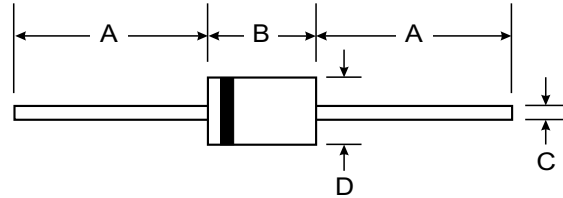


FAST SWITCHING DIODE

Features

- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction



Mechanical Data

- Case: DO-35
- Leads: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.13 grams (approx.)

| DO-35 | | |
|----------------------|-------|------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | — | 4.00 |
| C | — | 0.60 |
| D | — | 2.00 |
| All Dimensions in mm | | |

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | 1N4148 | 1N4448 | Unit |
|---|---------------------------------|-------------|--------|----------------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 100 | | V |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 75 | | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 53 | | V |
| Forward Continuous Current (Note 1) | I_{FM} | 300 | 500 | mA |
| Average Rectified Output Current (Note 1) | I_O | 150 | | mA |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$ @ $t = 1.0\mu\text{s}$ | I_{FSM} | 1.0 2.0 | | A |
| Power Dissipation (Note 1) Derate Above 25°C | P_d | 500 1.68 | | mW mW/ $^\circ\text{C}$ |
| Thermal Resistance, Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 300 | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +175 | | $^\circ\text{C}$ |

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|------------------------------|----------|----------------|-----------------------|---|--|
| Maximum Forward Voltage | V_{FM} | — 0.62 — | 1.0 0.72 1.0 | V | $I_F = 10\text{mA}$ $I_F = 5.0\text{mA}$ $I_F = 100\text{mA}$ |
| Maximum Peak Reverse Current | I_{RM} | — | 5.0 50 30 25 | μA μA μA nA | $V_R = 75\text{V}$ $V_R = 70\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}$ |
| Capacitance | C_j | — | 4.0 | pF | $V_R = 0, f = 1.0\text{MHz}$ |
| Reverse Recovery Time | t_{rr} | — | 4.0 | ns | $I_F = 10\text{mA}$ to $I_R = 1.0\text{mA}$ $V_R = 6.0\text{V}, R_L = 100\Omega$ |

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

FAST SWITCHING DIODE

Typical Characteristics

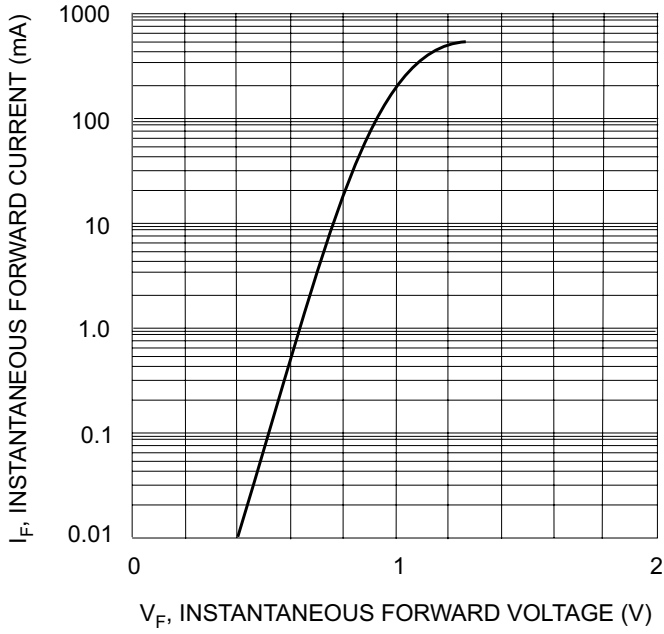


Fig. 1 Forward Characteristics

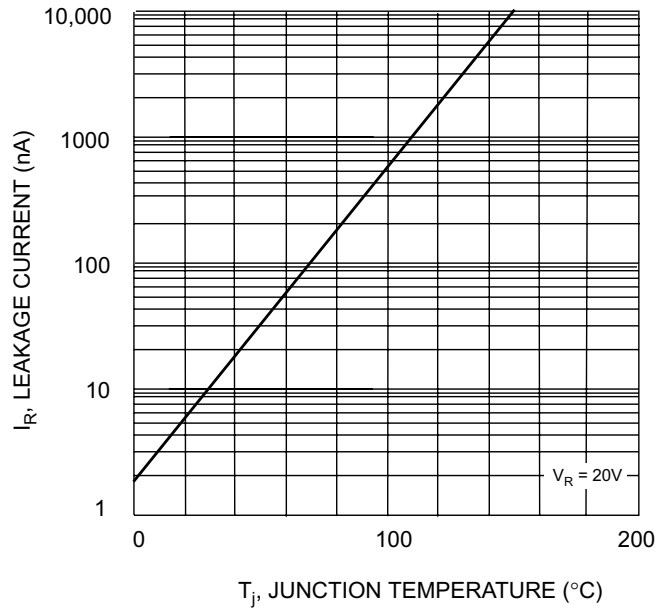


Fig. 2, Leakage Current vs Junction Temperature