

BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



VOLTAGE	2.4~75 Volts	POWER	200 mW	SOD-323	Marking and Polarity
FEATURES					
<ul style="list-style-type: none"> ■ Low Zener Impedance ■ Power Dissipation of 200mW ■ High Stability and High Reliability ■ Zener Voltage Tolerance: ± 5%(C Series) 					
MECHANICAL DATA				<p>Remark:</p> <ul style="list-style-type: none"> ①. xx=Modle code,xx=Wx~X5 ②. White band denotes cathode 	
Package: SOD-323					
Epoxy UL: 94V-0					
Weight: approx. 0.004g					

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Power Dissipation (Note1)	P _D	200	mW
Maximum instantaneous forward voltage@I _F =10mA (Note2)	V _F	1.0	V
Operating Temperature Range	T _{OPR}	-55~+150	°C
Storage temperature range	T _{STG}	-55~+150	°C
Thermal Resistance, Junction to Ambient Air	R _{θJA}	400 (Note1)	°C/W

- Notes: 1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
2. Pulse width < 10 ms

BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		V _z @I _{zt}			I _{zt}	Z _{zt} @I _{zt}	Z _{zk} @I _{zk}	I _{zk}	IR	VR
		Min(V)	Nom(V)	Max(V)	mA	Ω		mA	uA	V
BZT52C2V4S	WX	2.28	2.4	2.52	5	100	600	1.0	50	1.0
BZT52C2V7S	W1	2.57	2.7	2.84	5	100	600	1.0	20	1.0
BZT52C3V0S	W2	2.85	3.0	3.15	5	95	600	1.0	10	1.0
BZT52C3V3S	W3	3.14	3.3	3.47	5	95	600	1.0	5	1.0
BZT52C3V6S	W4	3.42	3.6	3.78	5	90	600	1.0	5	1.0
BZT52C3V9S	W5	3.71	3.9	4.10	5	90	600	1.0	3	1.0
BZT52C4V3S	W6	4.09	4.3	4.52	5	90	600	1.0	3	1.0
BZT52C4V7S	W7	4.47	4.7	4.94	5	80	500	1.0	3	2.0
BZT52C5V1S	W8	4.85	5.1	5.36	5	60	480	1.0	2	2.0
BZT52C5V6S	W9	5.32	5.6	5.88	5	40	400	1.0	1	2.0
BZT52C6V2S	WA	5.89	6.2	6.51	5	10	150	1.0	3	4.0
BZT52C6V8S	WB	6.46	6.8	7.14	5	15	80	1.0	2	4.0
BZT52C7V5S	WC	7.13	7.5	7.88	5	15	80	1.0	1	5.0
BZT52C8V2S	WD	7.79	8.2	8.61	5	15	80	1.0	0.7	5.0
BZT52C9V1S	WE	8.65	9.1	9.56	5	15	100	1.0	0.5	6.0
BZT52C10S	WF	9.50	10.0	10.50	5	20	150	1.0	0.2	7.0
BZT52C11S	WG	10.45	11.0	11.55	5	20	150	1.0	0.1	8.0
BZT52C12S	WH	11.40	12.0	12.60	5	25	150	1.0	0.1	8.0
BZT52C13S	WI	12.35	13.0	13.65	5	30	170	1.0	0.1	8.0
BZT52C15S	WJ	14.25	15.0	15.75	5	30	200	1.0	0.1	10.5
BZT52C16S	WK	15.20	16.0	16.80	5	40	200	1.0	0.1	11.2
BZT52C18S	WL	17.10	18.0	18.90	5	45	225	1.0	0.1	12.6
BZT52C20S	WM	19.00	20.0	21.00	5	55	225	1.0	0.1	14.0
BZT52C22S	WN	20.90	22.0	23.10	5	55	250	1.0	0.1	15.4
BZT52C24S	WO	22.80	24.0	25.20	5	70	250	1.0	0.1	16.8
BZT52C27S	WP	25.65	27.0	28.35	2	80	300	0.5	0.1	18.9
BZT52C30S	WQ	28.50	30.0	31.50	2	80	300	0.5	0.1	21.0
BZT52C33S	WR	31.35	33.0	34.65	2	80	325	0.5	0.1	23.1
BZT52C36S	WS	34.20	36.0	37.80	2	90	350	0.5	0.1	25.2
BZT52C39S	WT	37.05	39.0	40.95	2	130	350	0.5	0.1	27.3
BZT52C43S	WU	40.85	43.0	45.15	2	130	350	0.5	0.1	29.4
BZT52C47S	WV	44.65	47.0	49.35	2	170	1000	0.25	0.1	36.0
BZT52C51S	X1	48.45	51.0	53.55	2	180	1300	0.25	0.1	39.0
BZT52C56S	X2	53.20	56.0	58.80	2	200	1400	0.25	0.1	43.0
BZT52C62S	X3	58.90	62.0	65.10	2	225	1400	0.25	0.1	47.0
BZT52C68S	X4	64.60	68.0	71.40	2	240	1600	0.25	0.1	52.0
BZT52C75S	X5	71.25	75.0	78.75	2	265	1700	0.25	0.1	56.0

BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



RATING AND CHARACTERISTIC CURVES

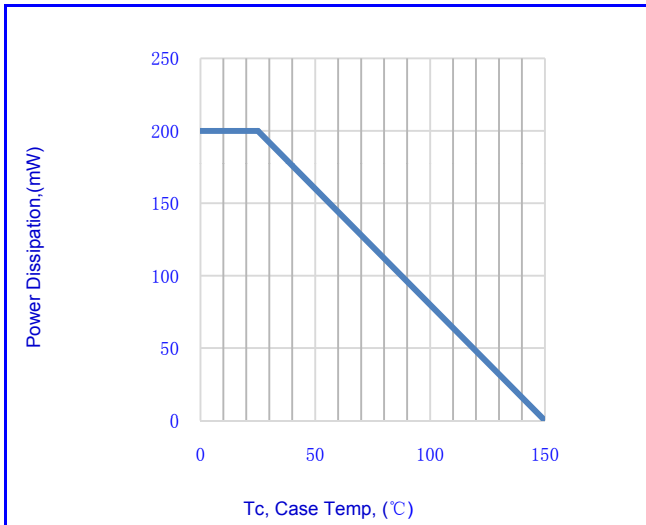


Fig.1-POWER DISSIPATION VS. AMBIENT TEMP.

