

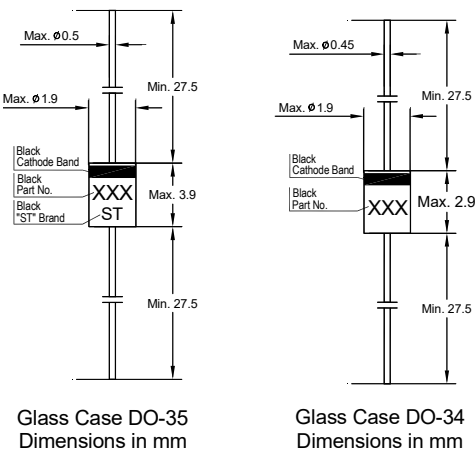
BZX55CxxxPF

Silicon Planar Zener Diodes

The Zener voltages are graded according to the international E24 standard. Other tolerances and higher Zener voltages are upon request.

Features

- Lead Free



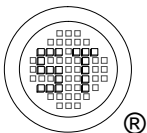
Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	500	mW
Junction Temperature	T_j	175	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 175	$^{\circ}\text{C}$

Characteristics at $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	300	$^{\circ}\text{C/W}$

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



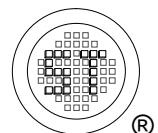
BZX55CxxxPF

Characteristics at $T_a = 25^\circ\text{C}$ (V_F max : 1 V at $I_F = 100$ mA)

Type	Zener Voltage Range ¹⁾			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage TKvz (%/K)
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	$T_a = 25^\circ\text{C}$	$T_a = 125^\circ\text{C}$	I_R at V_R	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	Max. (μA)	(V)	
BZX55C0V8PF ²⁾	0.8	0.73...0.83	5	8	50	1	-	-	-	-0.26...-0.23
BZX55C2V0PF	2	1.8...2.15	5	85	600	1	100	200	1	-0.09...-0.06
BZX55C2V2PF	2.2	2.08...2.33	5	85	600	1	75	160	1	-0.09...-0.06
BZX55C2V4PF	2.4	2.28...2.56	5	85	600	1	50	100	1	-0.09...-0.06
BZX55C2V7PF	2.7	2.5...2.9	5	85	600	1	10	50	1	-0.09...-0.06
BZX55C3V0PF	3	2.8...3.2	5	85	600	1	4	40	1	-0.08...-0.05
BZX55C3V3PF	3.3	3.1...3.5	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V6PF	3.6	3.4...3.8	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V9PF	3.9	3.7...4.1	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C4V3PF	4.3	4...4.6	5	75	600	1	1	20	1	-0.06...-0.03
BZX55C4V7PF	4.7	4.4...5	5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55C5V1PF	5.1	4.8...5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
BZX55C5V6PF	5.6	5.2...6	5	25	450	1	0.1	2	1	-0.05...+0.05
BZX55C6V2PF	6.2	5.8...6.6	5	10	200	1	0.1	2	2	0.03...0.06
BZX55C6V8PF	6.8	6.4...7.2	5	8	150	1	0.1	2	3	0.03...0.07
BZX55C7V5PF	7.5	7...7.9	5	7	50	1	0.1	2	5	0.03...0.07
BZX55C8V2PF	8.2	7.7...8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
BZX55C9V1PF	9.1	8.5...9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
BZX55C10PF	10	9.4...10.6	5	15	70	1	0.1	2	7.5	0.03...0.1
BZX55C11PF	11	10.4...11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
BZX55C12PF	12	11.4...12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
BZX55C13PF	13	12.4...14.1	5	26	110	1	0.1	2	10	0.03...0.11
BZX55C15PF	15	13.8...15.6	5	30	110	1	0.1	2	11	0.03...0.11
BZX55C16PF	16	15.3...17.1	5	40	170	1	0.1	2	12	0.03...0.11
BZX55C18PF	18	16.8...19.1	5	50	170	1	0.1	2	13	0.03...0.11
BZX55C20PF	20	18.8...21.2	5	55	220	1	0.1	2	15	0.03...0.11
BZX55C22PF	22	20.8...23.3	5	55	220	1	0.1	2	16	0.04...0.12
BZX55C24PF	24	22.8...25.6	5	80	220	1	0.1	2	18	0.04...0.12
BZX55C27PF	27	25.1...28.9	5	80	220	1	0.1	2	20	0.04...0.12
BZX55C30PF	30	28...32	5	80	220	1	0.1	2	22	0.04...0.12
BZX55C33PF	33	31...35	5	80	220	1	0.1	2	24	0.04...0.12
BZX55C36PF	36	34...38	5	80	220	1	0.1	2	27	0.04...0.12
BZX55C39PF	39	37...41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
BZX55C43PF	43	40...46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
BZX55C47PF	47	44...50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
BZX55C51PF	51	48...54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
BZX55C56PF	56	52...60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
BZX55C62PF	62	58...66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55C68PF	68	64...72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55C75PF	75	70...79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12
BZX55C82PF	82	77...87	2.5	300	1500	0.25	0.1	10	62	0.05...0.12

