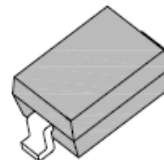


410mW Two Terminals SMD Zener Diodes

Features

- Planar Die Construction
- 410mW Power Dissipation
- Zener Voltage 2.4v to 75v
- Zener Voltage Tolerance: $\pm 2\%$
- Ideally Suited for Automated Assembly Processes
- RoHS Compliance

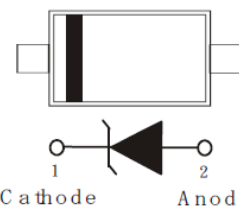


SOD-123



Mechanical Data

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



Maximum Ratings ($T_{Ambient} = 25^{\circ}C$ unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
P_D	Power Dissipation (Note 1)	410	mW	
V_F	Forward Voltage Drop	0.9	V	I _F =10mA
R_{θJA}	Thermal Resistance, Junction to Ambient Air (Note 2)	430	°C/W	
R_{θJL}	Thermal Resistance, Junction to Lead	320		
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C	

Note: 1. Mounted on 48cm² FR-4 PCB.

2. Mounted on an FR-4 PCB, with minimum recommended pad.

410mW Two Terminals SMD Zener Diodes

BZT52B2V4- BZT52B75

Electrical Characteristics ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Part NO.	Marking Code	Normal Zener Voltage @ I _{ZT}			Test Current I _{ZT} (mA)	Max. Zener Impedance			Max. Reverse Leakage Current I _R @ V _R	
		V _Z (V)				Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK} (mA)	I _R (μA)	V _R (V)
		Nom.	Min.	Max.						
BZT52B2V4	W1	2.4	2.35	2.45	5	85	600	1	100	1
BZT52B2V7	W2	2.7	2.64	2.75	5	83	600	1	75	1
BZT52B3V0	W3	3.0	2.94	3.06	5	95	600	1	50	1
BZT52B3V3	W4	3.3	3.23	3.37	5	95	600	1	25	1
BZT52B3V6	W5	3.6	3.52	3.67	5	95	600	1	15	1
BZT52B3V9	W6	3.9	3.82	3.98	5	95	600	1	10	1
BZT52B4V3	W7	4.3	4.21	4.39	5	95	600	1	5	1
BZT52B4V7	W8	4.7	4.61	4.79	5	78	500	1	5	1
BZT52B5V1	W9	5.1	5.00	5.20	5	60	480	1	0.1	0.8
BZT52B5V6	WA	5.6	5.49	5.71	5	40	400	1	0.1	1
BZT52B6V2	WB	6.2	6.08	6.32	5	10	150	1	0.1	2
BZT52B6V8	WC	6.8	6.66	6.94	5	8	80	1	0.1	3
BZT52B7V5	WD	7.5	7.35	7.65	5	7	80	1	0.1	5
BZT52B8V2	WE	8.2	8.04	8.36	5	7	80	1	0.1	6
BZT52B8V7	87C	8.7	8.53	8.87	5	7	100	1	0.1	6.5
BZT52B9V1	WF	9.1	8.92	9.28	5	10	100	1	0.1	7
BZT52B10	WG	10	9.80	10.20	5	15	150	1	0.1	7.5
BZT52B11	WH	11	10.78	11.22	5	20	150	1	0.1	8.5
BZT52B12	WI	12	11.76	12.24	5	20	150	1	0.1	9
BZT52B13	WK	13	12.74	13.26	5	25	170	1	0.1	10
BZT52B14	WJ	14	13.72	14.28	5	25	170	1	0.1	10.5
BZT52B15	WL	15	14.70	15.30	5	30	200	1	0.1	11
BZT52B16	WM	16	15.68	16.32	5	40	200	1	0.1	12
BZT52B17	17C	17	16.66	17.34	5	40	200	1	0.1	13
BZT52B18	WN	18	17.64	18.36	5	50	225	1	0.1	14
BZT52B20	WO	20	19.60	20.40	5	50	225	1	0.1	15
BZT52B22	WP	22	21.56	22.44	5	55	250	1	0.1	17
BZT52B24	WR	24	23.52	24.48	5	80	250	1	0.1	18
BZT52B27	WS	27	26.46	27.54	5	80	300	1	0.1	20
BZT52B28	28C	28	27.44	28.56	5	80	300	1	0.1	22
BZT52B30	WT	30	29.40	30.60	5	80	300	1	0.1	22.5
BZT52B33	WU	33	32.34	33.66	5	80	325	1	0.1	25

