SEMICONDUCTOR

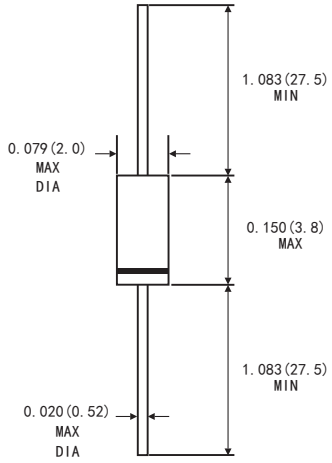
BZX55-C0V8 THRU BZX55-C200

0.5W SILICON PLANAR ZENER DIODES

FEATURES

- The zener voltage are graded according to the international E24 standard. Other voltage tolerances and higher zener voltages are on request
- High temperature soldering guaranteed: 260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: DO-35 glass case
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.13 gram

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES) (T_A=25℃)

	Symbols	*Value*	*Units*
Zener current see table "Characteristics"			
Power dissipation at T_A=50℃	P_{tot}	500[1)]	mW
Junction temperature	T_J	175	℃
Storage temperature range	T_{STG}	-65 to+175	℃
1) Valid provided that a distance of 8mm from case is kept at ambient temperature			

ELECTRICAL CHARACTERISTICS (T_A=25℃)

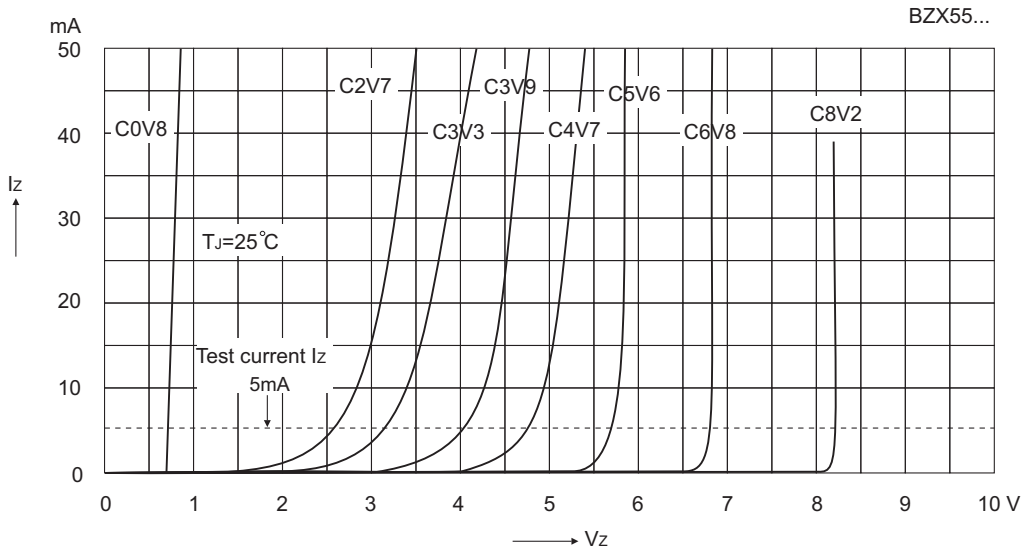
	Symbols	*Min*	*Typ*	*Max*	*Units*
Thermal resistance junction to ambient	$R_{\theta JA}$			300[1)]	K/W
Forward voltage at I_F=100mA	V_F			1.0	V
1) Valid provided that a distance of 8mm from case is kept at ambient temperature					

