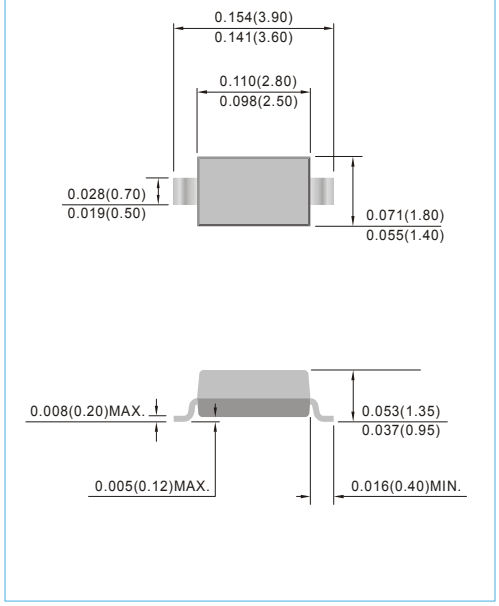
BZT52-B2V4~BZT52-B75

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 2.4 to 75 Volt **POWER** 410 mWatt

SOD-123 Unit : inch(mm)



FEATURES

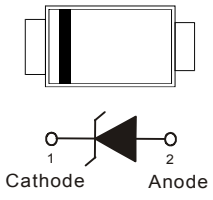
- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4~75V
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.0004 ounces, 0.01 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter		Symbol	Value	Units
Maximum Power Dissipation (Note 1)		P_D	410	mW
Forward Voltage Drop at I_F=10mA		V_F	0.9	V
Thermal Resistance	Junction to Ambient (Note 2)	$R_{\theta JA}$	430	°C/W
	Junction to Lead	$R_{\theta JL}$	320	
Operating Junction Temperature and StorageTemperature Range		T_J	-55 to +150	°C



NOTES:

