

# 400 mW DO-35 Hermetically Sealed Glass Fast Switching Diodes



AXIAL LEAD  
DO35S



DEVICE MARKING DIAGRAM

## Absolute Maximum Ratings T<sub>A</sub> = 25°C unless otherwise noted

| Symbol              | Parameter   | Value       | Units |
|---------------------|---|-------------|-------|
| P <sub>D</sub>      | Power Dissipation   | 400         | mW    |
| T <sub>STG</sub>    | Storage Temperature Range                                 | -65 to +150 | °C    |
| T <sub>J</sub>      | Operating Junction Temperature                            | +150        | °C    |
| W <sub>IV</sub>     | Working Inverse Voltage                                   | 75          | V     |
| I <sub>O</sub>      | Average Rectified Current                                 | 150         | mA    |
| I <sub>FM</sub>     | Non-repetitive Peak Forward Current                       | 450         | mA    |
| I <sub>FSURGE</sub> | Peak Forward Surge Current<br>(Pulse Width = 1.0 μsecond) | 2           | A     |

These ratings are limiting values above which the serviceability of the diode may be impaired.

## Specification Features:

- § Fast Switching Device (T<sub>RR</sub> <4.0 nS)
- § DO-35 Package (JEDEC)
- § Through-Hole Device Type Mounting
- § Hermetically Sealed Glass
- § Compression Bonded Construction
- § All External Surfaces Are Corrosion Resistant And Leads Are Readily Solderable
- § RoHS Compliant
- § Solder Hot Dip Tin (Sn) Terminal Finish
- § Cathode Indicated By Polarity Band

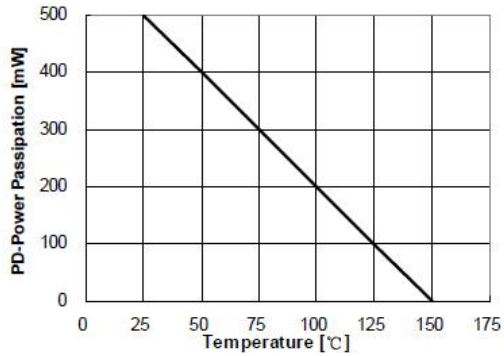


ELECTRICAL SYMBOL

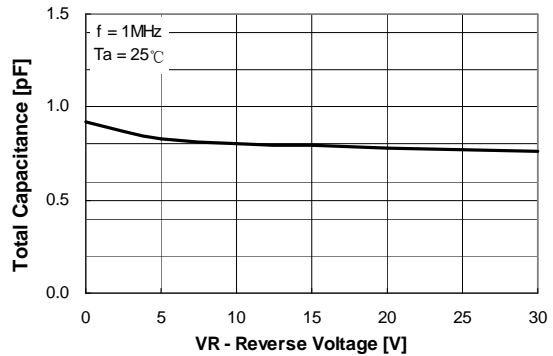
## Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

| Symbol          | Parameter               | Test Condition   | Limits |      | Unit  |
|-----------------|-------------------------|--|--------|------|-------|
|                 |                         |  | Min    | Max  |       |
| B <sub>V</sub>  | Breakdown Voltage       | I <sub>R</sub> =100μA  | 100    |      | Volts |
|                 |                         | I <sub>R</sub> =5μA  | 75     |      |       |
| I <sub>R</sub>  | Reverse Leakage Current | V <sub>R</sub> =20V  |        | 25   | nA    |
|                 |                         | V <sub>R</sub> =75V  |        | 5    | μA    |
| V <sub>F</sub>  | Forward Voltage         | 1N4448S, 1N914BS<br>I <sub>F</sub> =5mA  | 0.62   | 0.72 | Volts |
|                 |                         | 1N4148S<br>I <sub>F</sub> =10mA  |        | 1.0  |       |
|                 |                         | 1N4448S, 1N914BS<br>I <sub>F</sub> =100mA  |        | 1.0  |       |
| T <sub>RR</sub> | Reverse Recovery Time   | I <sub>F</sub> =10mA, V <sub>R</sub> =6V<br>R <sub>L</sub> =100Ω<br>I <sub>RR</sub> =1mA |        | 4    | nS    |
| C               | Capacitance             | V <sub>R</sub> =0V, f=1MHz   |        | 4    | pF    |