BZX55... SILICON PLANAR ZENER DIODES

Type	Zener Voltage range [1]			Dynamic resistance			Reverse leakage current			Temp Coefficient of zener voltage
	V_{ZNOM}	I_{ZT} for V_{ZT}		r_{ZJt} and r_{ZJK} at I_{ZK}			I_R and I_R[2] at V_R			TK_{VZ}
	V	mA	V	Ω	Ω	mA	μA	μA	V	%/K
BZX 55/C 0V8[3]	0.8	5	0.73...0.83	<8	<50	1	--	--	--	-0.26...-0.23
BZX 55/C 2V0	2.0	5	1.80...2.15	<85	<600	1	<100	<200	1	-0.09...-0.06
BZX 55/C 2V2	2.2	5	2.08...2.33	<85	<600	1	<75	<160	1	-0.09...-0.06
BZX 55/C 2V4	2.4	5	2.28...2.56	<85	<600	1	<50	<100	1	-0.09...-0.06
BZX 55/C 2V7	2.7	5	2.5...2.9	<85	<600	1	<10	<50	1	-0.09...-0.06
BZX 55/C 3V0	3.0	5	2.8...3.2	<85	<600	1	<4	<40	1	-0.08...-0.05
BZX 55/C 3V3	3.3	5	3.1...3.5	<85	<600	1	<2	<40	1	-0.08...-0.05
BZX 55/C 3V6	3.6	5	3.4...3.8	<85	<600	1	<2	<40	1	-0.08...-0.05
BZX 55/C 3V9	3.9	5	3.7...4.1	<85	<600	1	<2	<40	1	-0.08...-0.05
BZX 55/C 4V3	4.3	5	4.0...4.6	<75	<600	1	<1	<20	1	-0.06...-0.03
BZX 55/C 4V7	4.7	5	4.4...5.0	<60	<600	1	<0.5	<10	1	-0.05...+0.02
BZX 55/C 5V1	5.1	5	4.8...5.4	<35	<550	1	<0.1	<2	1	-0.02...+0.02
BZX 55/C 5V6	5.6	5	5.2...6.0	<25	<450	1	<0.1	<2	1	-0.05...+0.05
BZX 55/C 6V2	6.2	5	5.8...6.6	<10	<200	1	<0.1	<2	2	0.03...0.06
BZX 55/C 6V8	6.8	5	6.4...7.2	<8	<150	1	<0.1	<2	3	0.03...0.07
BZX 55/C 7V5	7.5	5	7.0...7.9	<7	<50	1	<0.1	<2	5	0.03...0.07
BZX 55/C 8V2	8.2	5	7.7...8.7	<7	<50	1	<0.1	<2	6.2	0.03...0.08
BZX 55/C 9V1	9.1	5	8.5...9.6	<10	<50	1	<0.1	<2	6.8	0.03...0.09
BZX 55/C 10	10	5	9.4...10.6	<15	<70	1	<0.1	<2	7.5	0.03...0.1
BZX 55/C 11	11	5	10.4...11.6	<20	<70	1	<0.1	<2	8.2	0.03...0.11
BZX 55/C 12	12	5	11.4...12.7	<20	<90	1	<0.1	<2	9.1	0.03...0.11
BZX 55/C 13	13	5	12.4...14.1	<26	<110	1	<0.1	<2	10	0.03...0.11
BZX 55/C 15	15	5	13.8...15.6	<30	<110	1	<0.1	<2	11	0.03...0.11
BZX 55/C 16	16	5	15.3...17.1	<40	<170	1	<0.1	<2	12	0.03...0.11
BZX 55/C 18	18	5	16.8...19.1	<50	<170	1	<0.1	<2	13	0.03...0.11
BZX 55/C 20	20	5	18.8...21.2	<55	<220	1	<0.1	<2	15	0.03...0.11
BZX 55/C 22	22	5	20.8...23.3	<55	<220	1	<0.1	<2	16	0.04...0.12
BZX 55/C 24	24	5	22.8...25.6	<80	<220	1	<0.1	<2	18	0.04...0.12
BZX 55/C 27	27	5	25.1...28.9	<80	<220	1	<0.1	<2	20	0.04...0.12
BZX 55/C 30	30	5	28...32	<80	<220	1	<0.1	<2	22	0.04...0.12
BZX 55/C 33	33	5	31...35	<80	<220	1	<0.1	<2	24	0.04...0.12
BZX 55/C 36	36	5	34...38	<80	<220	1	<0.1	<2	27	0.04...0.12
BZX 55/C 39	39	2.5	37...41	<90	<500	0.5	<0.1	<5	30	0.04...0.12
BZX 55/C 43	43	2.5	40...46	<90	<500	0.5	<0.1	<5	33	0.04...0.12
BZX 55/C 47	47	2.5	44...50	<110	<600	0.5	<0.1	<5	36	0.04...0.12
BZX 55/C 51	51	2.5	48...54	<125	<700	0.5	<0.1	<10	39	0.04...0.12
BZX 55/C 56	56	2.5	52...60	<135	<700	0.5	<0.1	<10	43	0.04...0.12
BZX 55/C 62	62	2.5	58...66	<150	<1000	0.5	<0.1	<10	47	0.04...0.12
BZX 55/C 68	68	2.5	64...72	<200	<1000	0.5	<0.1	<10	51	0.04...0.12
BZX 55/C 75	75	2.5	70...79	<250	<1000	0.5	<0.1	<10	56	0.04...0.12
BZX 55/C 82	82	2.5	77...87	<300	<1500	0.25	<0.1	<10	62	0.05...0.12
BZX 55/C 91	91	1	85...96	<450	<2000	0.1	<0.1	<10	68	0.05...0.12
BZX 55/C 100	100	1	94...106	<450	<5000	0.1	<0.1	<10	75	0.05...0.12
BZX 55/C 110	110	1	104...116	<600	<5000	0.1	<0.1	<10	82	0.05...0.12
BZX 55/C 120	120	1	114...127	<800	<5500	0.1	<0.1	<10	91	0.05...0.12
BZX 55/C 130	130	1	124...141	<950	<6000	0.1	<0.1	<10	100	0.05...0.12
BZX 55/C 150	150	1	138...156	<1250	<6500	0.1	<0.1	<10	110	0.05...0.12
BZX 55/C 160	160	1	153...171	<1400	<7000	0.1	<0.1	<10	120	0.05...0.12
BZX 55/C 180	180	1	168...191	<1700	<8500	0.1	<0.1	<10	130	0.05...0.12
BZX 55/C 200	200	1	188...212	<2000	<10000	0.1	<0.1	<10	150	0.05...0.12

