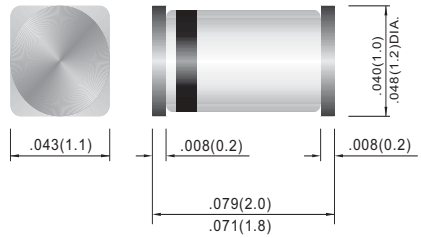
MCL4148

FAST SWITCHING SURFACE MOUNT DIODES

VOLTAGE 100 Volts **POWER** 500 mWatts

MICRO-MELF Unit : inch (mm)



FEATURES

- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxal Planar Construction.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: MICRO MELF, Glass
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Weight: 0.011 grams
- Packing information

T/R - 2.5K per 7" plastic reel

T/R - 10K per 13" plastic reel

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TJ =25°C unless otherwise noted)

PARAMETER	SYMBOL	MCL4148	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 ,TJ= 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 VR=0, f=1MHZ
2. From IF=10mA to IR=1mA, VR=6Volts, RL=100Ω

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RATING AND CHARACTERISTIC CURVES

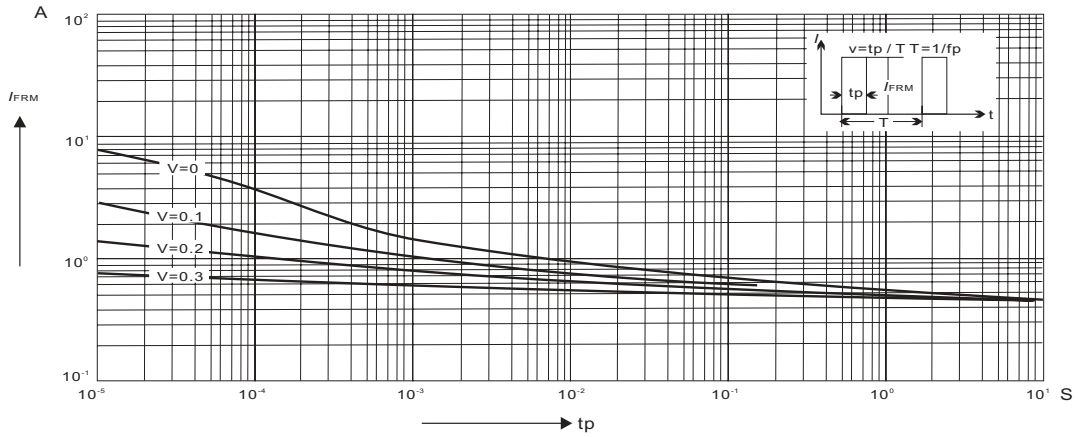

Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

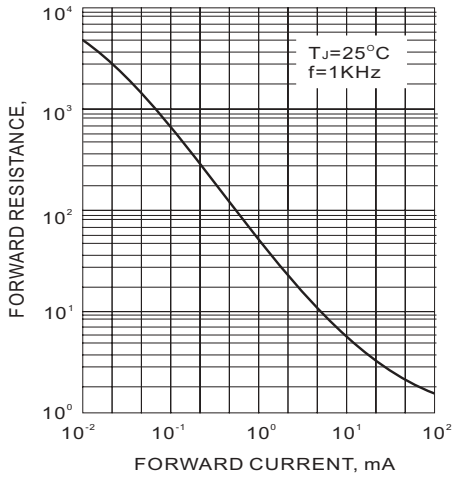

Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

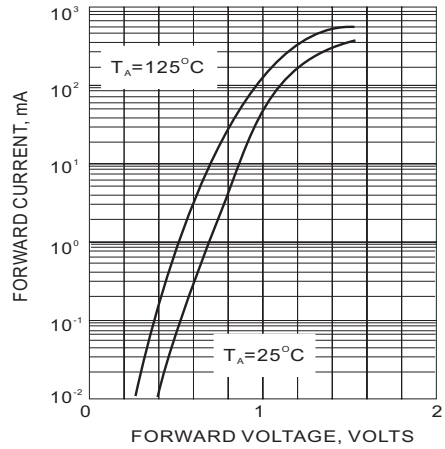

Fig.3 FORWARD CHARACTERISTICS

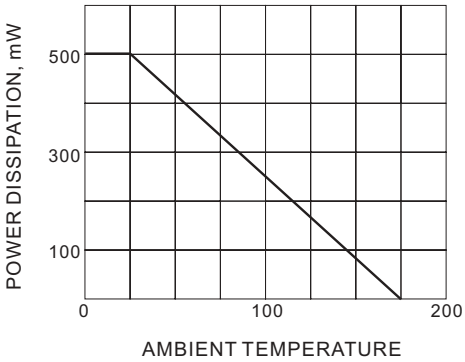

Fig.4 DERATING CURVE

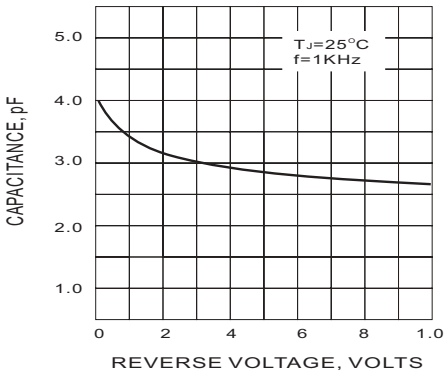

Fig.5 TYPICAL JUNCTION CAPACITANCE

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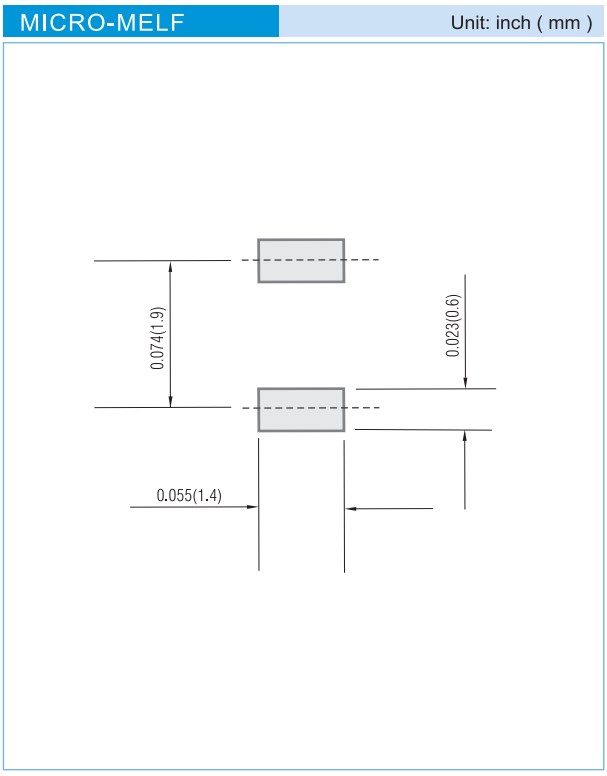
MOUNTING PAD LAYOUT

MICRO-MELF Unit: inch (mm)



ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 2.5K per 7" plastic Reel

LEGAL STATEMENT