

V_Z : 5.1 to 200 V
 P_D : 5 W

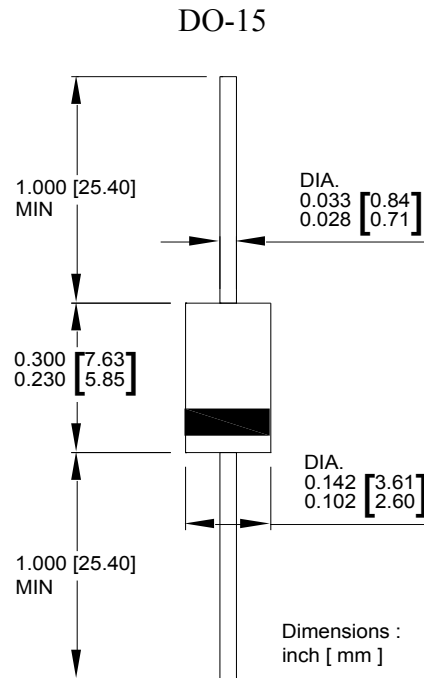
Axial Lead Zener Diodes

Features

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- For use in stabilizing and clipping circuits with high power rating
- RoHS compliant

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|--|-----------|---------------|--------------------|
| DC power dissipation at $T_L = 50^{\circ}\text{C}^{(1)}$ | P_D | 5 | W |
| Maximum forward voltage at $I_F = 200\text{ mA}$ | V_F | 1.2 | V |
| Junction temperature range | T_J | - 55 to + 150 | $^{\circ}\text{C}$ |
| Storage temperature range | T_{STG} | - 55 to + 150 | $^{\circ}\text{C}$ |

Note:

