

### ZENER DIODES

POWER DISSIPATION: 500 mW

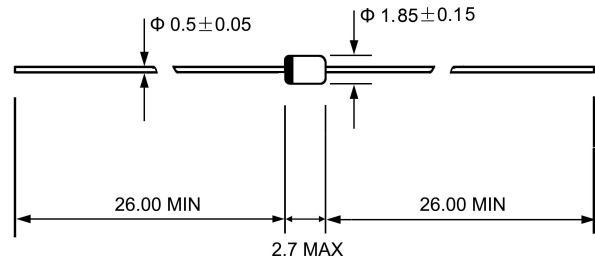
#### FEATURES

- ◇ 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  $\pm 2\%$ , Replace suffix "C" with "A" for  $\pm 1\%$ . other voltage tolerance and other zener voltage are available upon request.

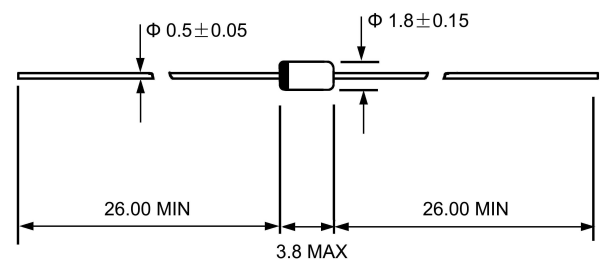
#### MECHANICAL DATA

- ◇ Case: DO-35, Glass Case
- ◇ Terminals: Solderable per MIL-STD-202, method 208
- ◇ Polarity: Cathode band
- ◇ Marking: Type number
- ◇ Approx. Weight: 0.13 grams.

#### DO-34(GLASS)



#### DO-35(GLASS)



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener current (see Table "Characteristics")			
Power dissipation @ $T_{amb}=25^{\circ}\text{C}$	$P_{tot}$	500 <sup>(1)</sup>	mW
Junction temperature	$T_J$	175	°C
Storage temperature range	$T_s$	-55---+175	°C

	SYMBOL	MIN	TYP	MAX	UNIT
Thermal resistance junction to ambient	$R_{\theta JA}$	—	—	300 <sup>(1)</sup>	°C/W
Forward voltage at $I_F=100\text{mA}$	$V_F$	—	—	1.0	V

NOTES: (1) Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

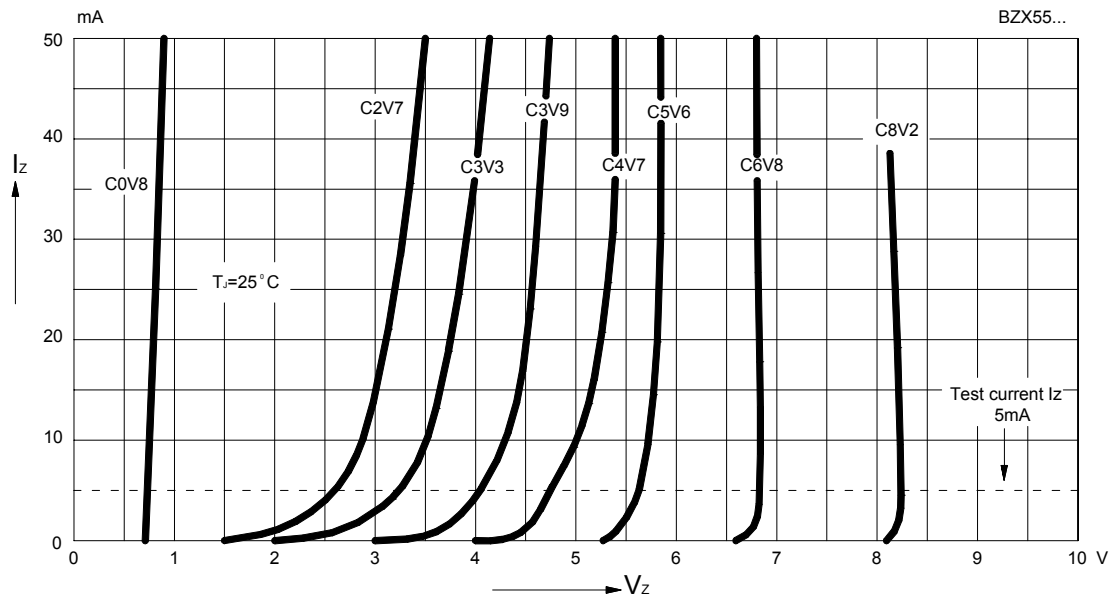
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# ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

