



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**BZT52C2V4  
THRU  
BZT52C51**

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ZENER DIODES**

**FEATURES**

- \* Planar Die construction
- \* Zener Voltages from 2.4V - 51V
- \* 500mW Power Dissipation
- \* Ideally Suited for Automated Assembly Processes

**MECHANICAL DATA**

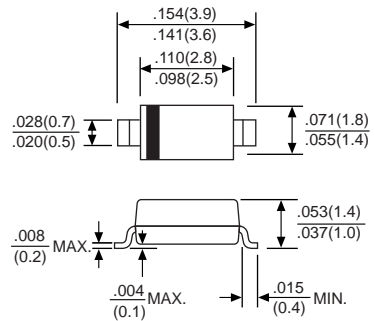
- \* Case: Molded Plastic
- \* Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- \* Polarity: See Diagram Below
- \* Mounting position: Any
- \* Weight: 0.008 gram Approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



SOD-123



Dimensions in inches(millimeters)

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Maximum Power Dissipation @TA=25°C	P <sub>tot</sub>	500	mW
Maximum Forward Voltage @IF=10mA	V <sub>F</sub>	0.9	Volts
Typical Thermal Resistance	R <sub>θJA</sub>	305	°C/W
Operating and Storage Temperature	T <sub>J</sub> ,T <sub>stg</sub>	-55 to +150	°C

Note: 1. Suffix "S" indicates "SOD-323" package. (e.g.: BZT52C2V4S,.....,BZT52C51S)  
2. Normal Tolerance ±5%

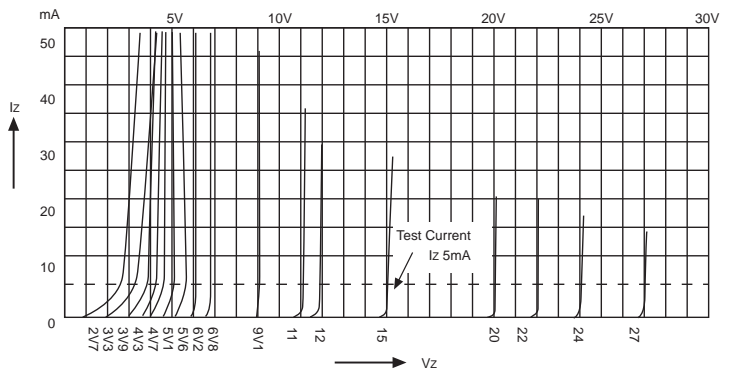
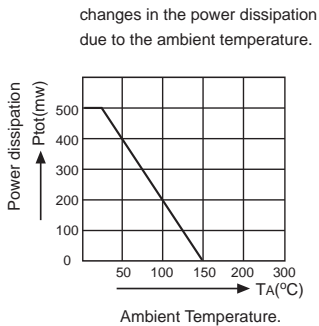
# RATING AND CHARACTERISTIC CURVES (BZT52C SERIES)

TYPE	Nominal Zener Voltage $V_Z @ I_{ZT}$		Zener Test Current $I_{ZT}$ mA	Maximum Zener Impedance			Maximum Reverse Leakage Current	
	Min	Max		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$ mA	$I_R @ V_R$	
				Ohms	Ohms		$\mu A$	Volts
BZT52C2V4	2.2	2.6	5	100	600	1	150	1.0
BZT52C2V7	2.5	2.9	5	100	600	1	50	1.0
BZT52C3V0	2.8	3.2	5	95	600	1	20	1.0
BZT52C3V3	3.1	3.5	5	95	600	1	10	1.0
BZT52C3V6	3.4	3.8	5	90	600	1	5.0	1.0
BZT52C3V9	3.7	4.1	5	90	600	1	5.0	1.0
BZT52C4V3	4.0	4.6	5	90	600	1	3.0	1.0
BZT52C4V7	4.4	5.0	5	80	500	1	3.0	2.0
BZT52C5V1	4.8	5.4	5	60	480	1	2.0	2.0
BZT52C5V6	5.2	6.0	5	40	400	1	1.0	2.0
BZT52C6V2	5.8	6.6	5	10	150	1	3.0	4.0
BZT52C6V8	6.4	7.2	5	15	80	1	2.0	4.0
BZT52C7V5	7.0	7.9	5	15	80	1	1.0	5.0
BZT52C8V2	7.7	8.7	5	15	80	1	0.7	5.0
BZT52C9V1	8.5	9.6	5	15	100	1	0.5	6.0
BZT52C10	9.4	10.6	5	20	150	1	0.2	7.0
BZT52C11	10.4	11.6	5	20	150	1	0.1	8.0
BZT52C12	11.4	12.7	5	25	150	1	0.1	8.0
BZT52C13	12.4	14.1	5	30	170	1	0.1	8.0
BZT52C15	13.8	15.6	5	30	200	1	0.1	10.5
BZT52C16	15.3	17.1	5	40	200	1	0.1	11.2
BZT52C18	16.8	19.1	5	45	225	1	0.1	12.6
BZT52C20	18.8	21.2	5	55	225	1	0.1	14.0
BZT52C22	20.8	23.3	5	55	250	1	0.1	15.4
BZT52C24	22.8	25.6	5	70	250	1	0.1	16.8
BZT52C27	25.1	28.9	5	80	300	0.5	0.1	18.9
BZT52C30	28.0	32.0	5	80	300	0.5	0.1	21.0
BZT52C33	31.0	35.0	5	80	325	0.5	0.1	23.1
BZT52C36	34.0	38.0	5	90	350	0.5	0.1	25.2
BZT52C39	37.0	41.0	5	130	350	0.5	0.1	27.3
BZT52C43	40.0	46.0	5	100	700	1	0.1	32.0
BZT52C47	44.0	50.0	5	100	750	1	0.1	35.0
BZT52C51	48.0	54.0	5	100	750	1	0.1	38.0

NOTE: Standard Zener Voltage Tolerance  $\pm 5\%$

## Breakdown characteristics

BZT52-SERIES



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