1. Mounted on 48 cm^2 FR-4 PCB .
2. Mounted on a FR-4 PCB, with minimum recommended Pad

PANJIT SEMI CONDUCTOR

BZT52-B2V4~BZT52-B75

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	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	
410 mWatts Zener Diodes										
BZT52-B2V4	2.4	2.35	2.45	85	5.0	600	1.00	100	1.0	W1
BZT52-B2V7	2.7	2.64	2.75	83	5.0	600	1.00	75	1.0	W2
BZT52-B3	3.0	2.94	3.06	95	5.0	600	1.00	50	1.0	W3
BZT52-B3V3	3.3	3.23	3.37	95	5.0	600	1.00	25	1.0	W4
BZT52-B3V6	3.6	3.52	3.67	95	5.0	600	1.00	15	1.0	W5
BZT52-B3V9	3.9	3.82	3.98	95	5.0	600	1.00	10	1.0	W6
BZT52-B4V3	4.3	4.21	4.39	95	5.0	600	1.00	5.0	1.0	W7
BZT52-B4V7	4.7	4.61	4.79	78	5.0	500	1.00	5.0	1.0	W8
BZT52-B5V1	5.1	5.00	5.20	60	5.0	480	1.00	0.1	0.8	W9
BZT52-B5V6	5.6	5.49	5.71	40	5.0	400	1.00	0.1	1.0	WA
BZT52-B6V2	6.2	6.08	6.32	10	5.0	150	1.00	0.1	2.0	WB
BZT52-B6V8	6.8	6.66	6.94	8	5.0	80	1.00	0.1	3.0	WC
BZT52-B7V5	7.5	7.35	7.65	7	5.0	80	1.00	0.1	5.0	WD
BZT52-B8V2	8.2	8.04	8.36	7	5.0	80	1.00	0.1	6.0	WE
BZT52-B8V7	8.7	8.53	8.87	7	5.0	100	1.00	0.1	6.5	87C
BZT52-B9V1	9.1	8.92	9.28	10	5.0	100	1.00	0.1	7.0	WF
BZT52-B10	10	9.80	10.20	15	5.0	150	1.00	0.1	7.5	WG
BZT52-B11	11	10.78	11.22	20	5.0	150	1.00	0.1	8.5	WH
BZT52-B12	12	11.76	12.24	20	5.0	150	1.00	0.1	9.0	WI
BZT52-B13	13	12.74	13.26	25	5.0	170	1.00	0.1	10.0	WK
BZT52-B14	14	13.72	14.28	25	5.0	170	1.00	0.1	10.5	WJ
BZT52-B15	15	14.70	15.30	30	5.0	200	1.00	0.1	11.0	WL
BZT52-B16	16	15.68	16.32	40	5.0	200	1.00	0.1	12.0	WM
BZT52-B17	17	16.66	17.34	40	5.0	200	1.00	0.1	13.0	17C
BZT52-B18	18	17.64	18.36	50	5.0	225	1.00	0.1	14.0	WN
BZT52-B20	20	19.60	20.40	50	5.0	225	1.00	0.1	15.0	WO
BZT52-B22	22	21.56	22.44	55	5.0	250	1.00	0.1	17.0	WP
BZT52-B24	24	23.52	24.48	80	5.0	250	1.00	0.1	18.0	WR
BZT52-B27	27	26.46	27.54	80	5.0	300	1.00	0.1	20.0	WS
BZT52-B28	28	27.44	28.56	80	5.0	300	1.00	0.1	22.0	28C
BZT52-B30	30	29.40	30.60	80	5.0	300	1.00	0.1	22.5	WT
BZT52-B33	33	32.34	33.66	80	5.0	325	1.00	0.1	25.0	WU
BZT52-B36	36	35.28	36.72	90	5.0	350	1.00	0.1	27.0	WW
BZT52-B39	39	38.22	39.78	90	5.0	350	1.00	0.1	29.0	WX
BZT52-B43	43	42.14	43.86	100	5.0	375	1.00	0.1	32.0	WY
BZT52-B47	47	46.06	47.94	100	5.0	375	1.00	0.1	35.0	WZ
BZT52-B51	51	49.98	52.02	100	5.0	400	1.00	0.1	38.0	XA
BZT52-B56	56	54.88	57.12	135	2.5	1000	1.00	0.1	42.0	X2
BZT52-B62	62	60.76	63.24	150	2.5	1000	1.00	0.1	46.0	X3
BZT52-B68	68	66.64	69.36	200	2.5	1000	1.00	0.1	51.0	X4
BZT52-B75	75	73.50	76.50	250	2.5	1000	1.00	0.1	56.0	X5

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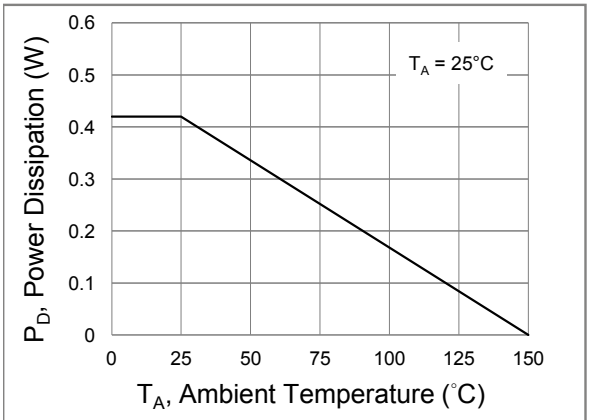