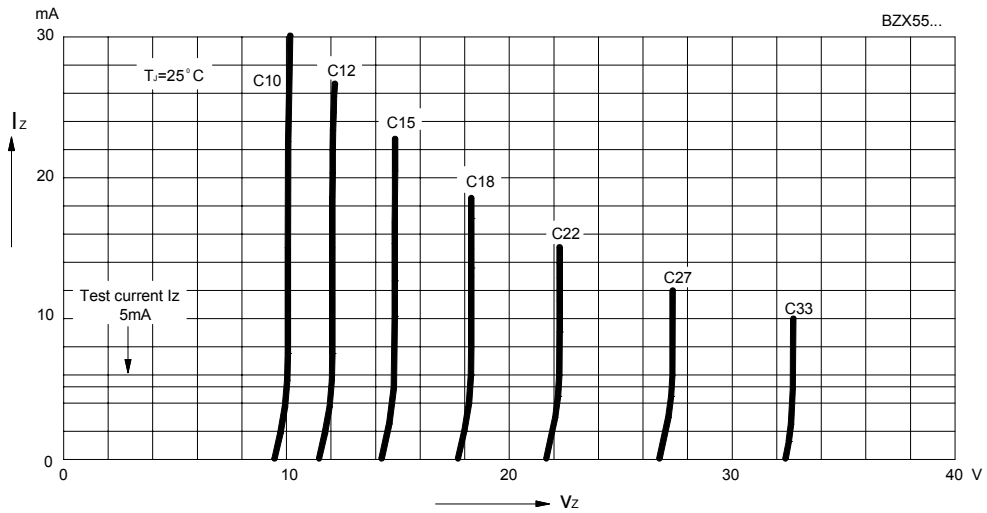
Type	Zener Voltage Range		Dynamic Resistance		Test Current	Temperature Coefficient		Reverse Leakage Current			Test Current	
	V <sub>Z</sub> @I <sub>ZT</sub>		r <sub>zT</sub> @I <sub>ZT</sub> f=1KHz	r <sub>zK</sub> @I <sub>ZK</sub> f=1KHz	I <sub>ZT</sub>	αV <sub>Z</sub>		I <sub>R</sub> @ T <sub>A</sub> =25°C	I <sub>R</sub> @ T <sub>A</sub> =150°C	@V <sub>R</sub>	I <sub>ZK</sub>	
	V		Ω		m A	%K		μA			V	mA
	Min.	Max.				Min.	Max.					
BZX55C2V4	2.28	2.56	85	600	5.0	-0.090	-0.060	50	100	1.0	1.0	
BZX55C2V7	2.5	2.9	85	600	5.0	-0.090	-0.060	10	50	1.0	1.0	
BZX55C3V0	2.8	3.2	85	600	5.0	-0.080	-0.050	4.0	40	1.0	1.0	
BZX55C3V3	3.1	3.5	85	600	5.0	-0.080	-0.050	2.0	40	1.0	1.0	
BZX55C3V6	3.4	3.8	85	600	5.0	-0.080	-0.050	2.0	40	1.0	1.0	
BZX55C3V9	3.7	4.1	85	600	5.0	-0.080	-0.050	2.0	40	1.0	1.0	
BZX55C4V3	4.0	4.6	75	600	5.0	-0.060	-0.030	1.0	20	1.0	1.0	
BZX55C4V7	4.4	5.0	60	600	5.0	-0.050	0.020	0.5	10	1.0	1.0	
BZX55C5V1	4.8	5.4	35	550	5.0	-0.020	0.020	0.1	2.0	1.0	1.0	
BZX55C5V6	5.2	6.0	25	450	5.0	-0.050	0.050	0.1	2.0	1.0	1.0	
BZX55C6V2	5.8	6.6	10	200	5.0	0.030	0.060	0.1	2.0	2.0	1.0	
BZX55C6V8	6.4	7.2	8.0	150	5.0	0.030	0.070	0.1	2.0	3.0	1.0	
BZX55C7V5	7.0	7.9	7.0	50	5.0	0.030	0.070	0.1	2.0	5.0	1.0	
BZX55C8V2	7.7	8.7	7.0	50	5.0	0.030	0.080	0.1	2.0	6.2	1.0	
BZX55C9V1	8.5	9.6	10	50	5.0	0.030	0.090	0.1	2.0	6.8	1.0	
BZX55C10	9.4	10.6	15	70	5.0	0.030	0.1	0.1	2.0	7.5	1.0	
