



# BZT52-C2V4~BZT52-C75

## SURFACE MOUNT SILICON ZENER DIODES

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

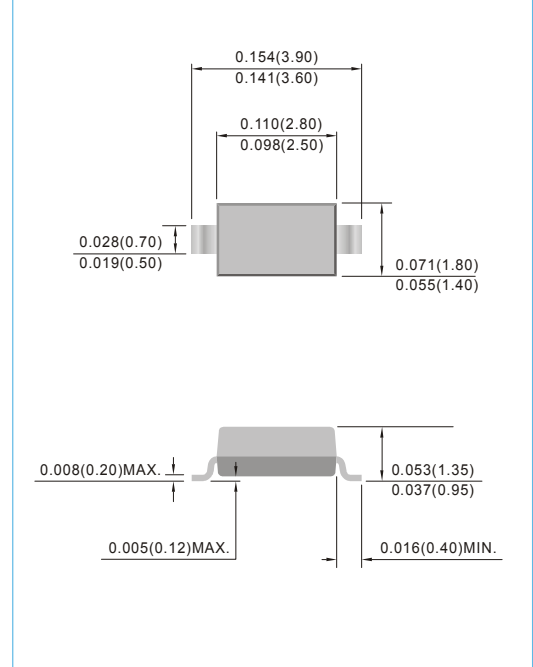
**SOD-123** Unit : inch(mm)

### 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 RoHS 2.0
- Green molding compound as per IEC 61249 standard

### 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

PARAMETER	SYMBOL	VALUE	UNITS
Maximum Power Dissipation (Note A) at 25°C	P <sub>D</sub>	410	mW
Typical Thermal Resistance	R <sub>JA</sub>	510	°C/W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub>	-55 to +150	°C

### NOTES:

- Mounted on a FR-4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
- Mounted on a FR-4 PCB, single-sided copper, mini pad.





# BZT52-C2V4~BZT52-C75

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	
<b>410 mWatts Zener Diodes</b>										
BZT52-C2V4	2.4	2.28	2.52	85	5.0	600	1.00	100	1.0	W1
BZT52-C2V7	2.7	2.57	2.84	83	5.0	600	1.00	75	1.0	W2
BZT52-C3	3.0	2.85	3.15	95	5.0	600	1.00	50	1.0	W3
BZT52-C3V3	3.3	3.14	3.47	95	5.0	600	1.00	25	1.0	W4
BZT52-C3V6	3.6	3.42	3.78	95	5.0	600	1.00	15	1.0	W5
BZT52-C3V9	3.9	3.71	4.10	95	5.0	600	1.00	10	1.0	W6
BZT52-C4V3	4.3	4.09	4.52	95	5.0	600	1.00	5.0	1.0	W7
BZT52-C4V7	4.7	4.47	4.94	78	5.0	500	1.00	5.0	1.0	W8
BZT52-C5V1	5.1	4.85	5.36	60	5.0	480	1.00	0.1	0.8	W9
BZT52-C5V6	5.6	5.32	5.88	40	5.0	400	1.00	0.1	1.0	WA
BZT52-C6V2	6.2	5.89	6.51	10	5.0	150	1.00	0.1	2.0	WB
BZT52-C6V8	6.8	6.46	7.14	8	5.0	80	1.00	0.1	3.0	WC
BZT52-C7V5	7.5	7.13	7.88	7	5.0	80	1.00	0.1	5.0	WD
BZT52-C8V2	8.2	7.79	8.61	7	5.0	80	1.00	0.1	6.0	WE
BZT52-C8V7	8.7	8.27	9.14	7	5.0	100	1.00	0.1	6.5	87C
BZT52-C9V1	9.1	8.65	9.56	10	5.0	100	1.00	0.1	7.0	WF
BZT52-C10	10	9.50	10.50	15	5.0	150	1.00	0.1	7.5	WG
BZT52-C11	11	10.45	11.55	20	5.0	150	1.00	0.1	8.5	WH
BZT52-C12	12	11.40	12.60	20	5.0	150	1.00	0.1	9.0	WI
BZT52-C13	13	12.35	13.65	25	5.0	170	1.00	0.1	10.0	WK
BZT52-C14	14	13.30	14.70	25	5.0	170	1.00	0.1	10.5	WJ
BZT52-C15	15	14.25	15.75	30	5.0	200	1.00	0.1	11.0	WL
BZT52-C16	16	15.20	16.80	40	5.0	200	1.00	0.1	12.0	WM
BZT52-C17	17	16.15	17.85	40	5.0	200	1.00	0.1	13.0	17C
BZT52-C18	18	17.10	18.90	50	5.0	225	1.00	0.1	14.0	WN
BZT52-C20	20	19.00	21.00	50	5.0	225	1.00	0.1	15.0	WO
BZT52-C22	22	20.90	23.10	55	5.0	250	1.00	0.1	17.0	WP
BZT52-C24	24	22.80	25.20	80	5.0	250	1.00	0.1	18.0	WR
BZT52-C27	27	25.65	28.35	80	5.0	300	1.00	0.1	20.0	WS
BZT52-C28	28	26.60	29.40	80	5.0	300	1.00	0.1	22.0	28C
BZT52-C30	30	28.50	31.50	80	5.0	300	1.00	0.1	22.5	WT
BZT52-C33	33	31.35	34.65	80	5.0	325	1.00	0.1	25.0	WU
BZT52-C36	36	34.20	37.80	90	5.0	350	1.00	0.1	27.0	WW
BZT52-C39	39	37.05	40.95	90	5.0	350	1.00	0.1	29.0	WX
BZT52-C43	43	40.85	45.15	100	5.0	375	1.00	0.1	32.0	WY
BZT52-C47	47	44.65	49.35	100	5.0	375	1.00	0.1	35.0	WZ
BZT52-C51	51	48.45	53.55	100	5.0	400	1.00	0.1	38.0	XA
BZT52-C56	56	53.20	58.80	135	2.5	1000	1.00	0.1	42.0	X2
BZT52-C62	62	58.90	65.10	150	2.5	1000	1.00	0.1	46.0	X3
BZT52-C68	68	64.60	71.40	200	2.5	1000	1.00	0.1	51.0	X4
BZT52-C75	75	71.25	78.75	250	2.5	1000	1.00	0.1	56.0	X5



# BZT52-C2V4~BZT52-C75



**Fig.1 Power Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Zener Breakdown**



**Fig.4 Typical Zener Breakdown**



**Fig.5 Typical Zener Breakdown**



# BZT52-C2V4~BZT52-C75

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



# BZT52-C2V4~BZT52-C75

## Part No\_packing code\_Version

BZT52-C2V4\_R1\_00001

BZT52-C2V4\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



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



## BZT52-C2V4~BZT52-C75

---

### 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.