

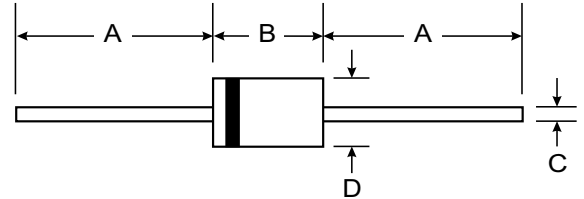
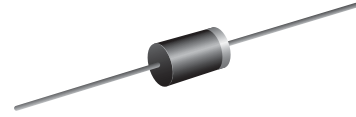
**VOLTAGE RANGE: 3.6 - 200V**  
**POWER: 2.0Watts**

### Features

- Complete Voltage Range 3.6 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

### Mechanical Data

- Case : 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 : 0.339 gram



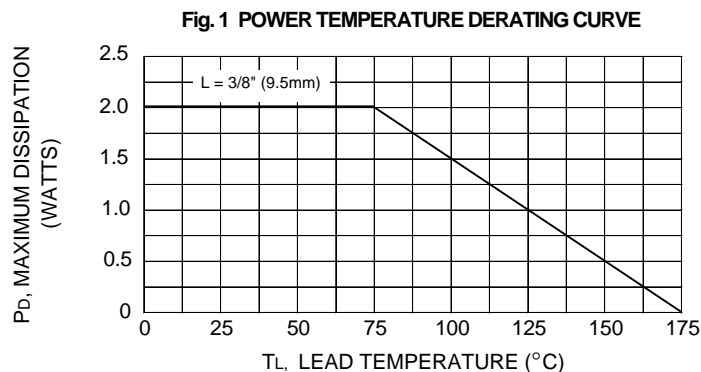
| DO-15                |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 25.40 | —     |
| B                    | 5.50  | 7.62  |
| C                    | 0.686 | 0.889 |
| D                    | 2.60  | 3.60  |
| All Dimensions in mm |       |       |

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

| Rating   | Symbol           | Value         | Unit  |
|--|------------------|---------------|-------|
| DC Power Dissipation at T <sub>L</sub> = 75 °C (Note1)     | P <sub>D</sub>   | 2.0           | Watts |
| Maximum Forward Voltage at I <sub>F</sub> = 200 mA         | V <sub>F</sub>   | 1.2           | Volts |
| Maximum Thermal Resistance Junction to Ambient Air (Note2) | R <sub>θJA</sub> | 60            | K / W |
| Junction Temperature Range                                 | T <sub>J</sub>   | - 55 to + 175 | °C    |
| Storage Temperature Range                                  | T <sub>s</sub>   | - 55 to + 175 | °C    |

**Note:**

- (1) T<sub>L</sub> = 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.





