

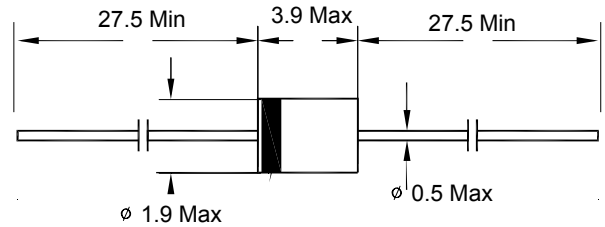
## ZENER DIODES

### FEATURES

Silicon planar power zener diodes

The zener voltages are graded according to the international E 24 standard. Standard zener voltage tolerance is  $\pm 5\%$ . Replace suffix "C" with "B" for  $\pm 2\%$ , with "A" for  $\pm 1\%$ . other voltage tolerance and other zener voltage are available upon request.

### BZX55C2V0---BZX55C100



DO-35 Dimensions in millimeters

### MECHANICAL DATA

Case: DO-35, Glass Case

Terminals: Solderable per MIL-STD-202, method 208

Polarity: Cathode band

Marking: Type number

Approx. Weight: 0.13 grams.

### ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	500 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	°C
Storage Temperature Range	$T_S$	- 55 to + 175	°C

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

### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	0.3 <sup>1)</sup>	K/mW
Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	1	V

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

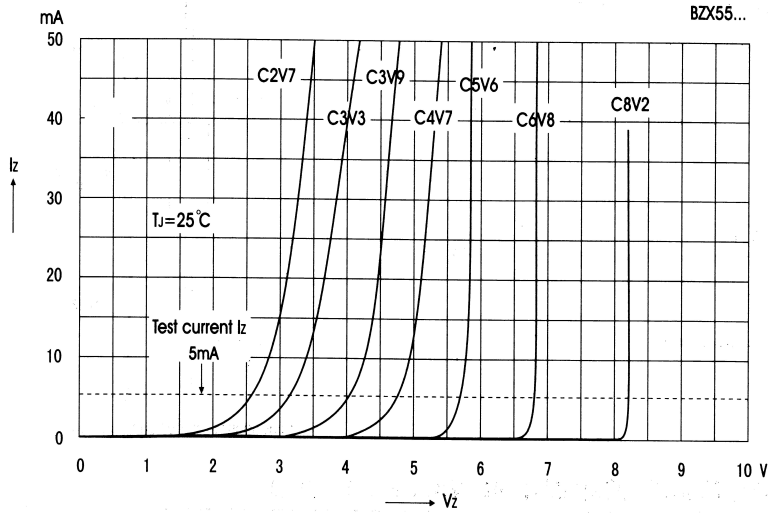
### BZX55C2V0---BZX55C100

Type	Zener Voltage Range			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage
	V <sub>znom</sub> V	I <sub>ZT</sub> mA	V <sub>ZT</sub> V	r <sub>ZT</sub> Max.( )	r <sub>ZJK</sub> Max.( )	I <sub>ZK</sub> mA	T <sub>a</sub> =25°C Max.(μA)	T <sub>a</sub> =125°C Max.(μA)	I <sub>R</sub> at V <sub>R</sub> V	TYKZ %/K
BZX55C2V0	2	5	1.8...2.15	85	600	1	100	200	1	-0.09...-0.06
BZX55C2V2	2.2	5	2.08...2.33	85	600	1	75	160	1	-0.09...-0.06
BZX55C2V4	2.4	5	2.28...2.56	85	600	1	50	100	1	-0.09...-0.06
BZX55C2V7	2.7	5	2.5...2.9	85	600	1	10	50	1	-0.09...-0.06
BZX55C3V0	3	5	2.8...3.2	85	600	1	4	40	1	-0.08...-0.05
BZX55C3V3	3.3	5	3.1...3.5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V6	3.6	5	3.4...3.8	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V9	3.9	5	3.7...4.1	85	600	1	2	40	1	-0.08...-0.05
BZX55C4V3	4.3	5	4...4.6	75	600	1	1	20	1	-0.06...-0.03
BZX55C4V7	4.7	5	4.4...5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55C5V1	5.1	5	4.8...5.4	35	550	1	0.1	2	1	-0.02...+0.02
BZX55C5V6	5.6	5	5.2...6	25	450	1	0.1	2	1	-0.05...+0.05
BZX55C6V2	6.2	5	5.8...6.6	10	200	1	0.1	2	2	0.03...0.06
BZX55C6V8	6.8	5	6.4...7.2	8	150	1	0.1	2	3	0.03...0.07
BZX55C7V5	7.5	5	7...7.9	7	50	1	0.1	2	5	0.03...0.07
BZX55C8V2	8.2	5	7.7...8.7	7	50	1	0.1	2	6.2	0.03...0.08
BZX55C9V1	9.1	5	8.5...9.6	10	50	1	0.1	2	6.8	0.03...0.09
BZX55C10	10	5	9.4...10.6	15	70	1	0.1	2	7.5	0.03...0.1
BZX55C11	11	5	10.4...11.6	20	70	1	0.1	2	8.2	0.03...0.11
BZX55C12	12	5	11.4...12.7	20	90	1	0.1	2	9.1	0.03...0.11
BZX55C13	13	5	12.4...14.1	26	110	1	0.1	2	10	0.03...0.11
BZX55C15	15	5	13.8...15.6	30	110	1	0.1	2	11	0.03...0.11
BZX55C16	16	5	15.3...17.1	40	170	1	0.1	2	12	0.03...0.11
BZX55C18	18	5	16.8...19.1	50	170	1	0.1	2	13	0.03...0.11
BZX55C20	20	5	18.8...21.2	55	220	1	0.1	2	15	0.03...0.11
BZX55C22	22	5	20.8...23.3	55	220	1	0.1	2	16	0.04...0.12
BZX55C24	24	5	22.8...25.6	80	220	1	0.1	2	18	0.04...0.12
BZX55C27	27	5	25.1...28.9	80	220	1	0.1	2	20	0.04...0.12
BZX55C30	30	5	28...32	80	220	1	0.1	2	22	0.04...0.12
BZX55C33	33	5	31...35	80	220	1	0.1	2	24	0.04...0.12
BZX55C36	36	5	34...38	80	220	1	0.1	2	27	0.04...0.12
BZX55C39	39	2.5	37...41	90	500	0.5	0.1	5	30	0.04...0.12
BZX55C43	43	2.5	40...46	90	500	0.5	0.1	5	33	0.04...0.12
BZX55C47	47	2.5	44...50	110	600	0.5	0.1	5	36	0.04...0.12
BZX55C51	51	2.5	48...54	125	700	0.5	0.1	10	39	0.04...0.12
BZX55C56	56	2.5	52...60	135	700	0.5	0.1	10	43	0.04...0.12
BZX55C62	62	2.5	58...66	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55C68	68	2.5	64...72	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55C75	75	2.5	70...79	250	1000	0.5	0.1	10	56	0.04...0.12
BZX55C82	82	2.5	77...87	300	1500	0.25	0.1	10	62	0.05...0.12
BZX55C91	91	1	85...96	450	2000	0.1	0.1	10	68	0.05...0.12
BZX55C100	100	1	94...106	450	5000	0.1	0.1	10	75	0.05...0.12

NOTE: Measured with pulses Tp=20m

**BZX55C2V0---BZX55C100** Typical Characteristics

**BREAKDOWN CHARACTERISTICS**  
**T<sub>J</sub>=CONSTANT(PULSED)**



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