1) Tested with pulses tp=20ms
2) Test condition Ta=125°C □
3) The BZX55-C0V8 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode lead to the negative pole.

BREAKDOWN CHARACTERISTICS AT TJ= CONSTANT (PULSED)



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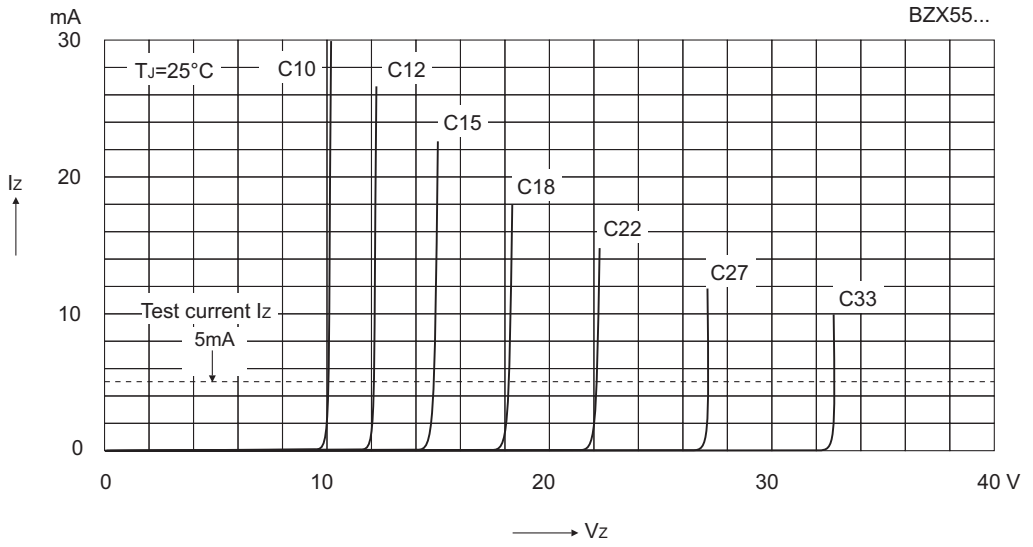

POWER DERATING CURVE