



# BZT52-B2V4~BZT52-B75

## SURFACE MOUNT SILICON ZENER DIODES

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

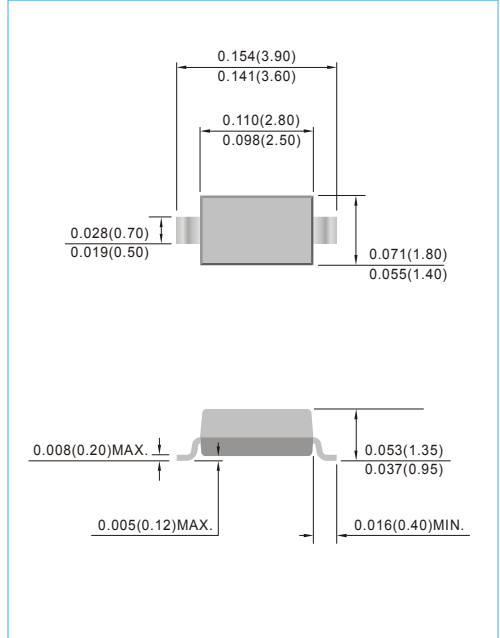
**SOD-123**    Unit : inch(mm)

### 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)

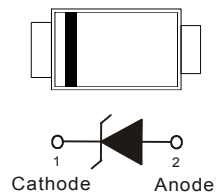
### MECHANICAL DATA

- 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 (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Maximum Power Dissipation (Note 1)	P <sub>D</sub>	410	mW
Forward Voltage Drop at I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Thermal Resistance	Junction to Ambient (Note 2)	R <sub>θJA</sub>	430
	Junction to Lead	R <sub>θJL</sub>	320
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub>	-55 to +150	°C



### NOTES:

1. Mounted on 48 cm<sup>2</sup> FR-4 PCB .
2. Mounted on a FR-4 PCB, with minimum recommended Pad

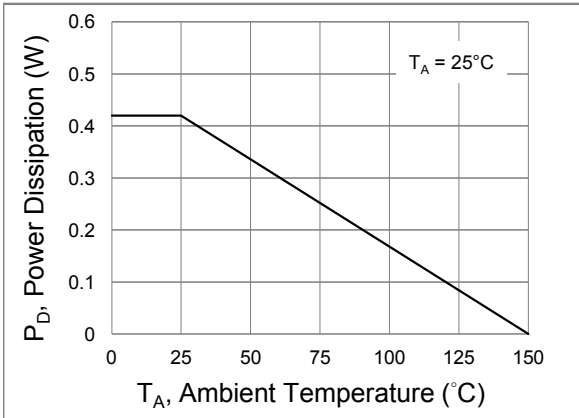


## BZT52-B2V4~BZT52-B75

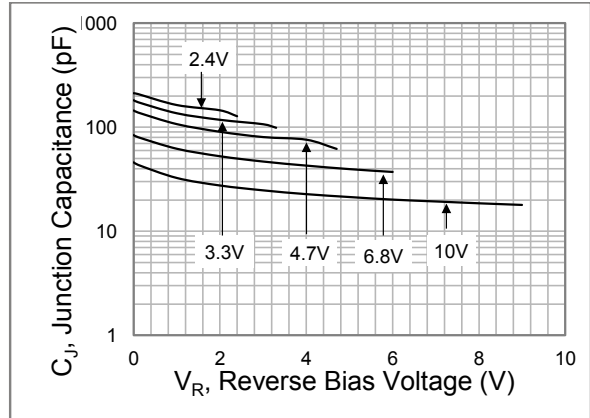
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
410 mWatts Zener Diodes										
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



