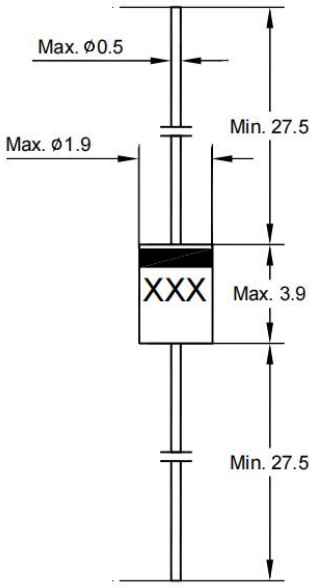
Silicon Planar Zener Diodes

Parameter	Value	Unit
V_Z	2.0~75	V
P_D	500	mW

DO-35



Features

- Through-hole device type mounting
- Hermetically sealed glass
- Compression bonded construction
- Solder hot dip Tin(Sn) lead finish
- Cathode indicated by polarity band
- All external surfaces are corrosion resistant and leads are readily solder able

Absolute Maximum Ratings and Characteristics (at Ta = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 [1])	mW
Junction Temperature	T_j	175	℃
Storage Temperature Range	T_{stg}	- 55 to + 175	℃
1) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.			

Characteristics at Ta = 25℃

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thJA}	0.3 [1])	K/mW
Forward Voltage at I_F =100mA	V_F	1	V
1) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.			

Characteristics at Ta = 25℃

Type	1) Zener Voltage Range			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage
	Vznom	VZT	at IZT	ZZT	ZZK	at IZK	Ta =25℃	Ta =125℃	IR at VR	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	Max. (μA)	(V)	TKvz (%/K)
BZX55C0V8 [2])	0.8	0.73...0.83	5	8	50	1	-	-	-	-0.26...-0.23
BZX55C2V0	2	1.8...2.15	5	85	600	1	100	200	1	-0.09...-0.06
BZX55C2V2	2.2	2.08...2.33	5	85	600	1	75	160	1	-0.09...-0.06
BZX55C2V4	2.4	2.28...2.56	5	85	600	1	50	100	1	-0.09...-0.06
BZX55C2V7	2.7	2.5...2.9	5	85	600	1	10	50	1	-0.09...-0.06

BZX55C3V0	3	2.8...3.2	5	85	600	1	4	40	1	-0.08...-0.05
BZX55C3V3	3.3	3.1...3.5	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V6	3.6	3.4...3.8	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V9	3.9	3.7...4.1	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C4V3	4.3	4...4.6	5	75	600	1	1	20	1	-0.06...-0.03
BZX55C4V7	4.7	4.4...5	5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55C5V1	5.1	4.8...5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
BZX55C5V6	5.6	5.2...6	5	25	450	1	0.1	2	1	-0.05...+0.05
BZX55C6V2	6.2	5.8...6.6	5	10	200	1	0.1	2	2	0.03...0.06
BZX55C6V8	6.8	6.4...7.2	5	8	150	1	0.1	2	3	0.03...0.07
BZX55C7V5	7.5	7...7.9	5	7	50	1	0.1	2	5	0.03...0.07
BZX55C8V2	8.2	7.7...8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
BZX55C9V1	9.1	8.5...9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
BZX55C10	10	9.4...10.6	5	15	70	1	0.1	2	7.5	0.03...0.1
BZX55C11	11	10.4...11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
BZX55C12	12	11.4...12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
BZX55C13	13	12.4...14.1	5	26	110	1	0.1	2	10	0.03...0.11
BZX55C15	15	13.8...15.6	5	30	110	1	0.1	2	11	0.03...0.11
BZX55C16	16	15.3...17.1	5	40	170	1	0.1	2	12	0.03...0.11
BZX55C18	18	16.8...19.1	5	50	170	1	0.1	2	13	0.03...0.11
BZX55C20	20	18.8...21.2	5	55	220	1	0.1	2	15	0.03...0.11
BZX55C22	22	20.8...23.3	5	55	220	1	0.1	2	16	0.04...0.12
BZX55C24	24	22.8...25.6	5	80	220	1	0.1	2	18	0.04...0.12
BZX55C27	27	25.1...28.9	5	80	220	1	0.1	2	20	0.04...0.12
BZX55C30	30	28...32	5	80	220	1	0.1	2	22	0.04...0.12
BZX55C33	33	31...35	5	80	220	1	0.1	2	24	0.04...0.12
BZX55C36	36	34...38	5	80	220	1	0.1	2	27	0.04...0.12
BZX55C39	39	37...41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
BZX55C43	43	40...46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
BZX55C47	47	44...50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
BZX55C51	51	48...54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
BZX55C56	56	52...60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
BZX55C62	62	58...66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55C68	68	64...72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55C75	75	70...79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

1.Tested with pulses tp = 20ms.
2.The BZX55C0V8 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.

***Important Usage Information and Disclaimer**

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