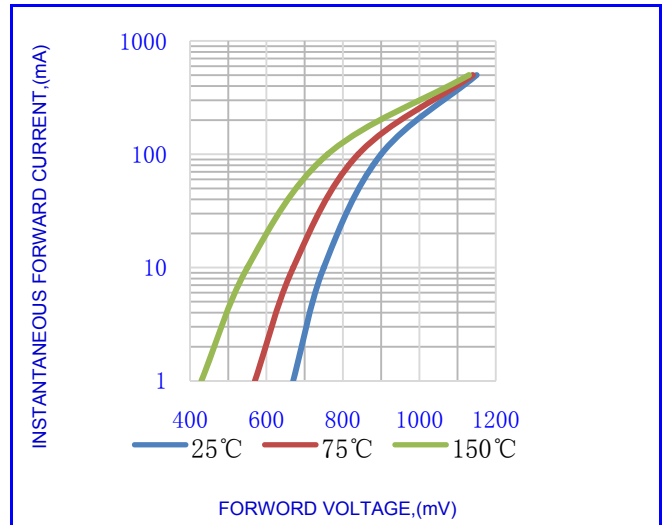


Fig.2- Forward characteristics

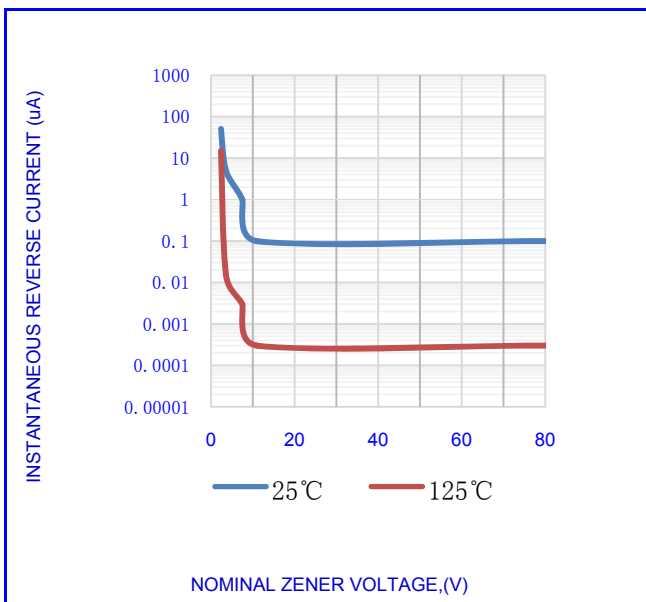


Fig.3- TYPICAL REVERSE CHARACTERISTICS

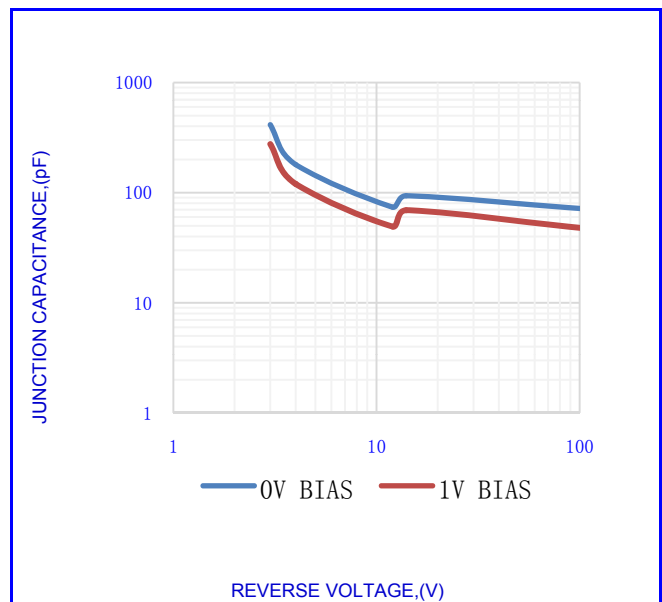


Fig.4- TYPICAL JUNCTION CAPACITANCE

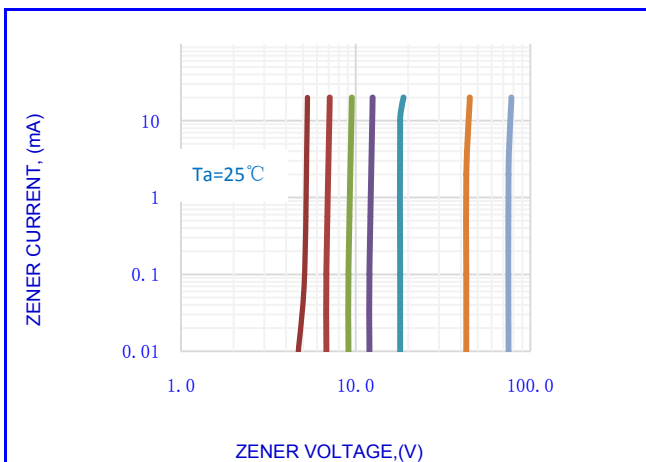


Fig.5-ZENER BREAKDOWN CHARACTERISTICS

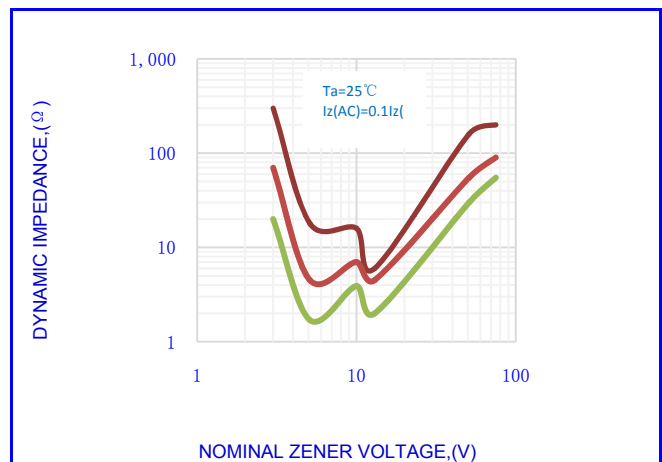


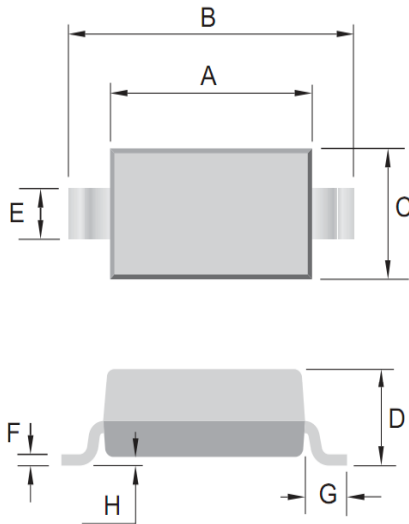
Fig.6-EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



OUTLINE DRAWINGS

SOD-323



OUTLINE DIMENSIONS						
Dim.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.600	-	1.800	0.063	-	0.071
B	2.400	-	2.700	0.094	-	0.106
C	1.200	-	1.400	0.047	-	0.055
D	-	-	1.000	-	-	0.039
E	0.250	-	0.350	0.010	-	0.014
F	0.080	-	0.150	0.003	-	0.006
G	-	0.475	-	-	0.019	-
H	-	-	0.120	-	-	0.005

MOUNTING PAD LAYOUT

SOD-323



OUTLINE DIMENSIONS						
Dim.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	--	2.900	--	--	0.114	--
B	--	0.500	--	--	0.020	--
C	--	1.440	--	--	0.057	--
D	--	0.730	--	--	0.029	--

