

SILICON ZENER DIODES

Features:

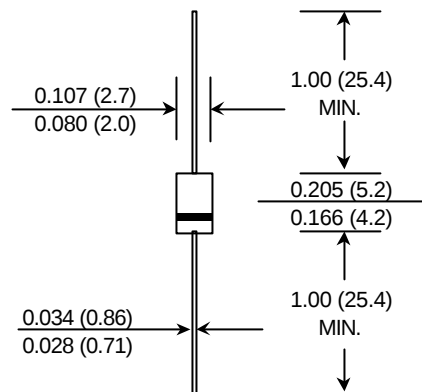
- * Complete Voltage Range 2.7 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current

Mechanical Data:

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.339 gram

V_Z : 2.4 - 200 Volts
 P_D : 1.3 Watts

DO - 41



MAXIMUM RATINGS

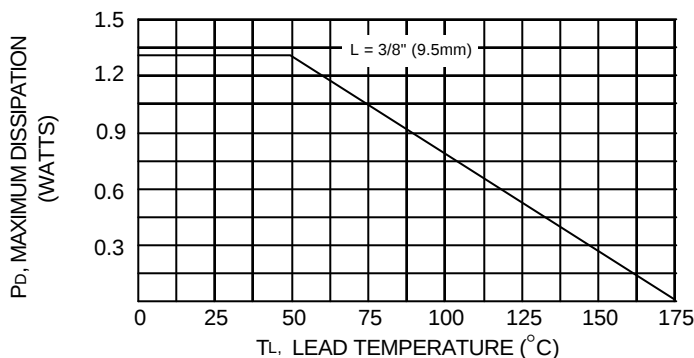
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 50\text{ }^{\circ}\text{C}$ (Note1)	P_D	1.3	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.0	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	130	K / W
Junction Temperature Range	T_J	- 55 to + 175	$^{\circ}\text{C}$
Storage Temperature Range	T_S	- 55 to + 175	$^{\circ}\text{C}$

Note :

- (1) T_L = Lead temperature at 3/8 " (9.5mm) from body
- (2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig.1 POWER TEMPERATURE DERATING CURVE



ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ IzK	IzK	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
BZX85 C2V4	2.4	80	20	400	1.0	150	1.0	410
BZX85 C2V7	2.7	80	20	400	1.0	150	1.0	370
BZX85 C3V0	3.0	80	20	400	1.0	100	1.0	340
BZX85 C3V3	3.3	80	20	400	1.0	40	1.0	320
BZX85 C3V6	3.6	70	20	500	1.0	20	1.0	290
BZX85 C3V9	3.9	60	15	500	1.0	10	1.0	280
BZX85 C4V3	4.3	50	13	500	1.0	3.0	1.0	250
BZX85 C4V7	4.7	45	13	500	1.0	3.0	1.0	215
BZX85 C5V1	5.1	45	10	500	1.0	1.0	1.5	200
BZX85 C5V6	5.6	45	7.0	400	1.0	1.0	2.0	190
BZX85 C6V2	6.2	35	4.0	300	1.0	1.0	3.0	170
BZX85 C6V8	6.8	35	3.5	300	1.0	50	4.0	155
BZX85 C7V5	7.5	35	3.0	200	0.5	50	4.5	140
BZX85 C8V2	8.2	25	5.0	200	0.5	50	6.2	130
BZX85 C9V1	9.1	25	5.0	200	0.5	50	6.8	120
BZX85 C10	10	25	7.0	200	0.5	50	7.5	105
BZX85 C11	11	20	8.0	300	0.5	50	8.2	97
BZX85 C12	12	20	9.0	350	0.5	0.5	9.1	88
BZX85 C13	13	20	10	400	0.5	0.5	10	79
BZX85 C15	15	15	15	500	0.5	0.5	11	71
BZX85 C16	16	15	15	500	0.5	0.5	12	66
BZX85 C18	18	15	20	500	0.5	0.5	13	62
BZX85 C20	20	10	24	600	0.5	0.5	15	56
BZX85 C22	22	10	25	600	0.5	0.5	16	52
BZX85 C24	24	10	25	600	0.5	0.5	18	47
BZX85 C27	27	8.0	30	750	0.25	0.5	20	41
BZX85 C30	30	8.0	30	1000	0.25	0.5	22	36
BZX85 C33	33	8.0	35	1000	0.25	0.5	24	33
BZX85 C36	36	8.0	40	1000	0.25	0.5	27	30
BZX85 C39	39	6.0	50	1000	0.25	0.5	30	28
BZX85 C43	43	6.0	50	1000	0.25	0.5	33	26
BZX85 C47	47	4.0	90	1500	0.25	0.5	36	23
BZX85 C51	51	4.0	115	1500	0.25	0.5	39	21
BZX85 C56	56	4.0	120	2000	0.25	0.5	43	19
BZX85 C62	62	4.0	125	2000	0.25	0.5	47	16
BZX85 C68	68	4.0	130	2000	0.25	0.5	51	15
BZX85 C75	75	4.0	135	2000	0.25	0.5	56	14
BZX85 C82	82	2.7	200	3000	0.25	0.5	62	12
BZX85 C91	91	2.7	250	3000	0.25	0.5	68	10
BZX85 C100	100	2.7	350	3000	0.25	0.5	75	9.4
BZX85 C110	110	2.7	450	4000	0.25	0.5	82	8.6
BZX85 C120	120	2.0	550	4500	0.25	0.5	91	7.8
BZX85 C130	130	2.0	700	5000	0.25	0.5	100	7.0
BZX85 C150	150	2.0	1000	6000	0.25	0.5	110	6.4
BZX85 C160	160	1.5	1100	6500	0.25	0.5	120	5.8
BZX85 C180	180	1.5	1200	7000	0.25	0.5	130	5.2
BZX85 C200	200	1.5	1500	8000	0.25	0.5	150	4.7

Note :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$.
- (2) " BZX " will be omitted in marking on the diode