410mW Two Terminals SMD Zener Diodes

BZT52B2V4- BZT52B75

Part NO.	Marking Code	Nominal Zener Voltage @ I _{ZT}			Test Current I _{ZT} (mA)	Max. Zener Impedance			Max. Reverse Leakage Current I _R @ V _R	
		V _Z (V)				Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK} (mA)	I _R (μA)	V _R (V)
		Nom.	Min.	Max.						
BZT52B36	WW	36	35.28	36.72	5	90	350	1	0.1	27
BZT52B39	WX	39	38.22	39.78	5	90	375	1	0.1	29
BZT52B43	WY	43	42.14	43.86	5	100	375	1	0.1	32
BZT52B47	WZ	47	46.06	47.94	5	100	375	1	0.1	35
BZT52B51	XA	51	49.98	52.02	5	100	400	1	0.1	38
BZT52B56	X2	56	54.88	57.12	2.5	135	1000	1	0.1	42
BZT52B62	X3	62	60.76	63.24	2.5	150	1000	1	0.1	46
BZT52B68	X4	68	66.64	69.36	2.5	200	1000	1	0.1	51
BZT52B75	X5	75	73.50	76.50	2.5	250	1000	1	0.1	56

Typical Characteristics Curves

Fig.1- Power Derating Curve

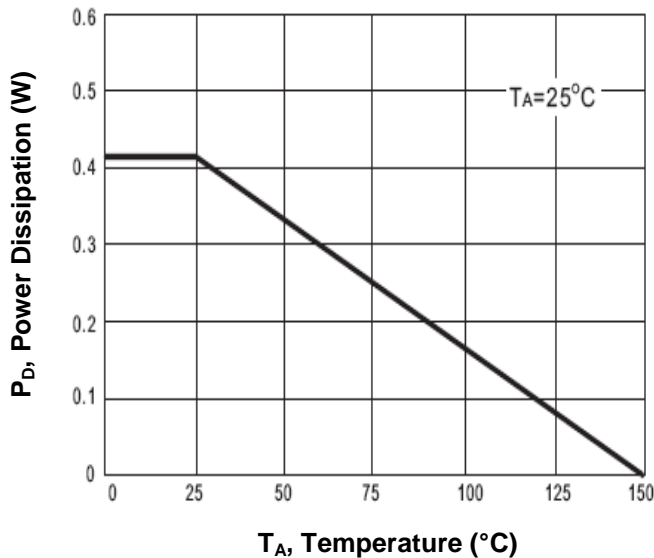
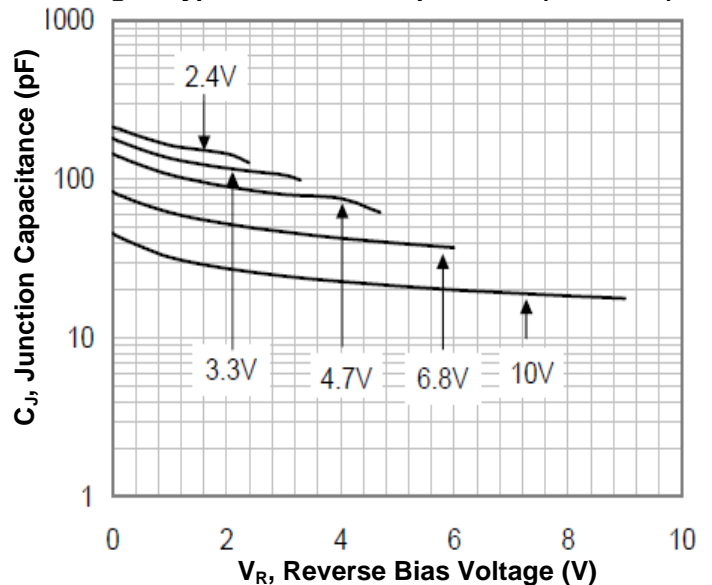


Fig.2- Typical Junction Capacitance(2.4V~10V)



410mW Two Terminals SMD Zener Diodes

BZT52B2V4- BZT52B75

Fig.3- Typical Junction Capacitance (16V~75V)

