



1N4148

Switching Diode

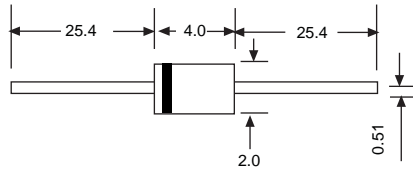
DO-35

Features

- *Fast switching speed
- *General purpose rectification
- *Silicon epitaxial planar construction

Mechanical Data

- *Cases:DO-35
- *Lead:Solderable per MIL- STD-202, Method 208
- *Polarity:Cathode band
- *Marking:Type number
- *Weight:0.13 grams (approx.)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Maximun Ratings

| Type Number | Symbol | 1N4148 | Units |
|---|----------------|-------------|-------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 100 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 75 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Block Voltage | V_R | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 53 | V |
| Average Rectifier Output Current | I_o | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t=10ms$ | I_{FSM} | 500 | mA |
| Power Dissipation (Note 1)at $T_{amb}=25^{\circ}C$ | P_d | 500 | mW |
| Thermal Resistance Junction to Ambient Air | R_{JA} | 350 | K/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to +175 | $^{\circ}C$ |

Electrical Characteristics

| Type Number | Symbol | Min | Max | Units |
|--|----------|-----|-----------------------|-------------------------------------|
| Forward Voltage @ $I_F=10mA$ | V_F | - | 1.0 | V |
| Peak Reverse Current $V_R=75V$ $V_R=70V, T_J=150^{\circ}C$ $V_R=20V, T_J=150^{\circ}C$ $V_R=20V$ | I_R | - | 5.0 50 30 25 | μA μA μA nA |
| Capacitance $V_R=0, f=1.0MHz$ | C_j | - | 4.0 | pF |
| Reverse Recovery Time (Note 1) | t_{rr} | - | 4.0 | nS |

NOTES: 1. Reverse Recovery Test Conditions: $I_F=10mA$ to $I_R=1.0mA$ $V_R=6.0V, R_{LI}=100^{\circ}$

RATING AND CHARACTERISTIC CURVES 1N4148



FIG.1-FORWARD CHARACTERISTICS CURVE

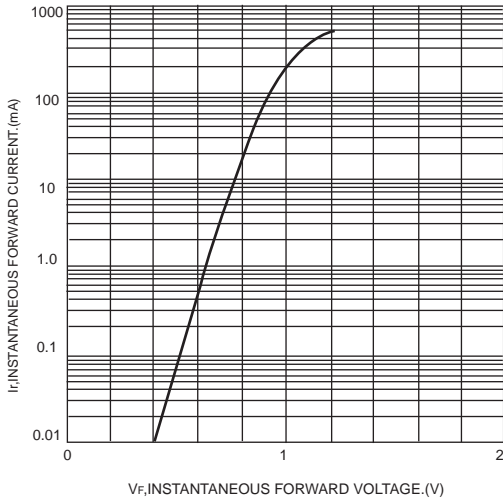


FIG.1-FORWARD CHARACTERISTICS CURVE

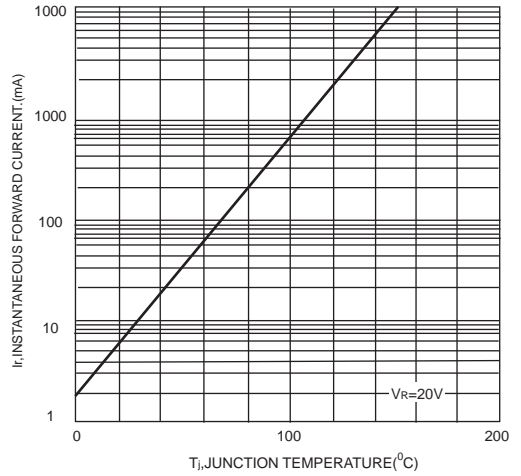


FIG.3-ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

