MCL4148 / MCL4448

SMALL SIGNAL SWITCHING DIODE

FEATURES

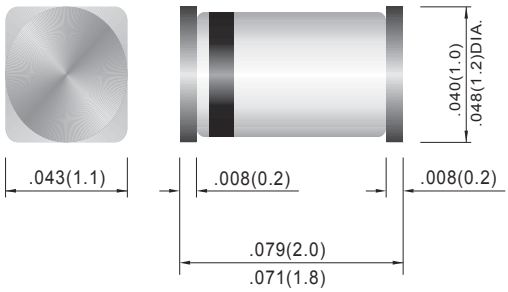
- Silicon epitaxial planar diode
- Fast switching diodes
- 500mw power dissipation
- High temperature soldering guaranteed 250℃/10S at terminals

MECHANICAL DATA

Case: MICRO MELF, Glass
Terminals: Solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position: Any
Weight :0.011 grams

RoHS Compliant

MICRO-MELF



Dimensions in inches and (millimeters)

Maximum Ratings (T_A=25°C Unless otherwise noted)

PARAMETER	SYMBOL	MCL4148 / MCL4448	UNITS
Peak Reverse Voltage	V_{RM}	100	V
Maximum Average Forward Current at Ta=25 °C And f ≥50Hz	$I_{F(AV)}$	150	mA
Surge Forward Current at t < 1s and Tj= =25 °C	I_{FSM}	500	mA
Power Dissipation at Tamb= 25 °C	P_{TOT}	500	mW
Maximum Forward Voltage at I_F =10mA	V_F	1.0	V
Maximum Leakage Current at V_R=20V at V_R=75V at V_R=20V ,T_J= 150°C	I_R	 25 5 50	 nA μA μA
Maximum Capacitance at V_F =V_R=0	C_J	4	pF
Maximum Reverse Recovery Time From I_F =-I_R =10mA to I_{RR}=-1mA ,V_R=6V R_L=100 Ω	t_{rr}	4	ns
Typical Thermal Resistance	$R_{\theta JA}$	300	°C / W
Junction Temperature and Storage Temperature Range	T_J,T_S	-65 to +175	°C

NOTE:

1. CJ at V_R=0, f=1MHZ
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

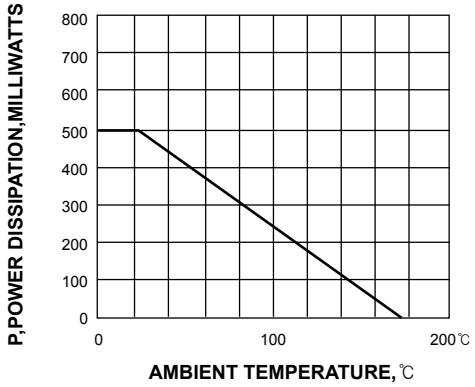

FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE (TYPICAL VALUES)

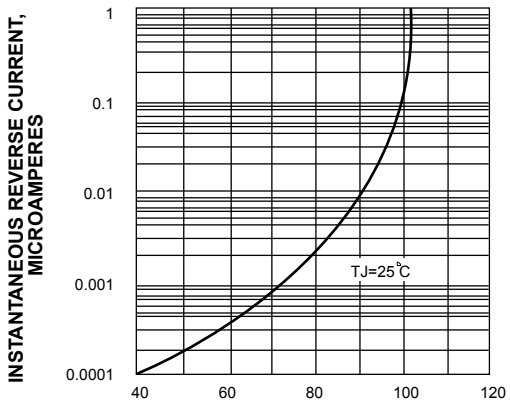

FIG. 3-FORWARD CHARACTERISTICS

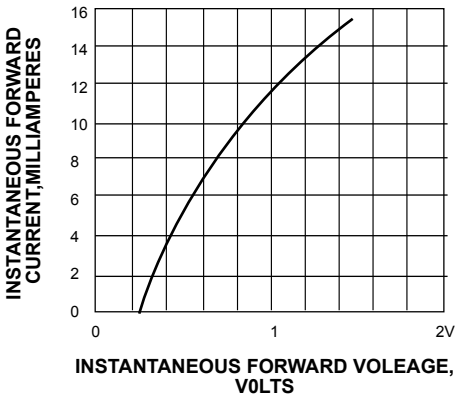

FIG. 4-RELATIVE CAPACTANCE VERSUS REVERSE VOLTAGE

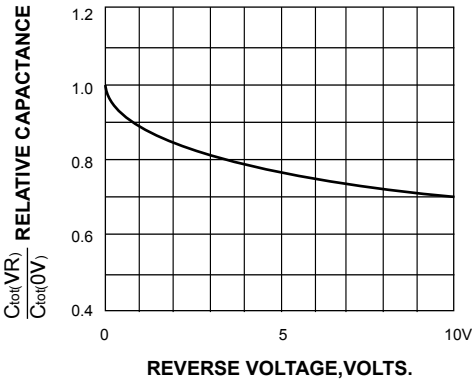

FIG. 5-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION