



SEMICONDUCTOR

BZX55-C0V8 THRU BZX55-C200

0.5W SILICON PLANAR ZENER DIODES

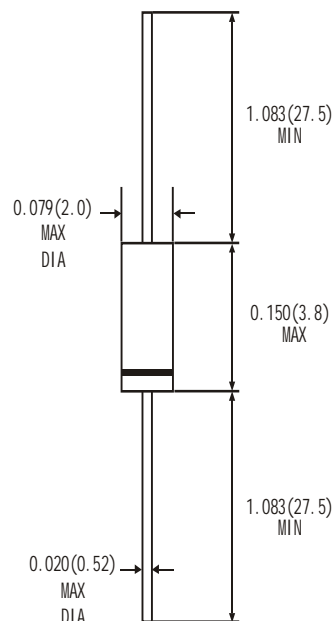
FEATURES

- The zener voltage are graded according to the international E24 standard. Other voltage tolerance and higher zener voltage on request

MECHANICAL DATA

- Case: D0 -35 glass case
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.13 gram

D0 -35



Dimensions in inches and (in millimeters)

ABSOLUTE MAXIMUM RATINGS (LIMITING VALUES) (T_A = 25 °C)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at T _A = 50 °C	P _{tot}	500 ¹⁾	mW
Junction temperature	T _J	175	°C
Storage temperature range	T _{STG}	-65 to +175	°C

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

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

	Symbols	Min	Typ	Max	Units
Thermal resistance junction to ambient air	R _{θJA}			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 are 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} ²⁾		I _{ZT} and I _{ZK} 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 0 V 8 ³⁾	0.8	5	0.73...0.83	<8	<50	1	--	--	--	-0.26...-0.23	
BZX 55/C 2 V 0	2.0		1.9...2.1	<85	<600		<100	<200	1	-0.09...-0.06	
BZX 55/C 2 V 4	2.4		2.28...2.56				<50	<100			
BZX 55/C 2 V 7	2.7		2.5...2.9				<10	<50			
BZX 55/C 3 V 0	3.0		2.8...3.2				<4	<40			-0.08...-0.05
BZX 55/C 3 V 3	3.3		3.1...3.5								
BZX 55/C 3 V 6	3.6		3.4...3.8				<2	<20			-0.06...-0.03
BZX 55/C 3 V 9	3.9		3.7...4.1				<1	<10			-0.05...+0.02
BZX 55/C 4 V 3	4.3		4.0...4.6				<60	<10			-0.02...+0.02
BZX 55/C 4 V 7	4.7		4.4...5.0				<35	<550			-0.05...+0.05
BZX 55/C 5 V 1	5.1		4.8...5.4				<25	<450			2
BZX 55/C 5 V 6	5.6		5.2...6.0	<10	<200		3	0.03...0.07			
BZX 55/C 6 V 2	6.2		5.8...6.6	<8	<150		5	0.03...0.07			
BZX 55/C 6 V 8	6.8		6.4...7.2	<7	<50		6.2	0.03...0.08			
BZX 55/C 7 V 5	7.5		7.0...7.9	<7			6.8	0.03...0.09			
BZX 55/C 8 V 2	8.2		7.7...8.7	<10	<0.1		<2	7.5	0.03...0.1		
BZX 55/C 9 V 1	9.1		8.5...9.6	<15				<70	8.2	0.03...0.11	
BZX 55/C 10	10		9.4...10.6	<20				<70	9.1		
BZX 55/C 11	11		10.4...11.6	<20				<90	10		
BZX 55/C 12	12		11.4...12.7	<26				<110	11		
BZX 55/C 13	13		12.4...14.1	<30				<110	12		
BZX 55/C 15	15		13.8...15.6	<40				<170	13		
BZX 55/C 16	16		15.3...17.1	<50				<170	15	0.04...0.12	
BZX 55/C 18	18		16.8...19.1	<55				<220	16		
BZX 55/C 20	20		18.8...21.2	<55					18		
BZX 55/C 22	22		20.8...23.3	<80	20						
BZX 55/C 24	24		22.8...25.6	<80							
BZX 55/C 27	27	25.1...28.9	<80								

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} ²⁾		r _{ZD} and r _{ZK} 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 30	30	5	28...32	<80	<220	1	<0.1	<2	22	0.04...0.12
BZX 55/C 33	33		31...35						24	
BZX 55/C 36	36		34...38						27	
BZX 55/C 39	39	2.5	37...41	<90	<500	0.5		<5	30	
BZX 55/C 43	43		40...46	<90	<500				33	
BZX 55/C 47	47		44...50	<110	<600				36	
BZX 55/C 51	51		48...54	<125	<700				39	
BZX 55/C 56	56		52...60	<135	<700				43	
BZX 55/C 62	62		58...66	<150	<1000				47	
BZX 55/C 68	68		64...72	<200				51		
BZX 55/C 75	75		70...79	<250				56		
BZX 55/C 82	82		77...87	<300	<1500			0.25	<10	
BZX 55/C 91	91	85...96	<450	<2000	0.1	68				
BZX 55/C 100	100	94...106	<450	<5000		75				
BZX 55/C 110	110	104...116	<600	<5000		82				
BZX 55/C 120	120	114...127	<800	<5500		91				
BZX 55/C 130	130	124...141	<950	<6000		100				
BZX 55/C 150	150	138...156	<1250	<6500		110				
BZX 55/C 160	160	153...171	<1400	<7000		120				
BZX 55/C 180	180	168...191	<1700	<8500		130				
BZX 55/C 200	200	188...212	<2000	<10000		0.1	150			

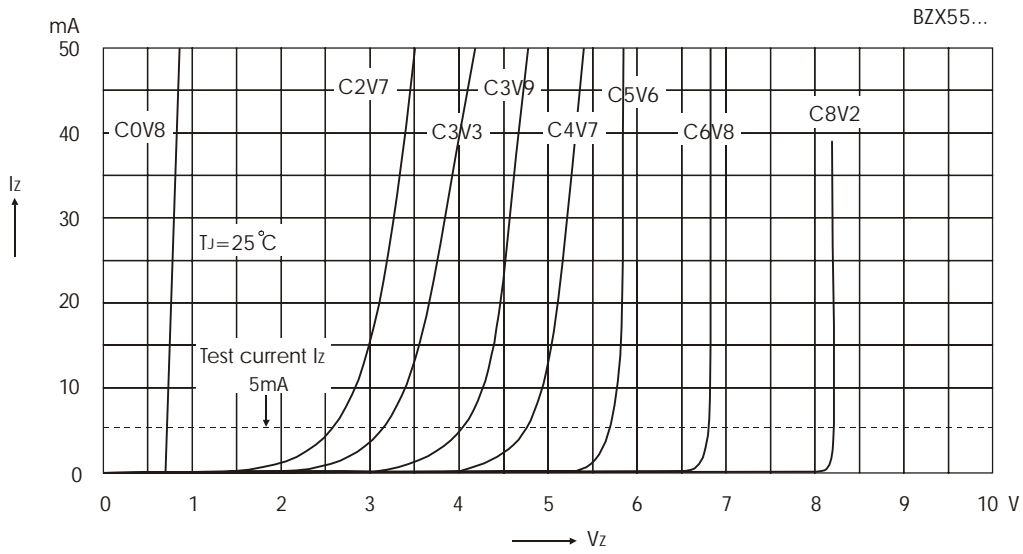
1) Teated with pulses tp=20ms

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

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.

BZX55... SILICON PLANAR ZENER DIODES

BREAKDOWN CHARACTERISTICS AT $T_J = \text{CONSTANT}$ (PULSED)



BREAKDOWN CHARACTERISTICS AT $T_J = \text{CONSTANT}$ (PULSED)