Fig.1 Power Derating Curve

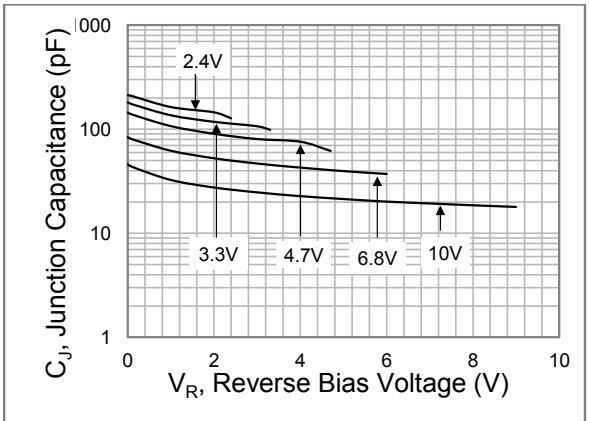

Fig.2 Typical Junction Capacitance

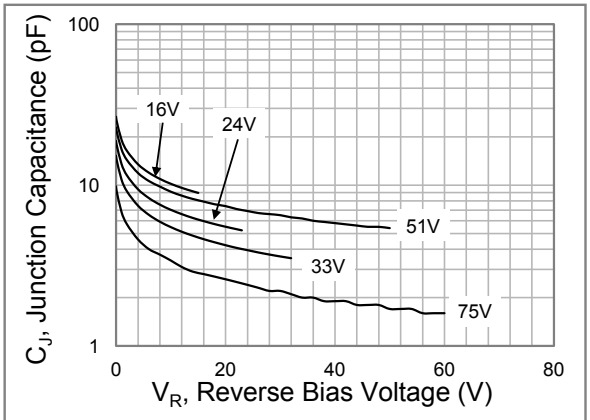

Fig.3 Typical Junction Capacitance

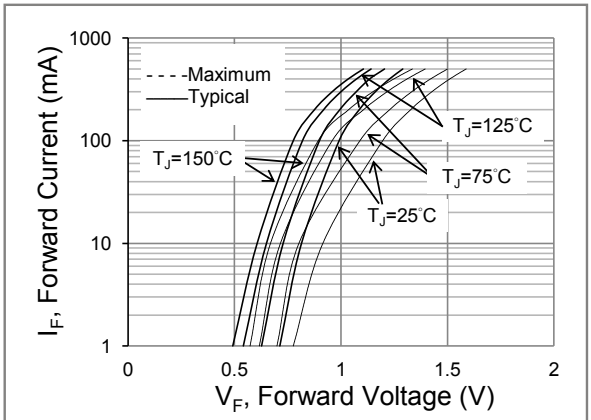

Fig.4 Typical Forward Characteristics

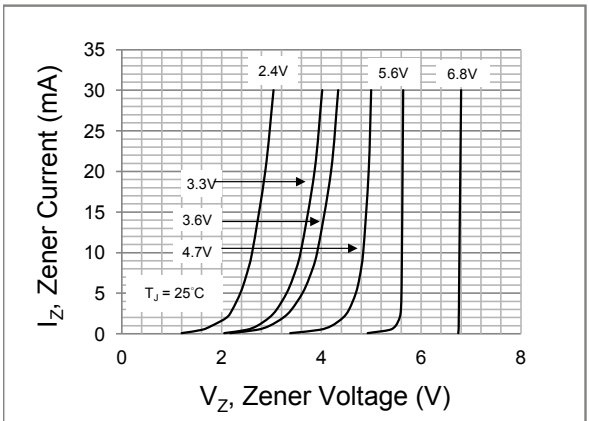

Fig.5 Typical Zener Characteristics

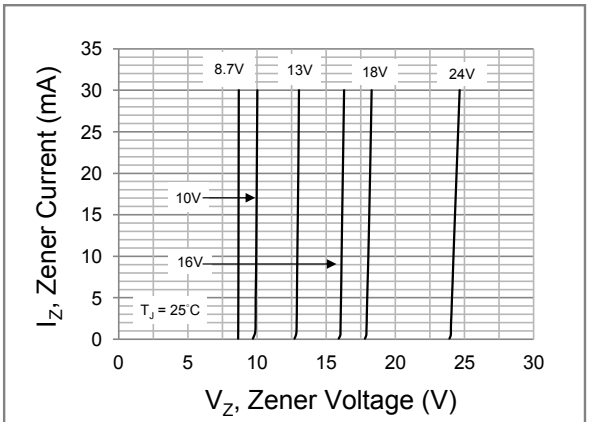

Fig.6 Typical Zener Characteristics

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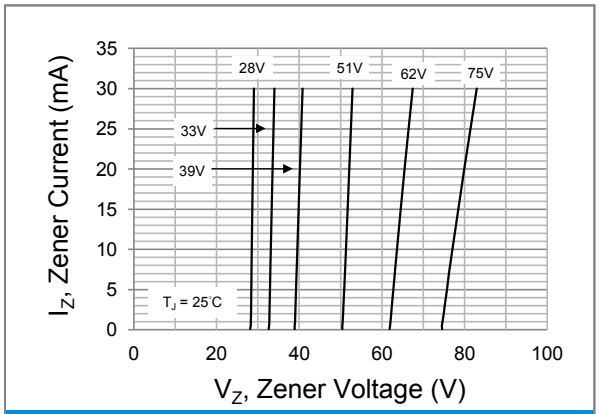

