



ZENER DIODES

V_Z : 3.6 - 200 Volts

P_D : 2 Watts

FEATURES :

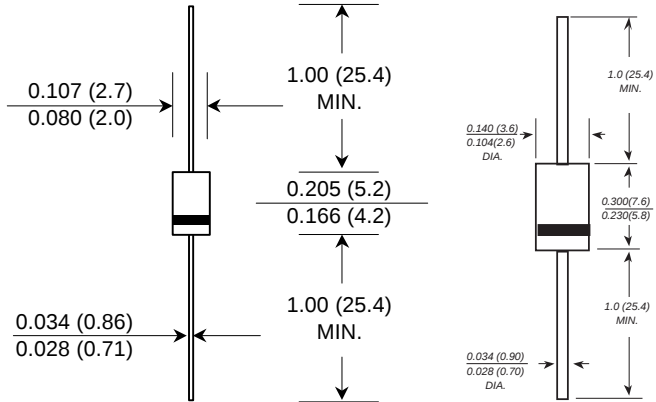
- * Silicon power zener diode
- * High reliability
- * Low leakage current

MECHANICAL DATA

- * Case : DO-41/DO-15 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 : -- gram

CASE DO-41

CASE DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

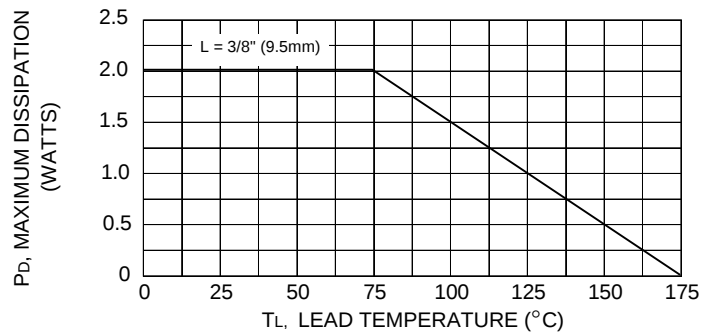
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1)	P_D	2.0	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	60	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 ($T_j = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Type No.	Zener Voltage ⁽²⁾ at I_{ZT} V_Z (V)		Dynamic resistance at I_{ZT} max. r_{Zj} (W)	Temp. coeff. of Zener Voltage at I_{ZT} α_{VZ} ($10^{-4}/K$)	Test Current I_{ZT} (mA)	Maximum Reverse at $I_R = 1\text{ mA}$ V_R (V)	Admissible Zener Current ⁽¹⁾ at $T_a = 25\text{ }^{\circ}\text{C}$ I_Z (mA)
	min.	max.					
ZY3.6	3.4	3.8	7	-7...+2	100	-	440
ZY3.9	3.7	4.1	7	-7...+2	100	-	410
ZY4.3	4.0	4.6	7	-7...+3	100	-	360
ZY4.7	4.4	5.0	7	-7...+4	100	-	330
ZY5.1	4.8	5.4	5	-6...+5	100	-	300
ZY5.6	5.2	6.0	2	-3...+5	100	>1.5	275
ZY6.2	5.8	6.6	2	-1...+6	100	>1.5	245
ZY6.8	6.4	7.2	1	0...+7	100	>2	220
ZY7.5	7.0	7.9	1	0...+7	100	>2	200
ZY8.2	7.7	8.7	1	+3...+8	100	>3.5	180
ZY9.1	8.5	9.6	4	+3...+8	50	>7.4	165
ZY10	9.4	10.6	4	+5...+9	50	>8.2	145
ZY11	10.4	11.6	7	+5...+10	50	>9.2	135
ZY12	11.4	12.7	7	+5...+10	50	>10	120
ZY13	12.4	14.1	10	+5...+10	50	>10.7	110
ZY15	13.8	15.8	10	+5...+10	50	>12	98
ZY16	15.3	17.1	15	+6...+11	25	>13.3	90
ZY18	16.8	19.1	15	+6...+11	25	>14.7	80
ZY20	18.8	21.2	15	+6...+11	25	>16.5	72
ZY22	20.8	23.3	15	+6...+11	25	>18.3	66
ZY24	22.8	25.6	15	+6...+11	25	>20.1	60
ZY27	25.1	28.9	15	+6...+11	25	>22.5	53
ZY30	28	32	15	+6...+11	25	>25.1	48
ZY33	31	35	15	+6...+11	25	>27.8	44
ZY36	34	38	40	+6...+11	10	>30.2	40
ZY39	37	41	40	+6...+11	10	>32.9	37
ZY43	40	46	45	+7...+12	10	>35.6	33
ZY47	44	50	45	+7...+12	10	>39.2	30
ZY51	48	54	60	+7...+12	10	>42.8	27
ZY56	52	60	60	+7...+12	10	>47.3	25
ZY62	58	66	80	+8...+13	10	>51.7	21
ZY68	64	72	80	+8...+13	10	>57.1	20
ZY75	70	79	100	+8...+13	10	>63.2	18
ZY82	77	88	100	+8...+13	10	>68.6	16
ZY91	85	96	200	+9...+13	5	>75.7	15
ZY100	94	106	200	+9...+13	5	>83.7	13
ZY110	104	116	250	+9...+13	5	>92.6	12
ZY120	114	127	250	+9...+13	5	>101.6	11
ZY130	124	141	300	+9...+13	5	>110.5	10
ZY150	138	156	300	+9...+13	5	>123	9
ZY160	153	171	350	+9...+13	5	>136	8.5
ZY180	168	191	350	+9...+13	5	>149	8
ZY200	168	212	350	+9 ... +13	5	>167	7.5

Notes : 1) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

2) Tested with pulses $t_p = 5\text{ ms}$

3) Suffix " L " indicates DO-15 Molded plastic