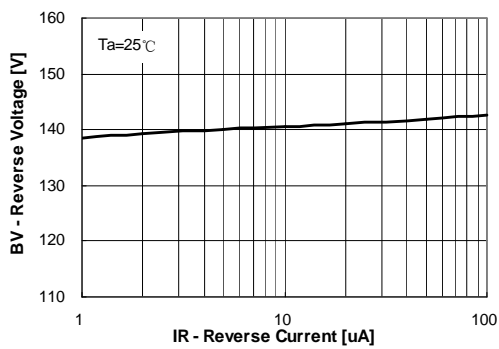
Typical Characteristics



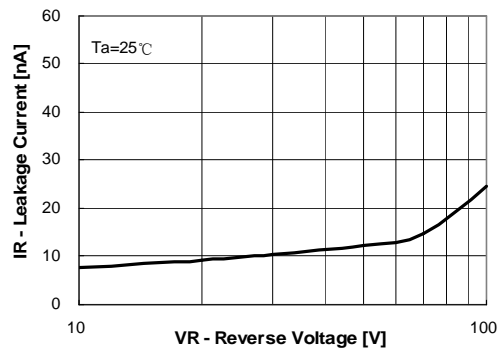
**Figure 1. Power Dissipation vs Ambient Temperature**  
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature



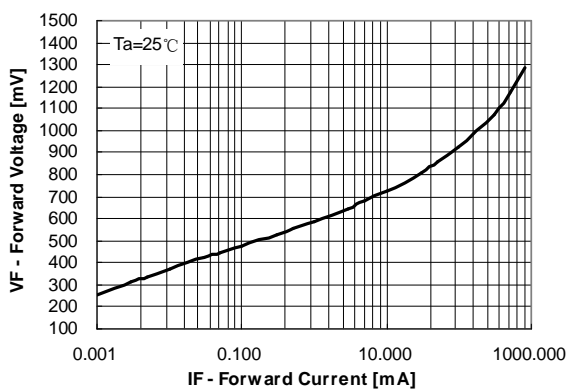
**Figure 2. Total Capacitance**



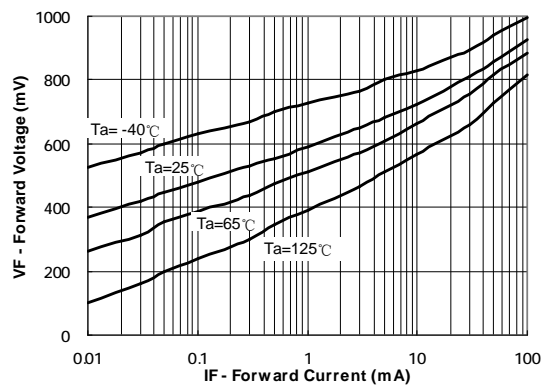
**Figure 3. Reverse Voltage vs Reverse Current**  
BV – 1.0uA to 100uA



**Figure 4. Reverse Current vs Reverse Voltage**  
IR – 10V to 100V

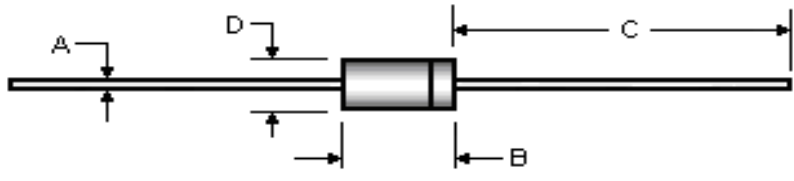


**Figure 5. Forward Voltage vs Forward Current**  
VF – 0.001mA to 800mA



**Figure 6. Forward Voltage vs Ambient Temperature**  
VF – 0.01mA to 100mA (-40 to +125 Deg C)

**Package Outline**

| Package  | Case Outline   |                    |       |               |       |
|----------|--|--------------------|-------|---------------|-------|
| DO-35    |  |                    |       |               |       |
|          | <b>DO-35</b>   |                    |       |               |       |
|          | <b>DIM</b>   | <b>Millimeters</b> |       | <b>Inches</b> |       |
|          |  | Min                | Max   | Min           | Max   |
|          | <b>A</b>   | 0.46               | 0.55  | 0.018         | 0.022 |
|          | <b>B</b>   | ---                | 4.00  | ---           | 0.157 |
| <b>C</b> | 25.40  | 38.10              | 1.000 | 1.500         |       |
| <b>D</b> | 1.53   | 2.00               | 0.060 | 0.079         |       |

**Notes:**

1. All dimensions are within JEDEC standard.
2. DO35 polarity denoted by cathode band.