

BZX55B2V0 ~ BZX55B100

V_Z : 2.0 - 100 Volts

P_D : 500 mW

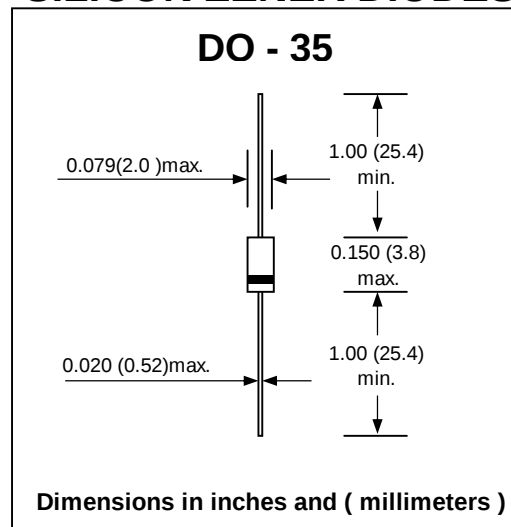
FEATURES :

- * Complete 2.0 to 100 Volts
- * High surge current capability
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * Zener Voltage tolerance is $\pm 2\%$
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : Molded glass
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end. When operated in zener mode, cathode will be positive with respect to anode
- * Mounting position : Any
- * Weight : 0.13 gram (approx.)

SILICON ZENER DIODES



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Power Dissipation (Note1)	P_D	500	mW
Maximum Forward Voltage at $I_F = 100$ mA	V_F	1.0	V
Maximum Thermal Resistance Junction to Ambient Air (Note1)	$R_{\theta JA}$	300	°C/W
Junction Temperature Range	T_j	- 65 to + 200	°C
Storage Temperature Range	T_s	- 65 to + 200	°C