| 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)                     |
| ZY3.6 | 3.6                   | 139  | 5.0                     | 400       | 1.0  | 80                              | 1.0   | 504                      |
| ZY3.9 | 3.9                   | 128  | 5.0                     | 400       | 1.0  | 30                              | 1.0   | 468                      |
| ZY4.3 | 4.3                   | 116  | 4.5                     | 400       | 1.0  | 20                              | 1.0   | 434                      |
| ZY4.7 | 4.7                   | 106  | 4.5                     | 550       | 1.0  | 5.0                             | 1.0   | 386                      |
| ZY5.1 | 5.1                   | 98.0 | 3.5                     | 600       | 1.0  | 5.0                             | 1.0   | 356                      |
| ZY5.6 | 5.6                   | 89.5 | 2.5                     | 500       | 1.0  | 5.0                             | 2.0   | 324                      |
| ZY6.2 | 6.2                   | 80.5 | 1.5                     | 700       | 1.0  | 5.0                             | 3.0   | 292                      |
| ZY6.8 | 6.8                   | 73.5 | 2.0                     | 700       | 1.0  | 5.0                             | 4.0   | 266                      |
| ZY7.5 | 7.5                   | 66.5 | 2.0                     | 700       | 0.5  | 50                              | 5.0   | 242                      |
| ZY8.2 | 8.2                   | 61.0 | 2.3                     | 700       | 0.5  | 50                              | 6.0   | 220                      |
| ZY9.1 | 9.1                   | 55.0 | 2.5                     | 700       | 0.5  | 50                              | 7.0   | 200                      |
| ZY10  | 10                    | 50.0 | 3.5                     | 700       | 0.25 | 50                              | 7.6   | 182                      |
| ZY11  | 11                    | 45.5 | 4.0                     | 700       | 0.25 | 50                              | 8.4   | 166                      |
| ZY12  | 12                    | 41.5 | 4.5                     | 700       | 0.25 | 1.0                             | 9.1   | 152                      |
| ZY13  | 13                    | 38.5 | 5.0                     | 700       | 0.25 | 0.5                             | 9.9   | 138                      |
| ZY14  | 14                    | 35.7 | 5.5                     | 700       | 0.25 | 0.5                             | 10.6  | 130                      |
| ZY15  | 15                    | 33.4 | 7.0                     | 700       | 0.25 | 0.5                             | 11.4  | 122                      |
| ZY16  | 16                    | 31.2 | 8.0                     | 700       | 0.25 | 0.5                             | 12.2  | 114                      |
| ZY17  | 17                    | 29.4 | 9.0                     | 750       | 0.25 | 0.5                             | 13.0  | 107                      |
| ZY18  | 18                    | 27.8 | 10                      | 750       | 0.25 | 0.5                             | 13.7  | 100                      |
| ZY19  | 19                    | 26.3 | 11                      | 750       | 0.25 | 0.5                             | 14.4  | 95                       |
| ZY20  | 20                    | 25.0 | 11                      | 750       | 0.25 | 0.5                             | 15.2  | 90                       |
| ZY22  | 22                    | 22.8 | 12                      | 750       | 0.25 | 0.5                             | 16.7  | 82                       |
| ZY24  | 24                    | 20.8 | 13                      | 750       | 0.25 | 0.5                             | 18.2  | 76                       |
| ZY27  | 27                    | 18.5 | 18                      | 750       | 0.25 | 0.5                             | 20.6  | 68                       |
| ZY30  | 30                    | 16.6 | 20                      | 1000      | 0.25 | 0.5                             | 22.5  | 60                       |
| ZY33  | 33                    | 15.1 | 23                      | 1000      | 0.25 | 0.5                             | 25.1  | 55                       |
| ZY36  | 36                    | 13.9 | 25                      | 1000      | 0.25 | 0.5                             | 27.4  | 50                       |
| ZY39  | 39                    | 12.8 | 30                      | 1000      | 0.25 | 0.5                             | 29.7  | 47                       |
| ZY43  | 43                    | 11.6 | 35                      | 1500      | 0.25 | 0.5                             | 32.7  | 43                       |
| ZY47  | 47                    | 10.6 | 40                      | 1500      | 0.25 | 0.5                             | 35.8  | 39                       |
| ZY51  | 51                    | 9.8  | 48                      | 1500      | 0.25 | 0.5                             | 38.8  | 36                       |
| ZY56  | 56                    | 9.0  | 55                      | 2000      | 0.25 | 0.5                             | 42.6  | 32                       |
| ZY62  | 62                    | 8.1  | 60                      | 2000      | 0.25 | 0.5                             | 47.1  | 29                       |
| ZY68  | 68                    | 7.4  | 75                      | 2000      | 0.25 | 0.5                             | 51.7  | 27                       |
| ZY75  | 75                    | 6.7  | 90                      | 2000      | 0.25 | 0.5                             | 56.0  | 24                       |
| ZY82  | 82                    | 6.1  | 100                     | 3000      | 0.25 | 0.5                             | 62.2  | 22                       |
| ZY91  | 91                    | 5.5  | 125                     | 3000      | 0.25 | 0.5                             | 69.2  | 20                       |
| ZY100 | 100                   | 5.0  | 175                     | 3000      | 0.25 | 0.5                             | 76.0  | 18                       |
| ZY110 | 110                   | 4.5  | 250                     | 4000      | 0.25 | 0.5                             | 83.6  | 17                       |
| ZY120 | 120                   | 4.2  | 325                     | 4500      | 0.25 | 0.5                             | 91.2  | 15                       |
| ZY130 | 130                   | 3.8  | 400                     | 5000      | 0.25 | 0.5                             | 98.8  | 14                       |
| ZY140 | 140                   | 3.6  | 500                     | 5500      | 0.25 | 0.5                             | 106.4 | 13                       |
| ZY150 | 150                   | 3.3  | 575                     | 6000      | 0.25 | 0.5                             | 114.0 | 12                       |
| ZY160 | 160                   | 3.1  | 650                     | 6500      | 0.25 | 0.5                             | 121.6 | 11                       |
| ZY170 | 170                   | 2.9  | 675                     | 7000      | 0.25 | 0.5                             | 130.4 | 11                       |
| ZY180 | 180                   | 2.8  | 725                     | 7000      | 0.25 | 0.5                             | 136.8 | 10                       |
| ZY190 | 190                   | 2.6  | 825                     | 8000      | 0.25 | 0.5                             | 144.8 | 10                       |
| ZY200 | 200                   | 2.5  | 900                     | 8000      | 0.25 | 0.5                             | 152.0 | 9.0                      |

**Note :**

( 1 ) Suffix " 5 " indicates  $\pm 5.0\%$  tolerance, suffix " 10 " indicates  $\pm 10.0\%$  tolerance.