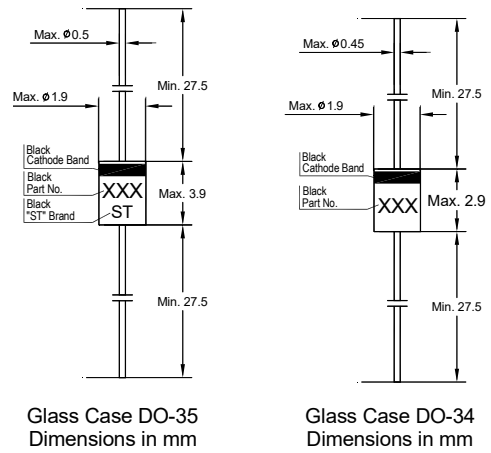


BZX55B

Silicon Planar Zener Diodes



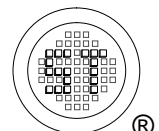
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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

Thermal Characteristics

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

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

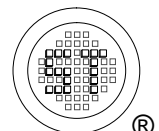


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Characteristics at $T_a = 25^\circ\text{C}$ (V_F max : 1 V at $I_F = 100$ mA)

Type	Zener Voltage Range ¹⁾			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage
	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)	TKvz (%/K)
BZX55B2V0	2	1.96...2.04	5	85	600	1	100	200	1	-0.09...-0.06
BZX55B2V2	2.2	2.16...2.24	5	85	600	1	75	160	1	-0.09...-0.06
BZX55B2V4	2.4	2.35...2.45	5	85	600	1	50	100	1	-0.09...-0.06
BZX55B2V7	2.7	2.65...2.75	5	85	600	1	10	50	1	-0.09...-0.06
BZX55B3V0	3	2.94...3.06	5	85	600	1	4	40	1	-0.08...-0.05
BZX55B3V3	3.3	3.23...3.37	5	85	600	1	2	40	1	-0.08...-0.05
BZX55B3V6	3.6	3.53...3.67	5	85	600	1	2	40	1	-0.08...-0.05
BZX55B3V9	3.9	3.82...3.98	5	85	600	1	2	40	1	-0.08...-0.05
BZX55B4V3	4.3	4.21...4.39	5	75	600	1	1	20	1	-0.06...-0.03
BZX55B4V7	4.7	4.61...4.79	5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55B5V1	5.1	5...5.2	5	35	550	1	0.1	2	1	-0.02...+0.02
BZX55B5V6	5.6	5.49...5.71	5	25	450	1	0.1	2	1	-0.05...+0.05
BZX55B6V2	6.2	6.08...6.32	5	10	200	1	0.1	2	2	0.03...0.06
BZX55B6V8	6.8	6.66...6.94	5	8	150	1	0.1	2	3	0.03...0.07
BZX55B7V5	7.5	7.35...7.65	5	7	50	1	0.1	2	5	0.03...0.07
BZX55B8V2	8.2	8.04...8.36	5	7	50	1	0.1	2	6.2	0.03...0.08
BZX55B9V1	9.1	8.92...9.28	5	10	50	1	0.1	2	6.8	0.03...0.09
BZX55B10	10	9.8...10.2	5	15	70	1	0.1	2	7.5	0.03...0.1
BZX55B11	11	10.78...11.22	5	20	70	1	0.1	2	8.2	0.03...0.11
BZX55B12	12	11.76...12.24	5	20	90	1	0.1	2	9.1	0.03...0.11
BZX55B13	13	12.74...13.26	5	26	110	1	0.1	2	10	0.03...0.11
BZX55B15	15	14.7...15.3	5	30	110	1	0.1	2	11	0.03...0.11
BZX55B16	16	15.68...16.32	5	40	170	1	0.1	2	12	0.03...0.11
BZX55B18	18	17.64...18.36	5	50	170	1	0.1	2	13	0.03...0.11
BZX55B20	20	19.6...20.4	5	55	220	1	0.1	2	15	0.03...0.11
BZX55B22	22	21.56...22.44	5	55	220	1	0.1	2	16	0.04...0.12
BZX55B24	24	23.52...24.48	5	80	220	1	0.1	2	18	0.04...0.12
BZX55B27	27	26.46...27.54	5	80	220	1	0.1	2	20	0.04...0.12
BZX55B30	30	29.4...30.6	5	80	220	1	0.1	2	22	0.04...0.12
BZX55B33	33	32.34...33.66	5	80	220	1	0.1	2	24	0.04...0.12
BZX55B36	36	35.28...36.72	5	80	220	1	0.1	2	27	0.04...0.12
BZX55B39	39	38.22...39.78	2.5	90	500	0.5	0.1	5	30	0.04...0.12
BZX55B43	43	42.14...43.86	2.5	90	500	0.5	0.1	5	33	0.04...0.12
BZX55B47	47	46.06...47.94	2.5	110	600	0.5	0.1	5	36	0.04...0.12
BZX55B51	51	49.98...52.02	2.5	125	700	0.5	0.1	10	39	0.04...0.12
BZX55B56	56	54.88...57.12	2.5	135	700	0.5	0.1	10	43	0.04...0.12
BZX55B62	62	60.76...63.24	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55B68	68	66.64...69.36	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55B75	75	73.5...76.5	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

¹⁾ Tested with pulses $t_p = 20$ ms.



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Electrical Characteristics Curves

Fig 1. Zener Characteristics Curve

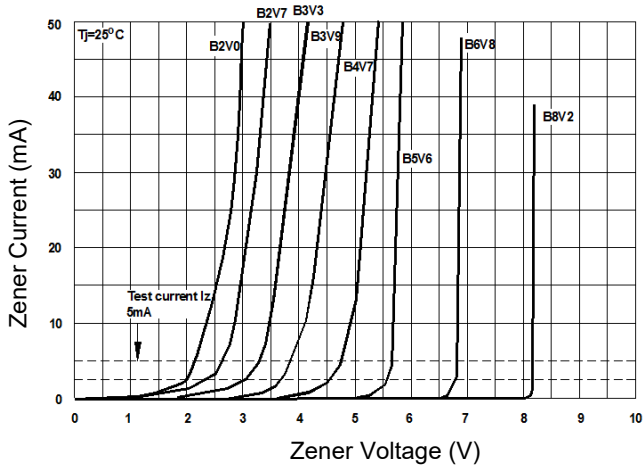


Fig 2. Zener Characteristics Curve

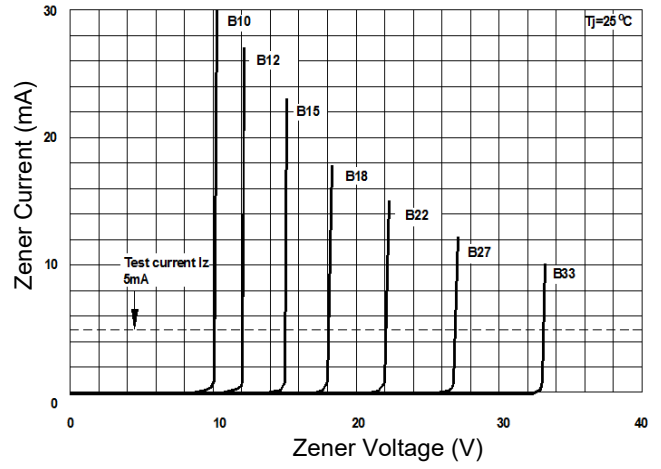


Fig 3. Power Derating Curve