Fig.7 Typical Zener Characteristics

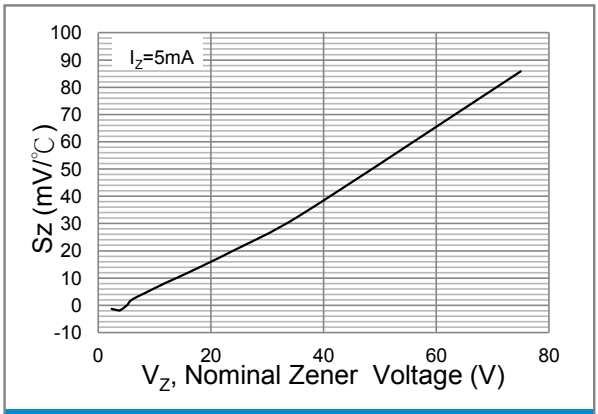

Fig.8 Temperature coefficient as a function of working current; typical values

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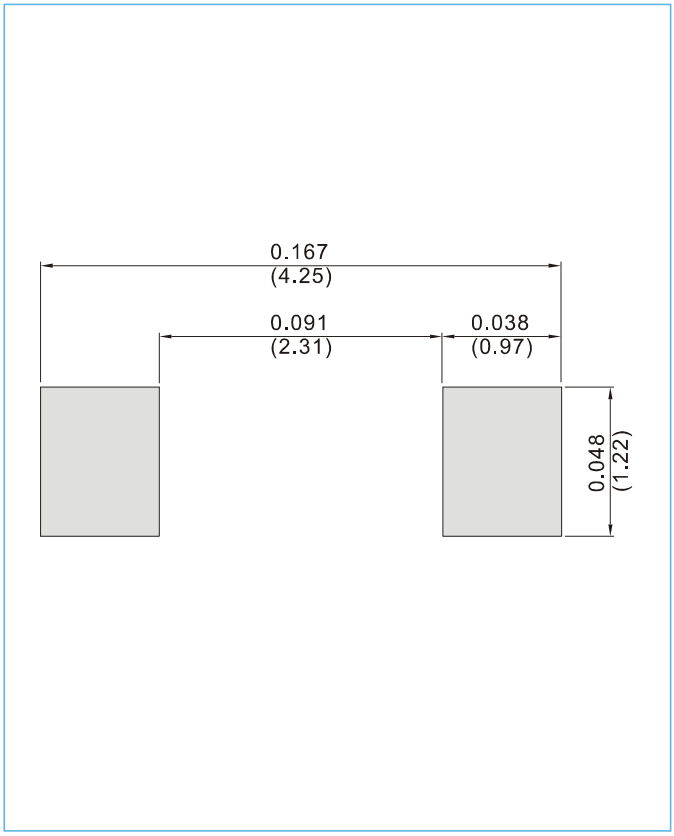
MOUNTING PAD LAYOUT

SOD-123 Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 10K per 13" plastic Reel

  T/R - 3K per 7" plastic Reel

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