(1) T_L = Lead temperature at 3/8 " (9.5mm) from body

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

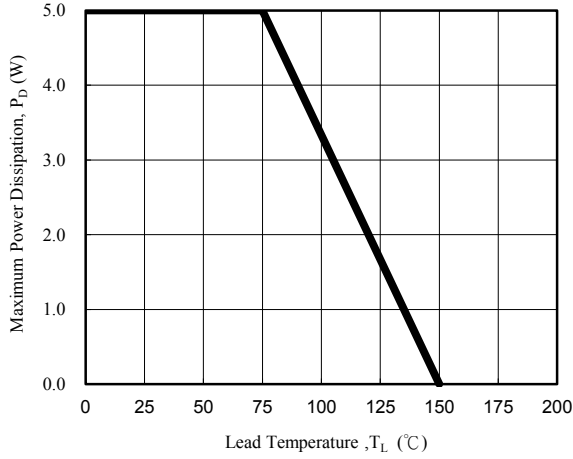


Fig. 1 - Power Temperature Derating Curve

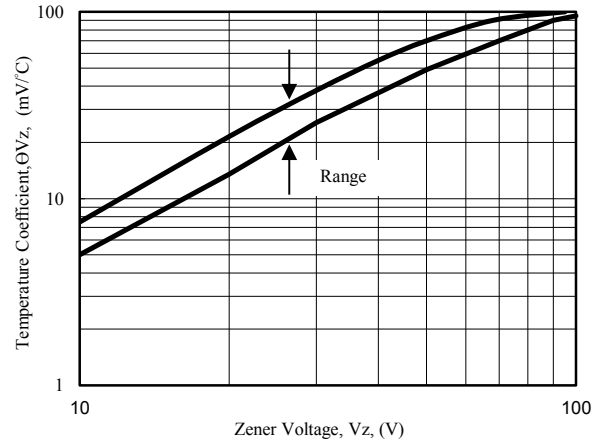


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

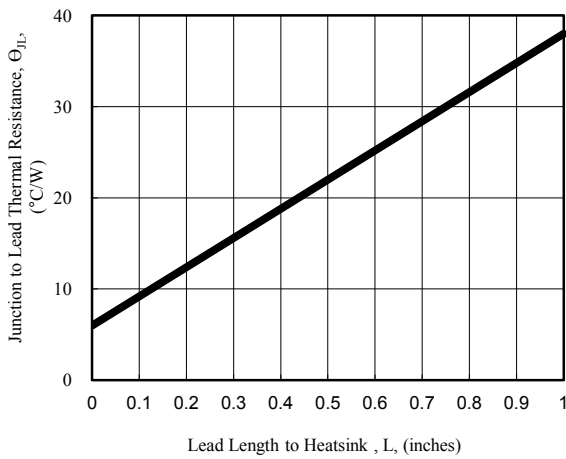


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

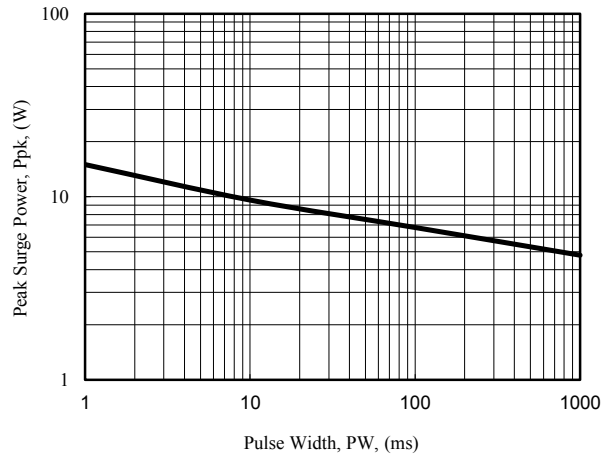


Fig. 4 - Maximum Surge Power

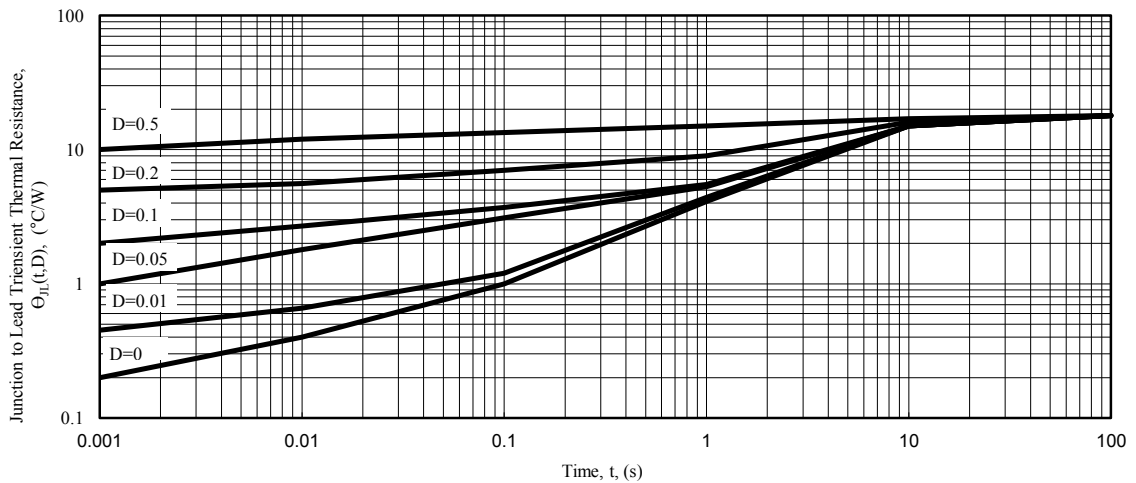


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Part Number | Nominal Zener Voltage | | Maximum Zener Impedance | | | Maximum Reverse Leakage Current | | Maximum DC Zener Current |
|-------------|-----------------------|----------|-------------------------|-------------------|----------|---------------------------------|-------|--------------------------|
| | $V_Z @ I_{ZT}$ | I_{ZT} | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK}$ | I_{ZK} | $I_R @ V_R$ | | I_{ZM} |
| | (V) | (mA) | (Ω) | (Ω) | (mA) | (μA) | (V) | (mA) |
| 1N5338B | 5.1 | 240 | 1.5 | 400 | 1 | 1.0 | 1.0 | 930.0 |
| 1N5339B | 5.6 | 220 | 1.0 | 400 | 1 | 1.0 | 2.0 | 846.0 |
| 1N5340B | 6.0 | 200 | 1.0 | 300 | 1 | 1.0 | 3.0 | 790.0 |
| 1N5341B | 6.2 | 200 | 1.0 | 200 | 1 | 1.0 | 3.0 | 765.0 |
| 1N5342B | 6.8 | 175 | 1.0 | 200 | 1 | 10.0 | 5.2 | 700.0 |
| 1N5343B | 7.5 | 175 | 1.5 | 200 | 1 | 10.0 | 5.7 | 630.0 |
| 1N5344B | 8.2 | 150 | 1.5 | 200 | 1 | 10.0 | 6.2 | 580.0 |
| 1N5345B | 8.7 | 150 | 2.0 | 200 | 1 | 10.0 | 6.6 | 545.0 |
| 1N5346B | 9.1 | 150 | 2.0 | 150 | 1 | 7.5 | 6.9 | 520.0 |
| 1N5347B | 10.0 | 125 | 2.0 | 125 | 1 | 5.0 | 7.6 | 475.0 |
| 1N5348B | 11.0 | 125 | 2.5 | 125 | 1 | 5.0 | 8.4 | 430.0 |
| 1N5349B | 12.0 | 100 | 2.5 | 125 | 1 | 2.0 | 9.1 | 395.0 |
| 1N5350B | 13.0 | 100 | 2.5 | 100 | 1 | 1.0 | 9.9 | 365.0 |
| 1N5351B | 14.0 | 100 | 2.5 | 75 | 1 | 1.0 | 10.6 | 340.0 |
