



DC COMPONENTS CO., LTD.  
RECTIFIER SPECIALISTS

BZT52C2V4  
THRU  
BZT52C39

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ZENER DIODES

FEATURES

- \* Planar Die construction
- \* Zener Voltages from 2.4V - 39V
- \* 410mW Power Dissipation
- \* Ideally Suited for Automated Assembly Processes

MECHANICAL DATA

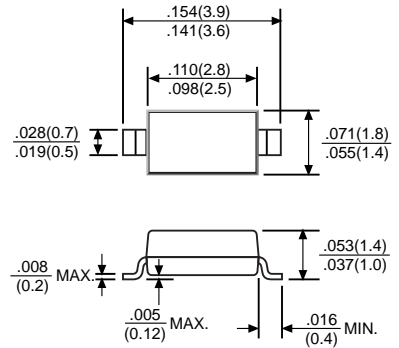
- \* Case: Molded Plastic
- \* Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- \* Polarity: See Diagram Below
- \* Mounting position: Any
- \* Weight: 0.008 gram Approx.

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"			
Power Dissipation (Notes 1) at Tamb=25°C	Ptot	410	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	IFSM	2.0	Amps
Maximum Forward Voltage at IF=100mA	VF	1.2	Volts
Operating and Storage Temperature	TJ, Tstg	-55 to + 150	°C

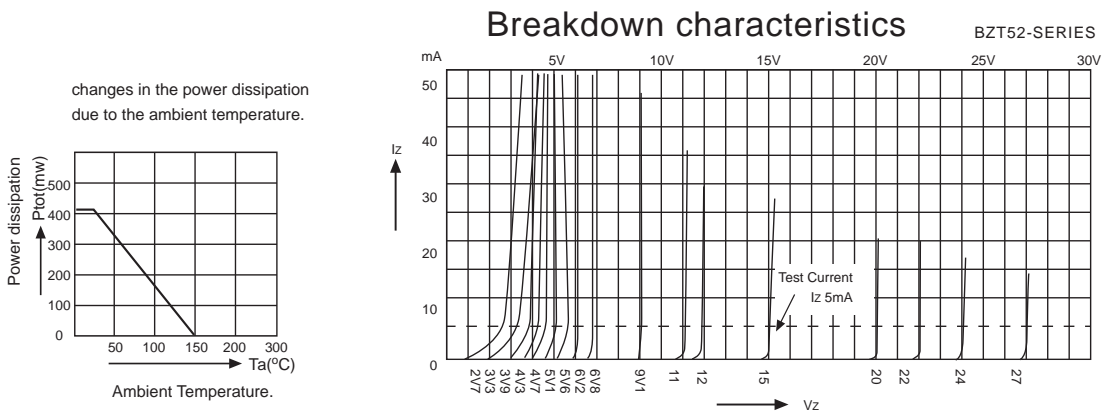
Notes: 1. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

## RATING AND CHARACTERISTIC CURVES (BZT52C SERIES)

TYPE	Nominal Zener Voltage $V_Z @ I_{ZT}$		Zener Test Current $I_{ZT}$	Maximum Zener Impedance		$I_{ZK}$	Maximum Reverse Leakage Current		Typical Temperature Coefficient	Max. Zener Current $I_{ZM} @ T_A$	Marking Code
	Min	Max		$Z_{ZT} @ I_{ZT}$	$Z_{ZT} @ I_{ZK}$		$I_R @ V_R$				
			mA	Ohms	Ohms	mA	$\mu A$	Volts	% / °C	mA	
BZT52C2V4	2.28	2.56	5	85	600	1	100	1.0	-0.075	-	W1
BZT52C2V7	2.5	2.9	5	83	500	1	75	1.0	-0.065	134	W2
BZT52C3V0	2.8	3.2	5	95	500	1	50	1.0	-0.060	118	W3
BZT52C3V3	3.1	3.5	5	95	500	1	25	1.0	-0.055	109	W4
BZT52C3V6	3.4	3.8	5	95	500	1	15	1.0	-0.055	100	W5
BZT52C3V9	3.7	4.1	5	95	500	1	10	1.0	-0.050	92	W6
BZT52C4V3	4.0	4.6	5	95	500	1	5	1.0	-0.035	84	W7
BZT52C4V7	4.4	5.0	5	78	500	1	5	1.0	-0.015	76	W8
BZT52C5V1	4.8	5.4	5	60	480	1	0.1	0.8	+0.005	67	W9
BZT52C5V6	5.2	6.0	5	40	400	1	0.1	1.0	+0.020	59	WA
BZT52C6V2	5.8	6.6	5	10	200	1	0.1	2.0	+0.030	54	WB
BZT52C6V8	6.4	7.2	5	8	150	1	0.1	3.0	+0.045	49	WC
BZT52C7V5	7.0	7.9	5	7	50	1	0.1	5.0	+0.050	44	WD
BZT52C8V2	7.7	8.7	5	7	50	1	0.1	6.0	+0.055	40	WE
BZT52C9V1	8.5	9.6	5	10	50	1	0.1	7.0	+0.065	36	WF
BZT52C10	9.4	10.6	5	15	70	1	0.1	7.5	+0.070	33	WG
BZT52C11	10.4	11.6	5	20	70	1	0.1	8.5	+0.075	30	WH
BZT52C12	11.4	12.7	5	20	90	1	0.1	9.0	+0.080	28	WI
BZT52C13	12.4	14.1	5	25	110	1	0.1	10	+0.080	25	WK
BZT52C15	13.8	15.6	5	30	110	1	0.1	11	+0.090	23	WL
BZT52C16	15.3	17.1	5	40	170	1	0.1	12	+0.090	20	WM
BZT52C18	16.8	19.1	5	50	170	1	0.1	14	+0.090	18	WN
BZT52C20	18.8	21.2	5	50	220	1	0.1	15	+0.090	17	WO
BZT52C22	20.8	23.3	5	55	220	1	0.1	17	+0.090	16	WP
BZT52C24	22.8	25.6	5	80	220	1	0.1	18	+0.090	13	WR
BZT52C27	25.1	28.9	5	80	250	1	0.1	20	+0.090	12	WS
BZT52C30	28	32	5	80	250	1	0.1	22.5	+0.090	10	WT
BZT52C33	31	35	5	80	250	1	0.1	25	+0.090	9	WU
BZT52C36	34	38	5	90	250	1	0.1	27	+0.090	9	WW
BZT52C39	37	41	5	90	300	1	0.1	29	+0.110	8	WX

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



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