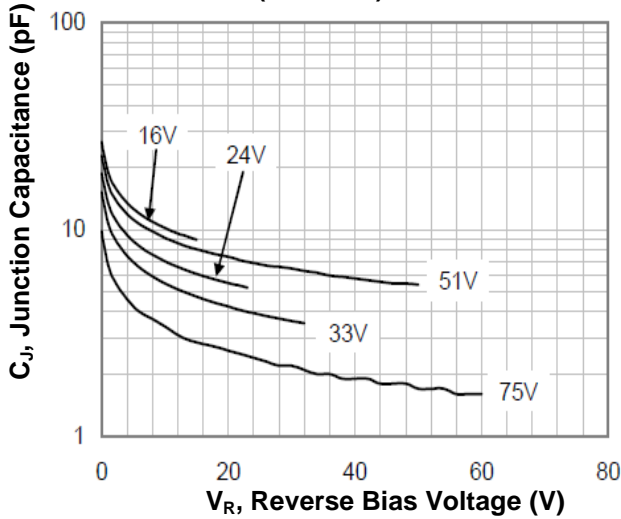


Fig.4- Typical Forward Characteristics

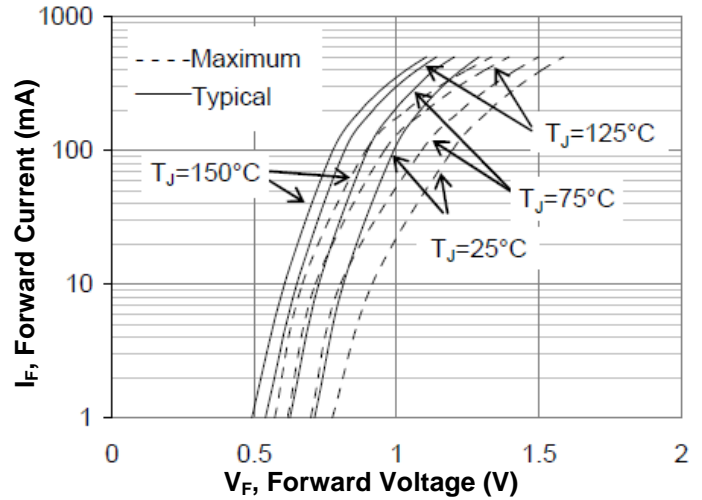


Fig.5- Typical Zener Characteristics (2.4V~6.8V)

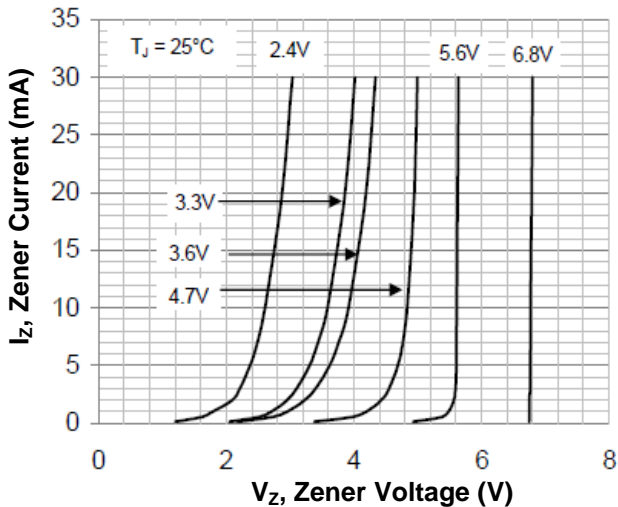
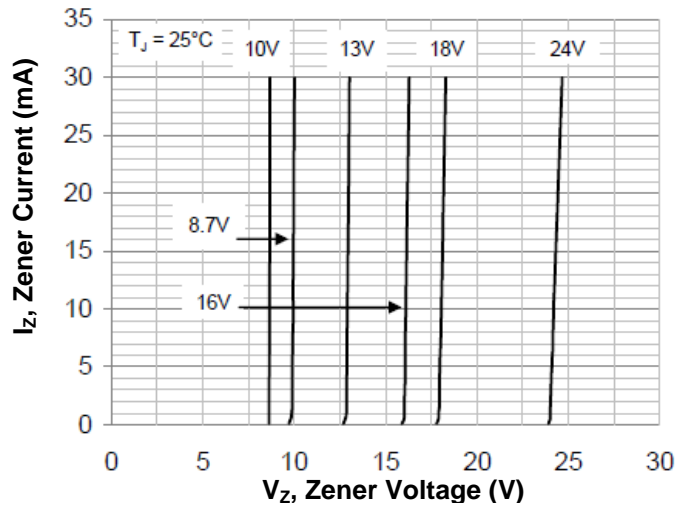


Fig.6- Typical Zener Characteristics (8.7V~24V)



410mW Two Terminals SMD Zener Diodes

BZT52B2V4- BZT52B75

Fig.7- Typical Zener Characteristics
(28V~75V)

