



# BZT52C2V0S THRU BZT52C75S

Zener Voltage - 2 to 75 Volts Peak Pulse Power - 0.2 W

## SURFACE MOUNT ZENER DIODE

### Features

- ◆ Total power dissipation: Max. 200mW.
- ◆ Wide zener reverse voltage range 2.0V to 75V.
- ◆ Small plastic package suitable for surface mounted design.
- ◆ Tolerance approximately  $\pm 5\%$

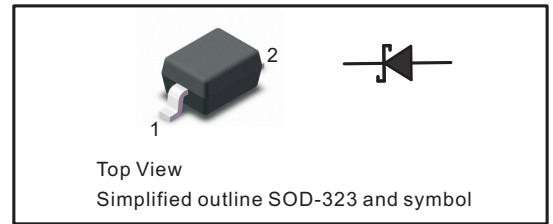


### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

### Mechanical Data

**Case** : JEDEC SOD-323 Molded plastic body  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Polarity symbol marking on body  
**Mounting Position** : Any  
**Weight** : 0.00019 ounce, 0.00548 grams



### Ordering Information

Type No.	Marking	Package Code	
BZT52C2V0S-BZT52C75S	See table 2	SOD-323	
<b>MAXIMUM RATING @ Ta=25°C unless otherwise specified</b>			
Parameter	Symbol	Value	Unit
Forward Voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power Dissipation	P <sub>d</sub>	200	mW
Typical thermal resistance junction to ambient <sup>(1)</sup>	R <sub>θJA</sub>	417	°C/W
Junction temperature	T <sub>J</sub>	-55-150	°C
Storage temperature range	T <sub>stg</sub>	-55-150	°C

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating

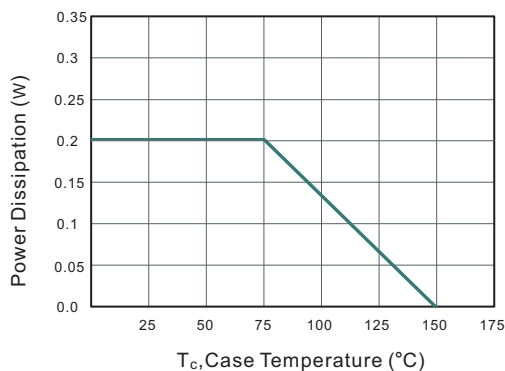
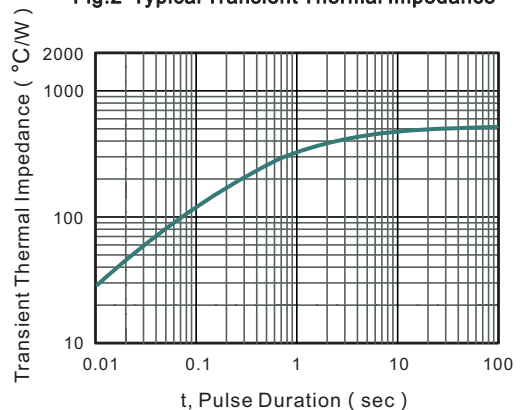