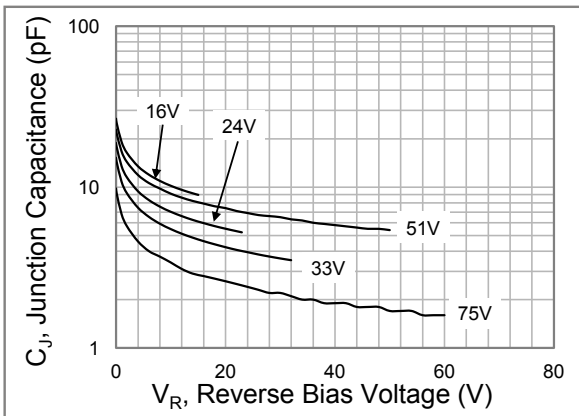
# BZT52-B2V4~BZT52-B75



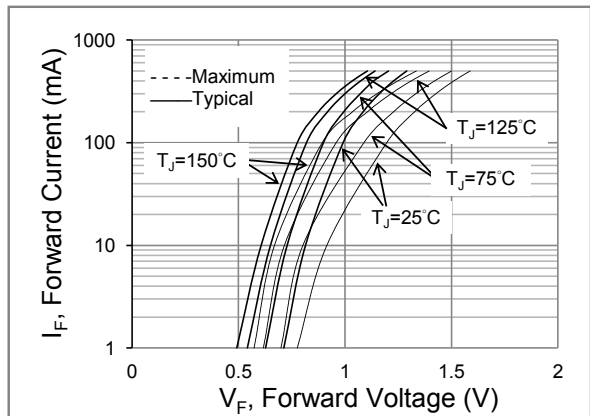
**Fig.1 Power Derating Curve**



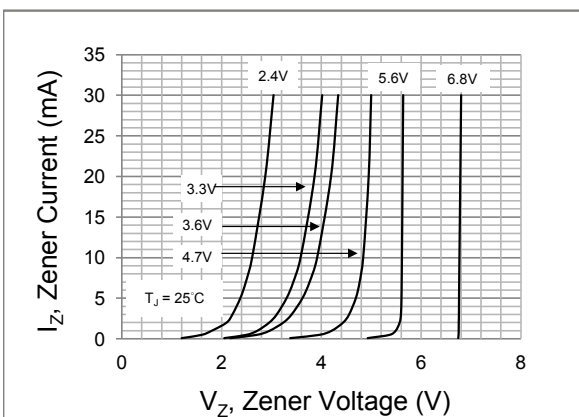
**Fig.2 Typical Junction Capacitance**



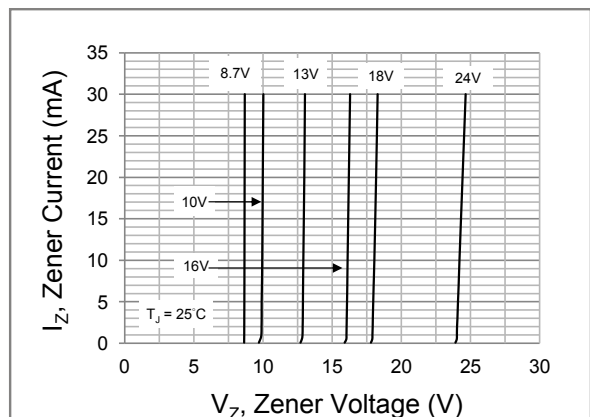
**Fig.3 Typical Junction Capacitance**



**Fig.4 Typical Forward Characteristics**



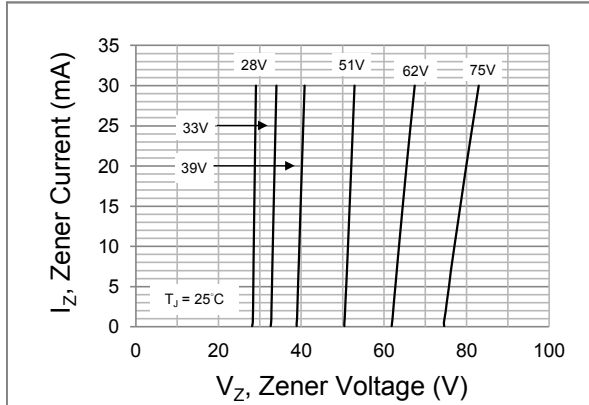
**Fig.5 Typical Zener Characteristics**



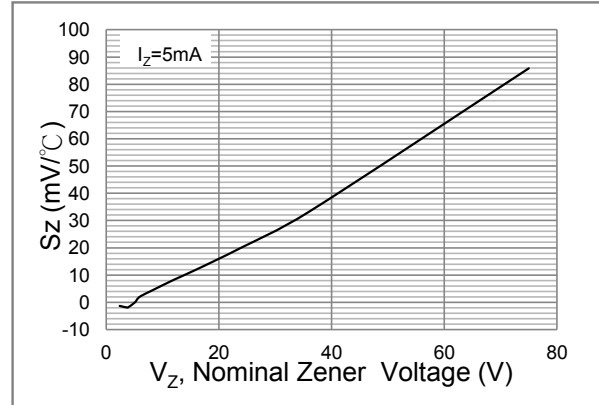
**Fig.6 Typical Zener Characteristics**



## BZT52-B2V4~BZT52-B75



**Fig.7 Typical Zener Characteristics**

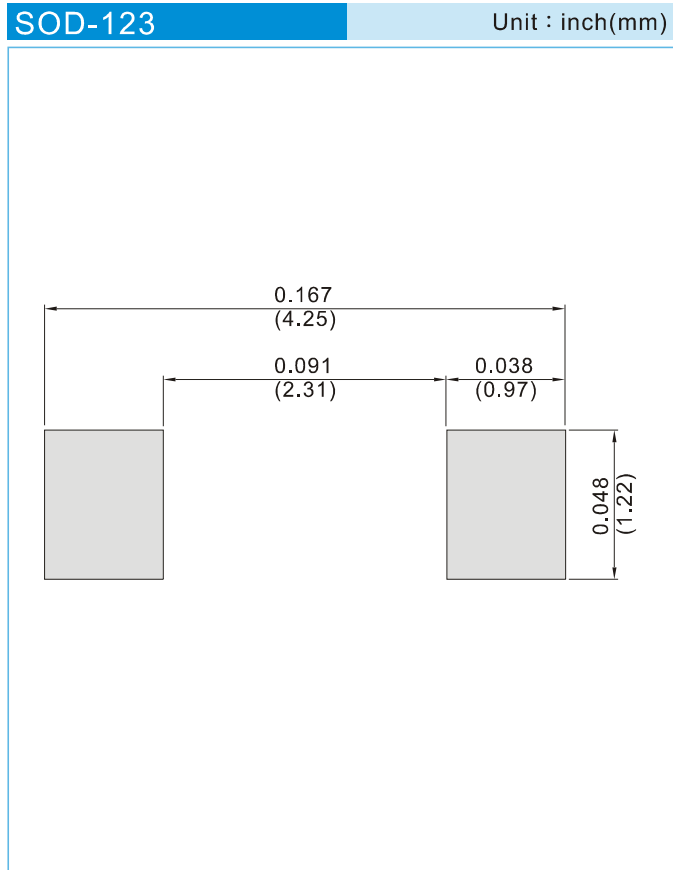


**Fig.8 Temperature coefficient as a function of working current; typical values**



# BZT52-B2V4~BZT52-B75

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



# BZT52-B2V4~BZT52-B75

## Part No\_packing code\_Version

BZT52-B2V4\_R1\_00001

BZT52-B2V4\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



## BZT52-B2V4~BZT52-B75

---

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.