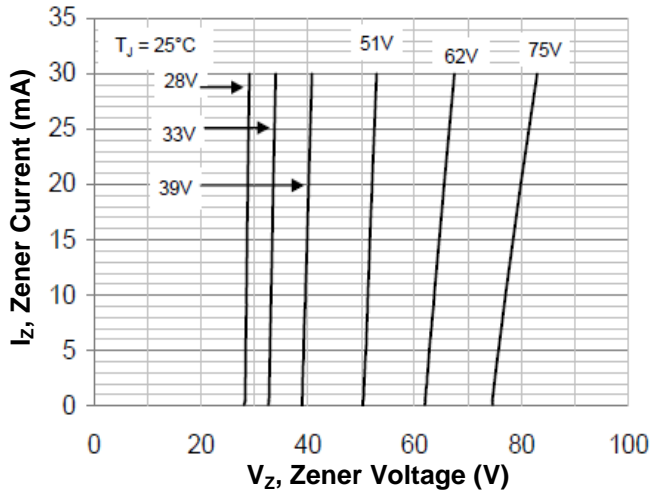
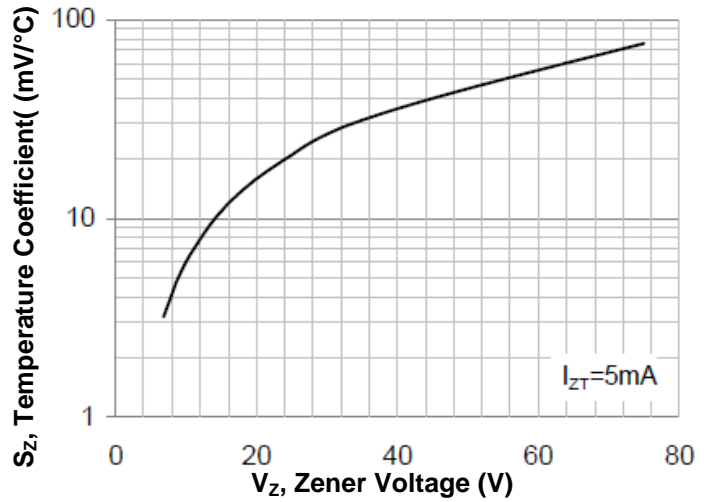
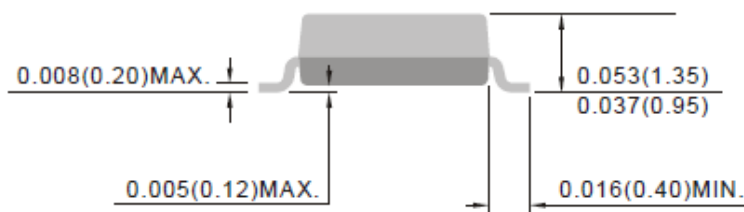
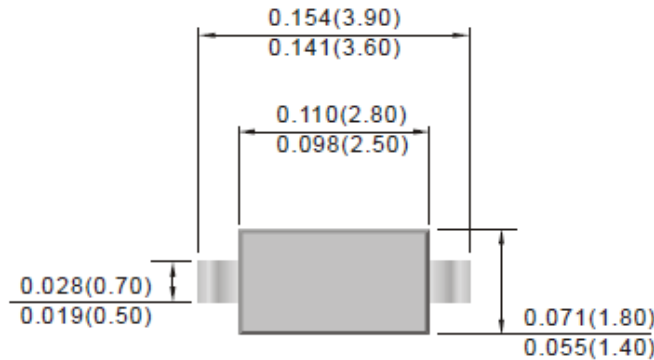


Fig.4- Typical Forward Characteristics



Dimensions in inch (mm)

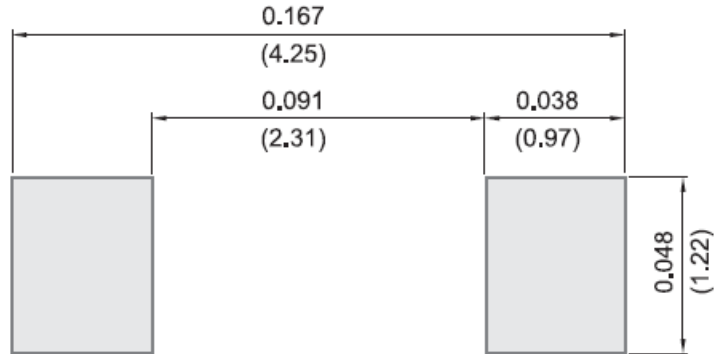
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410mW Two Terminals SMD Zener Diodes

BZT52B2V4- BZT52B75

Mounting Pad Layout in inch (mm)



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