Fig.2 Typical Transient Thermal Impedance





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## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type	Marking	Zener Voltage Range <sup>(1)</sup>			I <sub>ZT</sub> (mA)	Dynamic Impedance Z <sub>ZT</sub> (at I <sub>ZT</sub> ) Max (Ω)	Reverse Current	
		V <sub>ZT</sub> (at I <sub>ZT</sub> )					I <sub>R</sub> Max (μA)	at V <sub>R</sub> (V)
		Min (V)	Nom (V)	Max (V)				
BZT52C2V0S	WY	1.8	2	2.15	5	100	120	0.5
BZT52C2V2S	WZ	2.08	2.2	2.33	5	100	120	0.7
BZT52C2V4S	WX	2.28	2.4	2.56	5	100	120	1
BZT52C2V7S	W1	2.5	2.7	2.9	5	110	120	1
BZT52C3V0S	W2	2.8	3	3.2	5	120	50	1
BZT52C3V3S	W3	3.1	3.3	3.5	5	130	20	1
BZT52C3V6S	W4	3.4	3.6	3.8	5	130	10	1
BZT52C3V9S	W5	3.7	3.9	4.1	5	130	5	1
BZT52C4V3S	W6	4	4.3	4.6	5	130	5	1
BZT52C4V7S	W7	4.4	4.7	5	5	130	2	1
BZT52C5V1S	W8	4.8	5.1	5.4	5	130	2	1.5
BZT52C5V6S	W9	5.2	5.6	6	5	80	1	2.5
BZT52C6V2S	WA	5.8	6.2	6.6	5	50	1	3
BZT52C6V8S	WB	6.4	6.8	7.2	5	30	0.5	3.5
BZT52C7V5S	WC	7	7.5	7.9	5	30	0.5	4
BZT52C8V2S	WD	7.7	8.2	8.7	5	30	0.5	5
BZT52C9V1S	WE	8.5	9.1	9.6	5	30	0.5	6
BZT52C10S	WF	9.4	10	10.6	5	30	0.1	7
BZT52C11S	WG	10.4	11	11.6	5	30	0.1	8
BZT52C12S	WH	11.4	12	12.7	5	35	0.1	9
BZT52C13S	WI	12.4	13	14.1	5	35	0.1	10
BZT52C15S	WJ	13.8	15	15.6	5	40	0.1	11
BZT52C16S	WK	15.3	16	17.1	5	40	0.1	12
BZT52C18S	WL	16.8	18	19.1	5	45	0.1	13
BZT52C20S	WM	18.8	20	21.2	5	50	0.1	15
BZT52C22S	WN	20.8	22	23.3	5	55	0.1	17
BZT52C24S	WO	22.8	24	25.6	5	60	0.1	19
BZT52C27S	WP	25.1	27	28.9	2	70	0.1	21
BZT52C30S	WQ	28	30	32	2	80	0.1	23
BZT52C33S	WR	31	33	35	2	80	0.1	25
BZT52C36S	WS	34	36	38	2	90	0.1	27
BZT52C39S	WT	37	39	41	2	100	0.1	30
BZT52C43S	WU	40	43	46	2	130	0.1	33
BZT52C47S	WV	44	47	50	2	150	0.1	36
BZT52C51S	WW	48	51	54	2	180	0.1	39
BZT52C56S	XW	52	56	60	2	200	0.1	43
BZT52C62S	6E	58	62	66	2	215	0.1	47
BZT52C68S	6F	64	68	72	2	240	0.1	52
BZT52C75S	6H	70	75	79	2	265	0.1	56

( 1 ) V<sub>ZT</sub> is tested with pulses (20 ms)



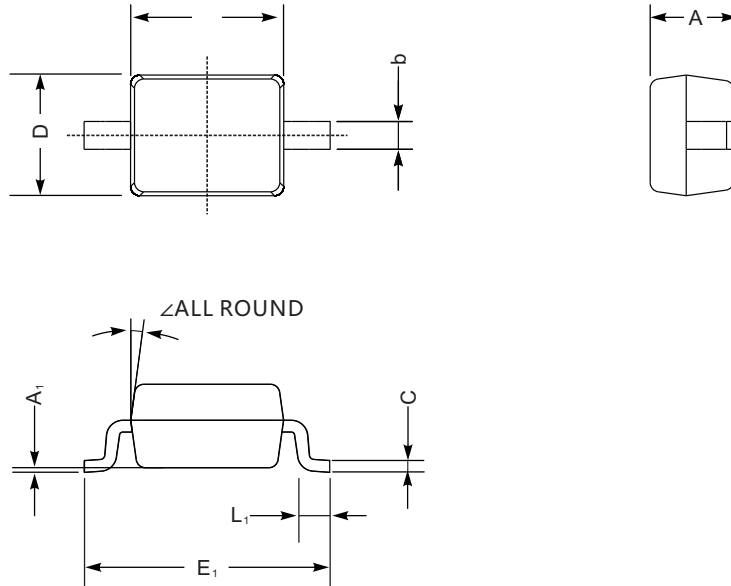
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## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

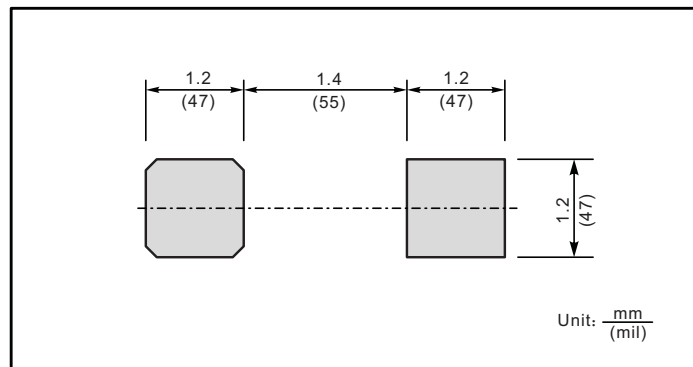
SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	$\angle$
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

### The recommended mounting pad size



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