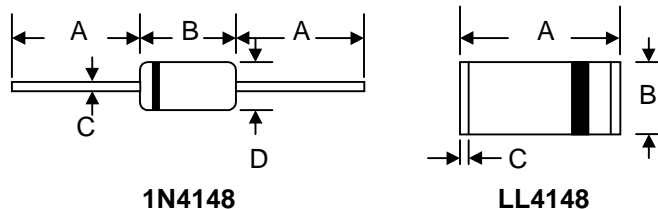


1N4148 / LL4148

FAST SWITCHING DIODE

Features

- Fast Switching Speed
- Glass Package Version for High Reliability
- High Conductance
- Available in Both Through-Hole and Surface Mount Versions



Mechanical Data

- Case: DO-35, MiniMELF
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: DO-35 0.13 grams
MiniMELF 0.05 grams
- Marking: Cathode Band Only

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

| MiniMELF | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.70 |
| B | 1.30 | 1.60 |
| C | 0.28 | 0.50 |
| All Dimensions in mm | | |

Maximum Ratings @T_A=25°C unless otherwise specified

| Characteristic | Symbol | Value | 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 | mA |
| Rectified Current (Average), Half Wave Rectification with Resistive Load and f ≥ 50MHz (Note 1) | I _O | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0s @ t = 1.0μs | I _{FSM} | 1.0 2.0 | A |
| Power Dissipation (Note 1) Derate Above 25°C | P _d | 500 1.68 | mW mW/°C |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 300 | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +175 | °C |

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

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|------------------------------|----------|-----|-----------------------|--|--|
| Maximum Forward Voltage | V_{FM} | — | 1.0 | V | $I_F = 10\text{mA}$ |
| 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 $I_R = 1.0\text{mA}$ $V_R = 6.0\text{V}, R_L = 100\Omega$ |

Note: 1. Diode on Ceramic Substrate 10mm x 8mm x 0.7mm.

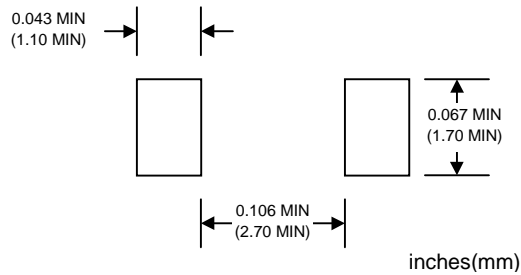
ORDERING INFORMATION

| Product No.♦ | Package Type | Shipping Quantity |
|------------------|--------------|-------------------|
| 1N4148-T3 | DO-35 | 10000/Tape & Reel |
| 1N4148-TB | DO-35 | 5000/Tape & Box |
| 1N4148 | DO-35 | 1000 Units/Box |
| LL4148-T1 | MiniMELF | 2500/Tape & Reel |
| LL4148-T3 | MiniMELF | 10000/Tape & Reel |

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT (MiniMELF)



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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