



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**BZX55C2V4**

**THRU**

**BZX55C51**

**TECHNICAL SPECIFICATIONS OF GLASS SILICON ZENER DIODES**

**FEATURES**

- \* Voltage Range: 2.2V to 51V
- \* Double slug type construction

**MECHANICAL DATA**

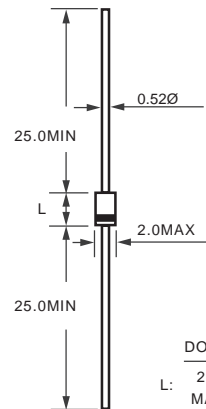
- \* Case: Glass sealed case
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.13 gram

**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%.



DO-34/DO-35



Dimensions in millimeters

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characterisitics"			
Power Dissipation at Tamb=25°C	Ptot	500 <sup>(1)</sup>	mW
Junction Temperature	Tj	175	°C
Storage Temperature Range	Tstg	-55 to + 175	°C
Thermal Resistance Junction to Ambient Air	RthA	- - 0.3 <sup>(1)</sup>	K/mW Typ. Min. Max.
Forward Voltage at IF=100mA	VF	- - 1	Volts Typ. Min. Max.

1)Valid Provided that leads are kept at ambient temperature at a distance of 8 mm from case.

NOTE: 1.Standard Zener Voltage Tolerance ± 5%

2.Suffix "M" stands for "DO-34" package.(e.g.:BZX55C2V4M, BZX55C39M)

# RATING AND CHARACTERISTIC CURVES (BZX55C SERIES)

## BZX55C-SERIES

Device Type	Nominal zener Voltage Vz at Izt*	Test Current Izt	Maximum Zener Impedance		Typical Temperature coefficient	Maximum Reverse Leakage Current		Maximum Regulator Current IzM
			ZzT at Izt	Zzk at Izk=1mA		IR	Test-Voltage suffix B	
	Volts	mA	$\Omega$	$\Omega$	%/°C	$\mu$ A	Volts	mA
BZX55-C2V2	2.09-2.31	5	85	600	-0.070	50	1.0	165
BZX55-C2V4	2.28-2.56	5	85	600	-0.070	50	1.0	150
BZX55-C2V7	2.5-2.9	5	85	600	-0.070	10	1.0	135
BZX55-C3V0	2.8-3.2	5	85	600	-0.070	4	1.0	125
BZX55-C3V3	3.1-3.5	5	85	600	-0.065	2	1.0	115
BZX55-C3V6	3.4-3.8	5	85	600	-0.060	2	1.0	105
BZX55-C3V9	3.7-4.1	5	85	600	-0.050	2	1.0	95
BZX55-C4V3	4.0-4.6	5	75	600	-0.025	1	1.0	90
BZX55-C4V7	4.4-5.0	5	60	600	-0.010	0.5	1.0	85
BZX55-C5V1	4.8-5.4	5	35	550	+0.015	0.1	1.0	80
BZX55-C5V6	5.2-6.0	5	25	450	+0.025	0.1	1.0	70
BZX55-C6V2	5.8-6.6	5	10	200	+0.035	0.1	2.0	64
BZX55-C6V8	6.4-7.2	5	8	150	+0.045	0.1	3.0	58
BZX55-C7V5	7.0-7.9	5	7	50	+0.050	0.1	5.0	53
BZX55-C8V2	7.7-8.7	5	7	50	+0.050	0.1	6.0	47
BZX55-C9V1	8.5-9.6	5	10	50	+0.060	0.1	7.0	43
BZX55-C10	9.4-10.6	5	15	70	+0.070	0.1	7.5	40
BZX55-C11	10.4-11.6	5	20	70	+0.070	0.1	8.5	36
BZX55-C12	11.4-12.7	5	20	90	+0.070	0.1	9.0	32
BZX55-C13	12.4-14.1	5	26	110	+0.070	0.1	10	29
BZX55-C15	13.8-15.6	5	30	110	+0.070	0.1	11	27
BZX55-C16	15.3-17.1	5	40	170	+0.070	0.1	12	24
BZX55-C18	16.8-19.1	5	50	170	+0.070	0.1	14	21
BZX55-C20	18.8-21.2	5	55	220	+0.070	0.1	15	20
BZX55-C22	20.8-23.3	5	55	220	+0.070	0.1	17	18
BZX55-C24	22.8-25.6	5	80	220	+0.080	0.1	18	16
BZX55-C27	25.1-28.9	5	80	220	+0.080	0.1	20	14
BZX55-C30	28-32	5	80	220	+0.080	0.1	22	13
BZX55-C33	31-35	5	80	220	+0.080	0.1	24	12
BZX55-C36	34-38	5	80	220	+0.080	0.1	27	11
BZX55-C39	37-41	2.5	90	500	+0.080	0.1	30	10
BZX55-C43	40-46	2.5	90	600	+0.080	0.1	33	9.2
BZX55-C47	44-50	2.5	110	700	+0.080	0.1	36	8.5
BZX55-C51	48-54	2.5	125	700	+0.080	0.1	39	7.5

STANDARD VOLTAGE TOLERANCE IS  $\pm 5\%$  AND:

- SUFFIX "A" FOR  $\pm 1\%$
- SUFFIX "B" FOR  $\pm 2\%$
- SUFFIX "C" FOR  $\pm 5\%$
- SUFFIX "D" FOR  $\pm 20\%$

ZENER DIODE MARKING SYSTEM:

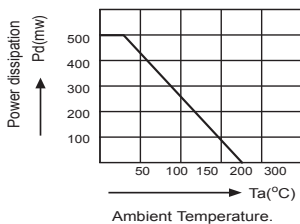
- DO-34 DO-35
- Z 3V9 BZX55 C3V9
- 1\* 2\* 1\* 2\*

1\* Type NO.

2\* Vz of zener diode, V code is instead of decimal point. e.g., 3V6=3.6V

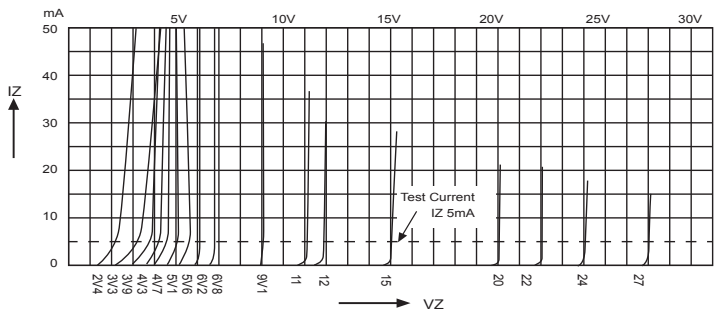
#Measured with pulses Tp=20m Sec.

changes in the power dissipation due to the ambient temperature.



### Breakdown characteristic

BZX55-SERIES



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