Packing Information

Package	Pack	Reel Size (mm)	Quantity (pcs/reel)	Inner Box Size L×W×H(mm)	Carton Size L×W×H(mm)	Quantity (Inner Box/carton)
SOD-323	T/R	Φ180	3000	210×208×203	440×440×230	4

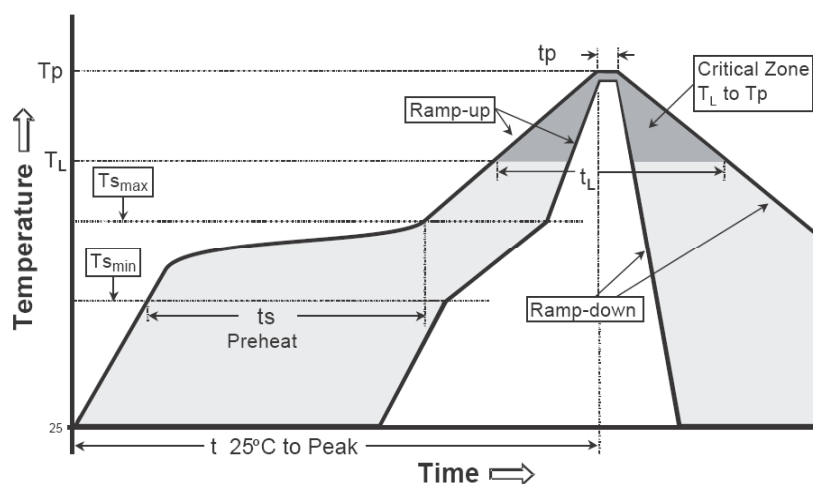
BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



Recommended wave soldering condition

Product	Peak Temperature	Soldering Time
Pb-free devices	260 +0/-5 °C	5 +1/-1 seconds

Recommended temperature profile for IR reflow



Profile feature	Sn-Pb eutectic Assembly	Pb-free Assembly
Average ramp-up rate (Tsmmax to Tp)	3°C/second max.	3°C/second max.
Preheat -Temperature Min(TS min) -Temperature Max(TS max) -Time(ts min to ts max)	100°C 150°C 60-120 seconds	150°C 200°C 60-180 seconds
Time maintained above: -Temperature (TL) - Time (tL)	183°C 60-150 seconds	217°C 60-150 seconds
Peak Temperature(TP)	240 +0/-5 °C	260 +0/-5 °C
Time within 5°C of actual peak temperature(tp)	10-30 seconds	20-40 seconds
Ramp down rate	6°C/second max.	6°C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

Note : All temperatures refer to topside of the package, measured on the package body surface.

BZT52C2V4S THRU BZT52C75S
PLASTIC-ENCAPSULATE ZENER DIODE



Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from niuhang electronics co., LTD.
- Niuhang Electronics co., LTD. reserves the rights to make changes of the content herein the document anytime without notification.
- Niuhang Electronics co., LTD. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Niuhang Electronics co., LTD. 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. Niuhang Electronics co., LTD. 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 Niuhang Electronics co., LTD. for any damages resulting from such improper use or sale.
- When the appearance of the product and chip size does not change, in order to product the customer. quality, change the internal structure and the production process niuhang can not notify

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Zener Diodes](#) category:

Click to view products by [NH](#) manufacturer:

Other Similar products are found below :

[RKZ13B2KG#P1](#) [DL5234B](#) [1N4682](#) [1N4693](#) [1N4732A](#) [1N4736A](#) [1N4750A](#) [1N4759ARL](#) [1N5241B](#) [1N5365B](#) [1N5369B](#) [1N747A](#)
[1N964B](#) [1N966B](#) [1N968B](#) [1N972B](#) [JANS1N4974US](#) [1N4692](#) [1N4702](#) [1N4704](#) [1N4711](#) [1N4714](#) [1N4745ARL](#) [1N4752ARL](#) [1N4760ARL](#)
[1N5221B](#) [1N5242BTR](#) [1N5350B](#) [1N5352B](#) [1N961BRR1](#) [1N964BRL](#) [RKZ5.1BKU#P6](#) [3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#)
[MMSZ5230BQ-13-F](#) [MMSZ5232BQ-13-F](#) [BZX84C7V5](#) [3SMAJ5945B-TP](#) [3SMAJ5947B-TP](#) [3SMBJ5941B-TP](#) [DZ2S240M0L](#) [SMAZ27-](#)
[TP](#) [ZMM5224B-7](#) [RD16UM-T1-A](#) [RD39S-T1-A](#) [RD10S-T1-A](#) [CDZT2R5.6B](#) [1N4762A G](#) [Z1SMA18](#) [JANTX1N4553B](#)