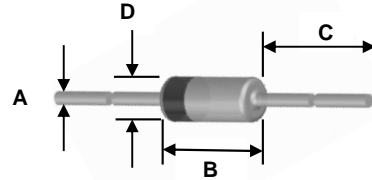


Small Signal Diode

**DO-35 Axial Lead
HERMETICALLY SEALED GLASS**

Features

- ✧ Fast switching device ($T_{rr} < 4.0\text{ns}$)
- ✧ Through-hole device type mounting
- ✧ Moisture sensitivity level 1
- ✧ Solder hot dip Tin (Sn) lead finish
- ✧ Pb free version and RoHS compliant
- ✧ All External Surfaces are Corrosion Resistant and Leads are Readily Solderable

Mechanical Data

- ✧ Case : DO-35 package (SOD-27)
- ✧ High temperature soldering guaranteed : $260^{\circ}\text{C}/10\text{s}$
- ✧ Polarity : Indicated by cathode band
- ✧ Weight : $109 \pm 4\text{ mg}$

| Dimensions | Unit (mm) | | Unit (inch) | |
|------------|-----------|------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.45 | 0.55 | 0.018 | 0.022 |
| B | 3.05 | 5.08 | 0.120 | 0.200 |
| C | 25.4 | 38.1 | 1.000 | 1.500 |
| D | 1.53 | 2.28 | 0.060 | 0.090 |

Ordering Information

| Part No. | Package | Packing |
|-----------|---------|-------------------|
| 1Nxxxx A0 | DO-35 | 5Kpcs / Ammo |
| 1Nxxxx R0 | DO-35 | 10Kpcs / 14" Reel |

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

| Type Number | Symbol | Value | Units |
|--|-----------------|--------------|-----------------------------|
| Power Dissipation | P_D | 500 | mW |
| Repetitive Peak Reverse Voltage | V_{RRM} | 100 | V |
| Non-Repetitive Peak Forward Surge Current Pulse Width 8.3ms | I_{FSM} | 2.0 | A |
| Non-Repetitive Peak Forward Current | I_{FM} | 450 | mA |
| Mean Forward Current | I_O | 150 | mA |
| Thermal Resistance (Junction to Ambient) (Note 1) | $R_{\theta JA}$ | 240 | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature Range | T_J, T_{STG} | -65 to + 150 | $^{\circ}\text{C}$ |

Electrical Characteristics

| Type Number | Symbol | Min | Max | Units |
|---|------------|-----------|--------------------|---------------------|
| Reverse Breakdown Voltage $I_R=100\mu\text{A}$ $I_R=5\mu\text{A}$ | $V_{(BR)}$ | 100 75 | | V |
| Forward Voltage 1N4448, 1N914B 1N4148 1N4448, 1N914B | V_F | 0.62 | 0.72 1.0 1.0 | V |
| Reverse Leakage Current $V_R=20\text{V}$ $V_R=75\text{V}$ | I_R | | 25 5.0 | nA μA |
| Junction Capacitance $V_R=0, f=1.0\text{MHz}$ | C_J | | 4.0 | pF |
| Reverse Recovery Time (Note 2) | T_{rr} | | 4.0 | ns |

Notes:1. Valid provided that electrodes are kept at ambient temperature

Notes:2. Reverse Recovery Test Conditions: $I_F=10\text{mA}$, $I_R=60\text{mA}$, $R_L=100\Omega$, $I_{RR}=1\text{mA}$

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

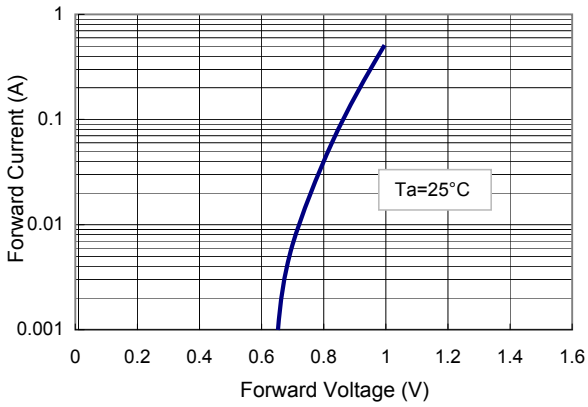


FIG 2 Reverse Current vs Reverse Voltage

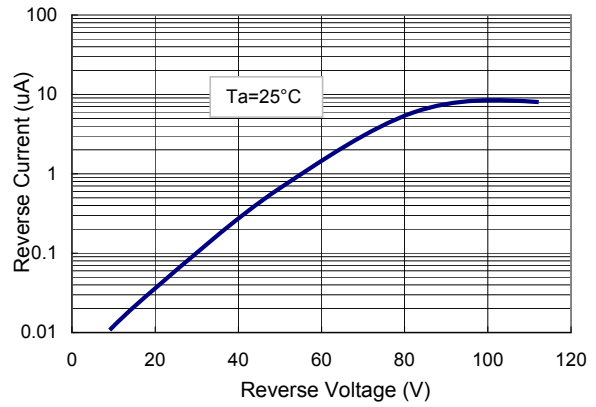


FIG 3 Admissible Power Dissipation Curve

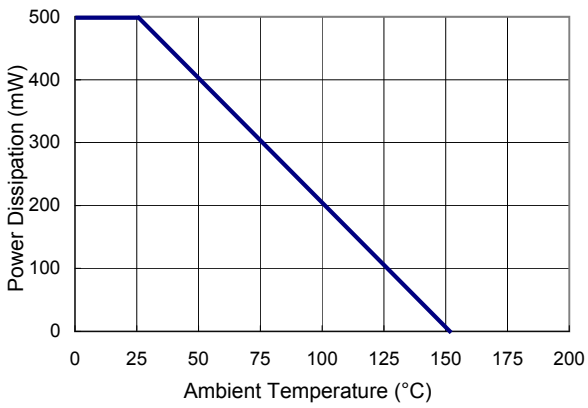


FIG 4 Typical Junction Capacitance

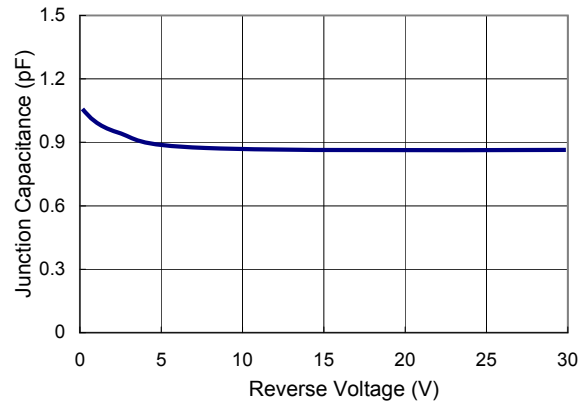


FIG 5 Forward Resistance vs. Forward Current

