

### FEATURES



- \* Ideal for surface mount applications
- \* Easy pick and place
- \* High temperature soldering guaranteed:  
260°C / 10 seconds at terminals

### MECHANICAL DATA

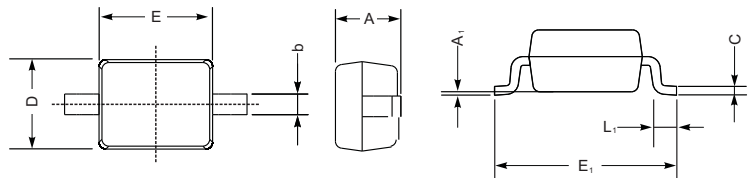
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

### VOLTAGE RANGE

2.4 to 43 Volts

200mW

#### SOD323



UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	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	—

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>tot</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 65 to + 150	°C

### Characteristics at T<sub>a</sub> = 25°C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>	625	°C/W
Forward Voltage at I <sub>F</sub> = 10 mA	V <sub>F</sub>	0.9	V

# BZT52C2V4S THRU BZT52C43S

Fig.1 Power Derating Curve

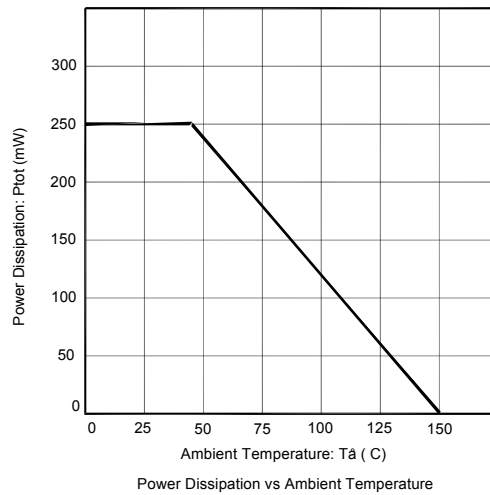
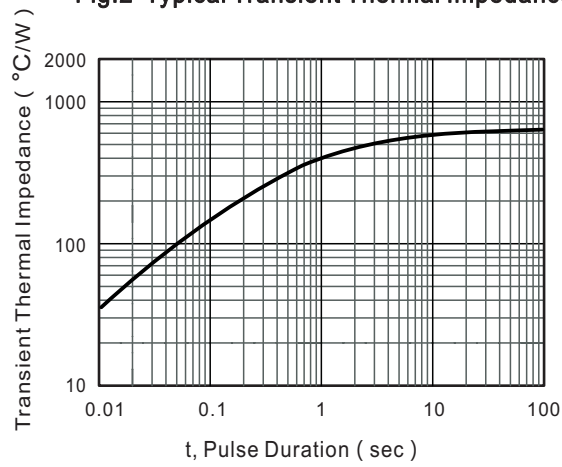


Fig.2 Typical Transient Thermal Impedance



# BZT52C2V4S THRU BZT52C43S

## Characteristics at Ta = 25°C

Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Impedance				Reverse Leakage Current	
		V <sub>znom</sub>	V <sub>ZT</sub>	at I <sub>ZT</sub>	Z <sub>ZT</sub>	at I <sub>ZT</sub>	Z <sub>ZK</sub>	at I <sub>ZK</sub>	I <sub>R</sub>	at V <sub>R</sub>
		V	V	mA	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
BZT52C2V4S	MX	2.4	2.2...2.6	5	100	5	600	1	50	1
BZT52C2V7S	W1	2.7	2.5...2.9	5	100	5	600	1	20	1
BZT52C3V0S	W2	3.0	2.8...3.2	5	95	5	600	1	10	1
BZT52C3V3S	W3	3.3	3.1...3.5	5	95	5	600	1	5	1
BZT52C3V6S	W4	3.6	3.4...3.8	5	90	5	600	1	5	1
BZT52C3V9S	W5	3.9	3.7...4.1	5	90	5	600	1	3	1
BZT52C4V3S	W6	4.3	4...4.6	5	90	5	600	1	3	1
BZT52C4V7S	W7	4.7	4.4...5	5	80	5	500	1	3	2
BZT52C5V1S	W8	5.1	4.8...5.4	5	60	5	480	1	2	2
BZT52C5V6S	W9	5.6	5.2...6	5	40	5	400	1	1	2
BZT52C6V2S	WA	6.2	5.8...6.6	5	10	5	150	1	3	4
BZT52C6V8S	WB	6.8	6.4...7.2	5	15	5	80	1	2	4
BZT52C7V5S	WC	7.5	7...7.9	5	15	5	80	1	1	5
BZT52C8V2S	WD	8.2	7.7...8.7	5	15	5	80	1	0.7	5
BZT52C9V1S	WE	9.1	8.5...9.6	5	15	5	100	1	0.5	6
BZT52C10S	WF	10	9.4...10.6	5	20	5	150	1	0.2	7
BZT52C11S	WG	11	10.4...11.6	5	20	5	150	1	0.1	8
BZT52C12S	WH	12	11.4...12.7	5	25	5	150	1	0.1	8
BZT52C13S	WI	13	12.4...14.1	5	30	5	170	1	0.1	8
BZT52C15S	WJ	15	13.8... 15.	5	30	5	200	1	0.1	10.5
BZT52C16S	WK	16	15.3...17.1	5	40	5	200	1	0.1	11.2
BZT52C18S	WL	18	16.8... 19.1	5	45	5	225	1	0.1	12.6
BZT52C20S	WM	20	18.8...21.2	5	55	5	225	1	0.1	14
BZT52C22S	WN	22	20.8...23.3	5	55	5	250	1	0.1	15.4
BZT52C24S	WO	24	22.8...25.6	5	70	5	250	1	0.1	16.8
BZT52C27S	WP	27	25.1...28.9	2	80	2	300	0.5	0.1	18.9
BZT52C30S	WQ	30	28...32	2	80	2	300	0.5	0.1	21
BZT52C33S	WR	33	31...35	2	80	2	325	0.5	0.1	23.1
BZT52C36S	WS	36	34...38	2	90	2	350	0.5	0.1	25.2
BZT52C39S	WT	39	37...41	2	130	2	350	0.5	0.1	27.3
BZT52C43S	WU	43	40...46	2.5	130	2	500	1	2	33

NOTE: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>.  
 2. Short duration test pulse used to minimize self-heating effect.  
 3. f = 1kHz.

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