



# BZT52C2V4 THRU BZT52C51

## Surface Mount Zener Diode



Voltage Range  
2.4 to 51 Volts  
500m Watts Power Dissipation

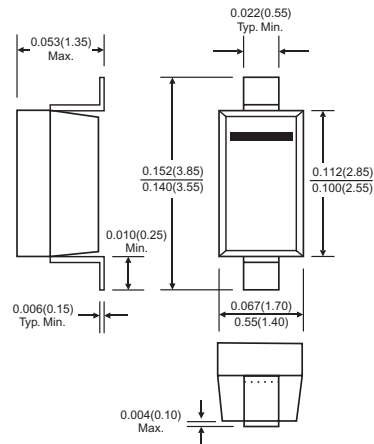
### Features

- ✧ Planar die construction
- ✧ 500 mW power dissipation on ceramic PCB
- ✧ Ideally suited for automated assembly processes
- ✧ General purpose, medium current

### Mechanical Data

- ✧ Case: SOD-123, Plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode band
- ✧ Marking: Date Code and Type Code or Date Code only
- ✧ Type Code: See table on Page 2
- ✧ Weight: 0.01 grams (approx.)

### SOD-123



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

Type Number	Symbol	Value	Units
Forward Voltage @ IF = 10mA	V <sub>F</sub>	0.9	V
Power Dissipation (Note 1)	P <sub>d</sub>	500	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	305	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

Notes: 1. Device Mounted on Ceramic PCB, 7.6mm x 9.4mm x 0.87mm with Pad Areas 25mm<sup>2</sup>.

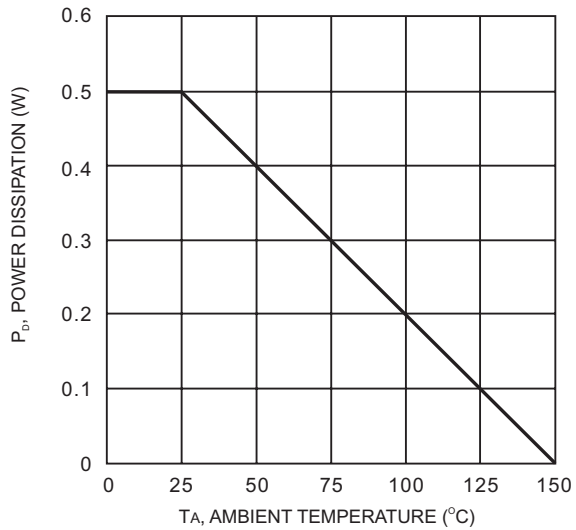
2. Tested with Pulses. Period = 5ms, Pulse Width = 300us.

3. When Provided, Otherwise, Parts are Provided with Date Code only, and Type Number Identifications Appears on reel only.

4. f = 1KHz.

RATINGS AND CHARACTERISTIC CURVES (BZT52C2V4 THRU BZT52C51)

FIG.1- POWER DISSIPATION VS AMBIENT TEMPERATURE



ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Device (Note 1)	Device Marking Code (Note 3)	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 4)			Maximum Reverse Current		Typical Temperature Coefficient @ IZTC mV / °C		Test Current IZTC mA
		Vz @ Izt			IZT mA	ZZT @ IZT Ohms	ZZK @ IZK		IR uA	VR V	Min	Max	
		Nom (V)	Min (V)	Max (V)			Ohms	mA					
BZT52C2V4	W1	2.4	2.2	2.6	5.0	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7	W2	2.7	2.5	2.9	5.0	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0	W3	3.0	2.8	3.2	5.0	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3	W4	3.3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	-3.5	0	5
BZT52C3V6	W5	3.6	3.4	3.8	5.0	90	600	1.0	5.0	1.0	-3.5	0	5
BZT52C3V9	W6	3.9	3.7	4.1	5.0	90	600	1.0	3.0	1.0	-3.5	0	5
BZT52C4V3	W7	4.3	4.0	4.6	5.0	90	600	1.0	3.0	1.0	-3.5	0	5
BZT52C4V7	W8	4.7	4.4	5.0	5.0	80	500	1.0	3.0	2.0	-3.5	0.2	5
BZT52C5V1	W9	5.1	4.8	5.4	5.0	60	480	1.0	2.0	2.0	-2.7	1.2	5
BZT52C5V6	WA	5.6	5.2	6.0	5.0	40	400	1.0	1.0	2.0	-2.0	2.5	5
BZT52C6V2	WB	6.2	5.8	6.6	5.0	10	150	1.0	3.0	4.0	0.4	3.7	5
BZT52C6V8	WC	6.8	6.4	7.2	5.0	15	80	1.0	2.0	4.0	1.2	4.5	5
BZT52C7V5	WD	7.5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	2.5	5.3	5
BZT52C8V2	WE	8.2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	3.2	6.1	5
BZT52C9V1	WF	9.1	8.5	9.6	5.0	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10	WG	10	9.4	10.6	5.0	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11	WH	11	10.4	11.6	5.0	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12	WI	12	11.4	12.7	5.0	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13	WK	13	12.4	14.1	5.0	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15	WL	15	13.8	15.6	5.0	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16	WM	16	15.3	17.1	5.0	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18	WN	18	16.8	19.1	5.0	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20	WO	20	18.8	21.2	5.0	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22	WP	22	20.8	23.3	5.0	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24	WR	24	22.8	25.6	5.0	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27	WS	27	25.1	28.9	2.0	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30	WT	30	28	32	2.0	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33	WU	33	31	35	2.0	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36	WW	36	34	38	2.0	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39	WX	39	37	41	2.0	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43	WY	43	40	46	5.0	100	700	1.0	0.1	32	10.0	12.0	5
BZT52C47	WZ	47	44	50	5.0	100	750	1.0	0.1	35	10.0	12.0	5
BZT52C51	WX1	51	48	54	5.0	100	750	1.0	0.1	38	10.0	12.0	5

- Notes: 1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm.  
 2. Tested with pulses, 300us pulse width, period = 5ms.  
 3. When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.  
 4. f = 1KHz.