| 1N5352B | 15.0 | 75 | 2.5 | 75 | 1 | 1.0 | 11.5 | 315.0 |
| 1N5353B | 16.0 | 75 | 2.5 | 75 | 1 | 1.0 | 12.2 | 295.0 |
| 1N5354B | 17.0 | 70 | 2.5 | 75 | 1 | 0.5 | 12.9 | 280.0 |
| 1N5355B | 18.0 | 65 | 2.5 | 75 | 1 | 0.5 | 13.7 | 265.0 |
| 1N5356B | 19.0 | 65 | 3.0 | 75 | 1 | 0.5 | 14.4 | 250.0 |
| 1N5357B | 20.0 | 65 | 3.0 | 75 | 1 | 0.5 | 15.2 | 237.0 |
| 1N5358B | 22.0 | 50 | 3.5 | 75 | 1 | 0.5 | 16.7 | 216.0 |
| 1N5359B | 24.0 | 50 | 3.5 | 100 | 1 | 0.5 | 18.2 | 198.0 |
| 1N5360B | 25.0 | 50 | 4.0 | 110 | 1 | 0.5 | 19.0 | 190.0 |
| 1N5361B | 27.0 | 50 | 5.0 | 120 | 1 | 0.5 | 20.6 | 176.0 |
| 1N5362B | 28.0 | 50 | 6.0 | 130 | 1 | 0.5 | 21.2 | 170.0 |
| 1N5363B | 30.0 | 40 | 8.0 | 140 | 1 | 0.5 | 22.8 | 158.0 |
| 1N5364B | 33.0 | 40 | 10.0 | 150 | 1 | 0.5 | 25.1 | 144.0 |
| 1N5365B | 36.0 | 30 | 11.0 | 160 | 1 | 0.5 | 27.4 | 132.0 |
| 1N5366B | 39.0 | 30 | 14.0 | 170 | 1 | 0.5 | 29.7 | 122.0 |
| 1N5367B | 43.0 | 30 | 20.0 | 190 | 1 | 0.5 | 32.7 | 110.0 |
| 1N5368B | 47.0 | 25 | 25.0 | 210 | 1 | 0.5 | 35.8 | 100.0 |
| 1N5369B | 51.0 | 25 | 27.0 | 230 | 1 | 0.5 | 38.8 | 93.0 |
| 1N5370B | 56.0 | 20 | 35.0 | 280 | 1 | 0.5 | 42.6 | 86.0 |
| 1N5371B | 60.0 | 20 | 40.0 | 350 | 1 | 0.5 | 45.5 | 79.0 |
| 1N5372B | 62.0 | 20 | 42.0 | 400 | 1 | 0.5 | 47.1 | 76.0 |
| 1N5373B | 68.0 | 20 | 44.0 | 500 | 1 | 0.5 | 51.7 | 70.0 |
| 1N5374B | 75.0 | 20 | 45.0 | 620 | 1 | 0.5 | 56.0 | 63.0 |
| 1N5375B | 82.0 | 15 | 65.0 | 720 | 1 | 0.5 | 62.2 | 58.0 |
| 1N5376B | 87.0 | 15 | 75.0 | 760 | 1 | 0.5 | 66.0 | 54.5 |
| 1N5377B | 91.0 | 15 | 75.0 | 760 | 1 | 0.5 | 69.2 | 52.5 |
| 1N5378B | 100.0 | 12 | 90.0 | 800 | 1 | 0.5 | 76.0 | 47.5 |
| 1N5379B | 110.0 | 12 | 125.0 | 1000 | 1 | 0.5 | 83.6 | 43.0 |
| 1N5380B | 120.0 | 10 | 170.0 | 1150 | 1 | 0.5 | 91.2 | 39.5 |
| 1N5381B | 130.0 | 10 | 190.0 | 1250 | 1 | 0.5 | 98.8 | 36.6 |
| 1N5382B | 140.0 | 8 | 230.0 | 1500 | 1 | 0.5 | 106.0 | 34.0 |