Note : (1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type Number	Zener Voltage $V_Z @ I_{ZT}$				Maximum Zener Impedance			Maximum Reverse Leakage Current, I_R			Temp. coefficient of Zener Voltage TK_{VZ} (% / K)	Admissible Zener Current ⁽²⁾ I_{ZM} (mA)
	Nom ¹⁾ (V)	Min ²⁾ (V)	Max ²⁾ (V)	I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω)	$Z_{ZK} @ I_{ZK}$ (Ω)	I_{ZK} (mA)	Ta=25°C (mA)	Ta=150°C (mA)	at V_R (V)		
BZX55B2V0	2.0	1.96	2.04	5.0	85	600	1.0	100	200	1.0	-0.09...-0.06	175
BZX55B2V2	2.2	2.15	2.25	5.0	85	600	1.0	50	100	1.0	-0.09...-0.06	160
BZX55B2V4	2.4	2.35	2.45	5.0	85	600	1.0	50	100	1.0	-0.09...-0.06	145
BZX55B2V7	2.7	2.65	2.75	5.0	85	600	1.0	10	50	1.0	-0.09...-0.06	135
BZX55B3V0	3.0	2.94	3.06	5.0	85	600	1.0	4.0	40	1.0	-0.08...-0.05	125
BZX55B3V3	3.3	3.23	3.37	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	115
BZX55B3V6	3.6	3.53	3.67	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	105
BZX55B3V9	3.9	3.82	3.98	5.0	85	600	1.0	2.0	40	1.0	-0.08...-0.05	95
BZX55B4V3	4.3	4.21	4.39	5.0	75	600	1.0	1.0	20	1.0	-0.06...-0.03	90
BZX55B4V7	4.7	4.61	4.8	5.0	60	600	1.0	0.5	10	1.0	-0.05...+0.02	85
BZX55B5V1	5.1	5.00	5.2	5.0	35	550	1.0	0.1	2.0	1.0	-0.02...+0.02	80
BZX55B5V6	5.6	5.49	5.7	5.0	25	450	1.0	0.1	2.0	1.0	-0.05...+0.05	70
BZX55B6V2	6.2	6.08	6.32	5.0	10	200	1.0	0.1	2.0	2.0	0.03...0.06	64
BZX55B6V8	6.8	6.66	6.94	5.0	8	150	1.0	0.1	2.0	3.0	0.03...0.07	58
BZX55B7V5	7.5	7.35	7.65	5.0	7	50	1.0	0.1	2.0	5.0	0.03...0.07	53
BZX55B8V2	8.2	8.04	8.36	5.0	7	50	1.0	0.1	2.0	6.2	0.03...0.08	47
BZX55B9V1	9.1	8.92	9.28	5.0	10	50	1.0	0.1	2.0	6.8	0.03...0.09	43
BZX55B10	10	9.80	10.2	5.0	15	70	1.0	0.1	2.0	7.5	0.03...0.10	40
BZX55B11	11	10.8	11.2	5.0	20	70	1.0	0.1	2.0	8.2	0.03...0.11	36
BZX55B12	12	11.8	12.2	5.0	20	90	1.0	0.1	2.0	9.1	0.03...0.11	32
BZX55B13	13	12.7	13.3	5.0	26	110	1.0	0.1	2.0	10.0	0.03...0.11	29
BZX55B14	14	13.7	14.3	5.0	28	110	1.0	0.1	2.0	10.5	0.03...0.11	28
BZX55B15	15	14.7	15.3	5.0	30	110	1.0	0.1	2.0	11	0.03...0.11	27
BZX55B16	16	15.7	16.3	5.0	40	170	1.0	0.1	2.0	12	0.03...0.11	24
BZX55B18	18	17.6	18.4	5.0	50	170	1.0	0.1	2.0	13	0.03...0.11	21
BZX55B20	20	19.6	20.4	5.0	55	220	1.0	0.1	2.0	15	0.03...0.11	20
BZX55B22	22	21.6	22.4	5.0	55	220	1.0	0.1	2.0	16	0.04...0.12	18
BZX55B24	24	23.5	24.5	5.0	80	220	1.0	0.1	2.0	18	0.04...0.12	16
BZX55B27	27	26.5	27.5	5.0	80	220	1.0	0.1	2.0	20	0.04...0.12	14
BZX55B30	30	29.4	30.6	5.0	80	220	1.0	0.1	2.0	22	0.04...0.12	13
BZX55B33	33	32.3	33.7	5.0	80	220	1.0	0.1	2.0	24	0.04...0.12	12
BZX55B36	36	35.3	36.7	5.0	80	220	1.0	0.1	2.0	27	0.04...0.12	11
BZX55B39	39	38.2	39.8	2.5	90	500	0.5	0.1	5.0	30	0.04...0.12	10
BZX55B43	43	42.1	43.9	2.5	90	500	0.5	0.1	5.0	33	0.04...0.12	9.2
BZX55B47	47	46.1	47.9	2.5	110	600	0.5	0.1	5.0	36	0.04...0.12	8.5
BZX55B51	51	50.0	52	2.5	125	700	0.5	0.1	10	39	0.04...0.12	7.8
BZX55B56	56	54.9	57.1	2.5	135	700	0.5	0.1	10	43	typ. 0.1 ⁽³⁾	7.0
BZX55B62	62	60.8	63.2	2.5	150	1000	0.5	0.1	10	47	typ. 0.1 ⁽³⁾	6.4
BZX55B68	68	66.6	69.4	2.5	200	1000	0.5	0.1	10	51	typ. 0.1 ⁽³⁾	5.9
BZX55B75	75	73.5	76.5	2.5	250	1000	0.5	0.1	10	56	typ. 0.1 ⁽³⁾	5.3
BZX55B82	82	80.4	83.6	2.5	300	1500	0.5	0.1	10	62	typ. 0.1 ⁽³⁾	4.8
BZX55B91	91	89.2	92.8	1.0	450	2000	0.1	0.1	10	68	typ. 0.1 ⁽³⁾	4.4
BZX55B100	100	98.0	102	1.0	450	5000	0.1	0.1	10	75	typ. 0.1 ⁽³⁾	4.0

Notes: 1) Tested with pulses $t_p = 20$ ms

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

3) at $I_Z = 2.5$ mA