BZX55C11	10.4	11.6	20	70	5.0	0.030	0.11	0.1	2.0	8.2	1.0	
BZX55C12	11.4	12.7	20	90	5.0	0.030	0.11	0.1	2.0	9.1	1.0	
BZX55C13	12.4	14.1	26	110	5.0	0.030	0.11	0.1	2.0	10	1.0	
BZX55C15	13.8	15.6	30	110	5.0	0.030	0.11	0.1	2.0	11	1.0	
BZX55C16	15.3	17.1	40	170	5.0	0.030	0.11	0.1	2.0	12	1.0	
BZX55C18	16.8	19.1	50	170	5.0	0.030	0.11	0.1	2.0	13	1.0	
BZX55C20	18.8	21.2	55	220	5.0	0.030	0.11	0.1	2.0	15	1.0	
BZX55C22	20.8	23.3	55	220	5.0	0.040	0.12	0.1	2.0	16	1.0	
BZX55C24	22.8	25.6	80	220	5.0	0.040	0.12	0.1	2.0	18	1.0	
BZX55C27	25.1	28.9	80	220	5.0	0.040	0.12	0.1	2.0	20	1.0	
BZX55C30	28	32	80	220	5.0	0.040	0.12	0.1	2.0	22	1.0	
BZX55C33	31	35	80	220	5.0	0.040	0.12	0.1	2.0	24	1.0	
BZX55C36	34	38	80	220	5.0	0.040	0.12	0.1	2.0	27	1.0	
BZX55C39	37	41	90	500	2.5	0.040	0.12	0.1	5.0	30	0.5	
BZX55C43	40	46	90	600	2.5	0.040	0.12	0.1	5.0	33	0.5	
BZX55C47	44	50	110	700	2.5	0.040	0.12	0.1	5.0	36	0.5	
BZX55C51	48	54	125	700	2.5	0.040	0.12	0.1	10	39	0.5	
BZX55C56	52	60	135	1000	2.5	0.040	0.12	0.1	10	43	0.5	
BZX55C62	58	66	150	1000	2.5	0.040	0.12	0.1	10	47	0.5	
BZX55C68	64	72	200	1000	2.5	0.040	0.12	0.1	10	51	0.5	
BZX55C75	70	79	250	1500	2.5	0.040	0.12	0.1	10	56	0.5	
BZX55C82	77	87	300	2000	2.5	0.040	0.12	0.1	10	62	0.5	

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**FIG.1 – BREAKDOWN CHARACTERISTICS**



**FIG.2 – BREAKDOWN CHARACTERISTICS**



**FIG.3 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE**