¹⁾ Tested with pulses $t_p = 20$ ms.

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.



Electrical Characteristics Curves

Fig.1 Zener Characteristics Curve

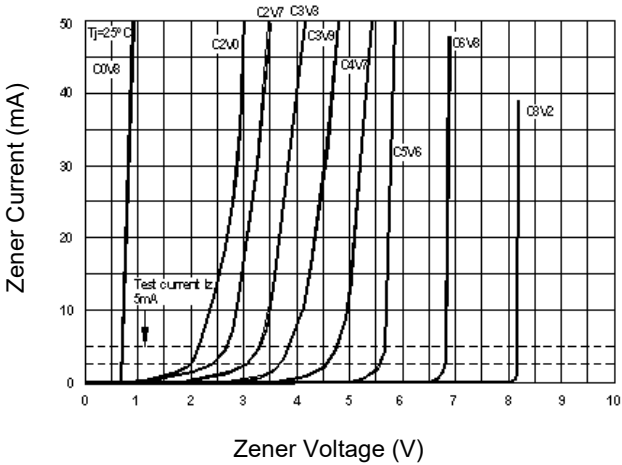


Fig.2 Zener Characteristics Curve

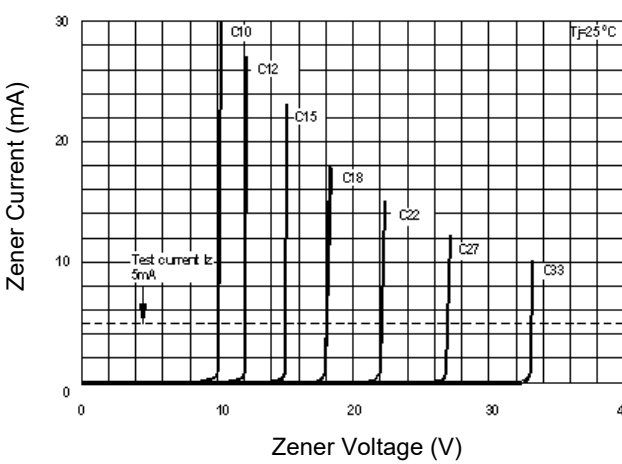
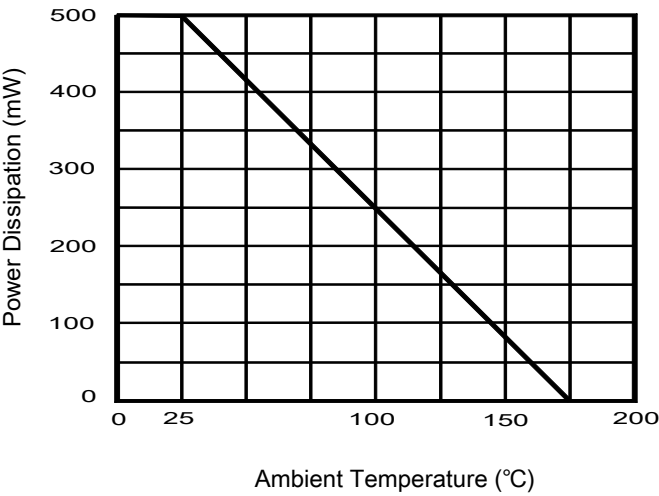


Fig.3 Power Derating Curve



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