



MM4148

SURFACE MOUNT SWITCHING DIODE

REVERSE VOLTAGE: 75V

FORWARD CURRENT: 150mA

**TECHNICAL
SPECIFICATION**

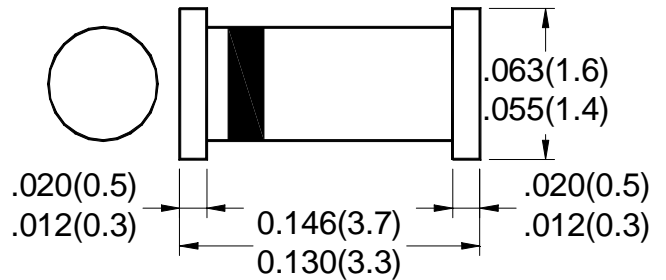
FEATURES

- Ideal for surface mount pick and place application
- Small glass structure ensures high reliability
- Fast switching
- Low leakage
- High temperature soldering guaranteed:
250°C/10S/9.5mm lead length at 5 lbs tension

MECHANICAL DATA

- Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- Case: Glass, hermetically sealed
- Polarity: Color band denotes cathode
- Mounting position: Any

MINI MELF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

| RATINGS | SYMBOL | VALUE | UNITS |
|---|------------------|------------|----------------------------|
| Reverse Voltage | V_R | 75 | V |
| Peak Reverse Voltage | V_{RM} | 100 | V |
| Forward Current (average) | I_O | 150 | mA |
| Repetitive Forward Peak Current | I_{FRM} | 300 | mA |
| Power Dissipation at $T_a=25^\circ\text{C}$ | P_{tot} | 500 | mW |
| Forward Voltage ($I_F=10\text{mA}$) | V_F | 1 | V |
| Reverse Current ($V_R=20\text{V}$) | I_{R1} | 25 | nA |
| Reverse Current ($V_R=75\text{V}$) | | 5 | mA |
| Reverse Current ($V_R=20\text{V}, T_J=100^\circ\text{C}$) | I_{R2} | 50 | mA |
| Capacitance (note 1) | C_t | 4 | pF |
| Reverse Recovery Time (note 2) | t_{rr} | 4 | nS |
| Thermal Resistance (Junction to ambient air) | $R_{\theta(ja)}$ | 0.35 | $^\circ\text{C}/\text{mW}$ |
| Voltage Rise (note 3) | V_{fr} | 2.5 | V |
| Rectification Efficiency (note 4) | h_v | 0.45 | - |
| Operating Junction and Storage Temperature Range | T_{STG}, T_J | -55 ~ +175 | $^\circ\text{C}$ |

Notes:

1. $V_R=0\text{V}, f=1\text{ MHz}$
2. $I_F=10\text{mA}$ to $I_R=1\text{mA}, V_R=6\text{V}, R_L=100\Omega$
3. When switching on tested with 50mA forward pulses $t_p=0.1\mu\text{s}$, Rise Time < 30ns, $f_p=5$ to 100KHz
4. $f=100\text{MHz}, V_{RF}=2\text{V}$