

MCL4148

FAST SWITCHING SURFACE MOUNT DIODES

VOLTAGE 100 Volts **POWER** 500 mWatts

MICRO-MELF Unit : inch (mm)

FEATURES

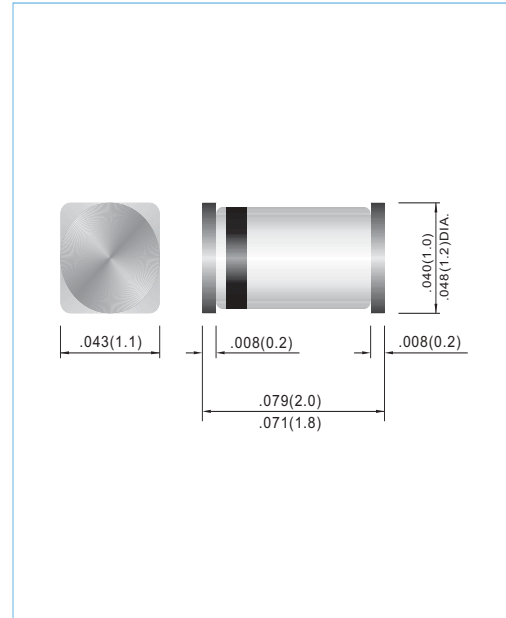
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- In compliance with EU RoHS 2002/95/EC directives

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 (T_J=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 T _J = 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 _{θJA}	300	°C / W
Junction Temperature and Storage Temperature Range	T _J ,T _S	-65 to +175	°C

NOTE:

1. C_J 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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RATING AND CHARACTERISTIC CURVES

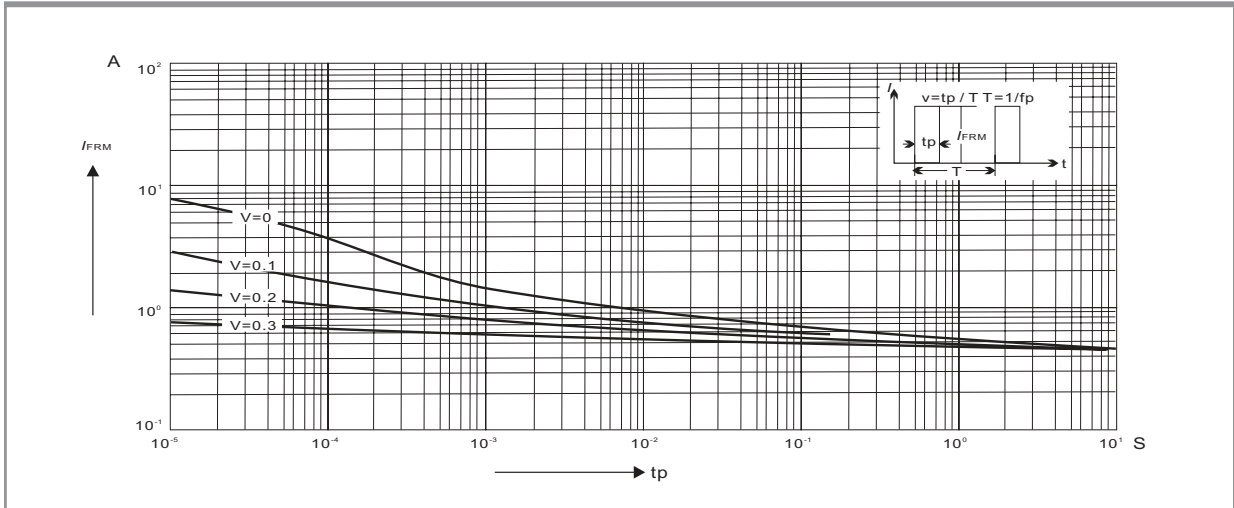


Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

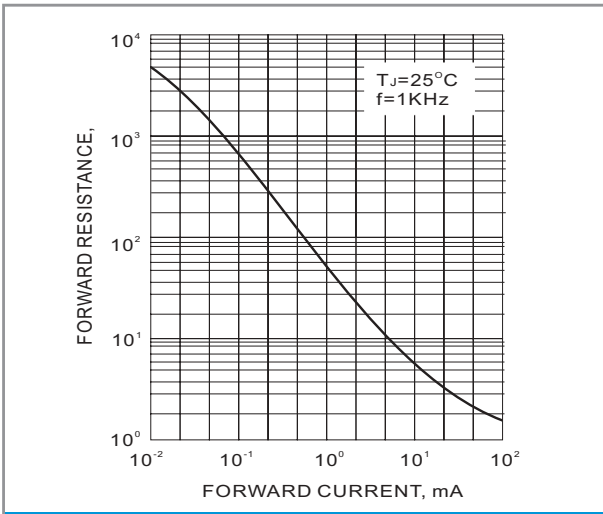


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

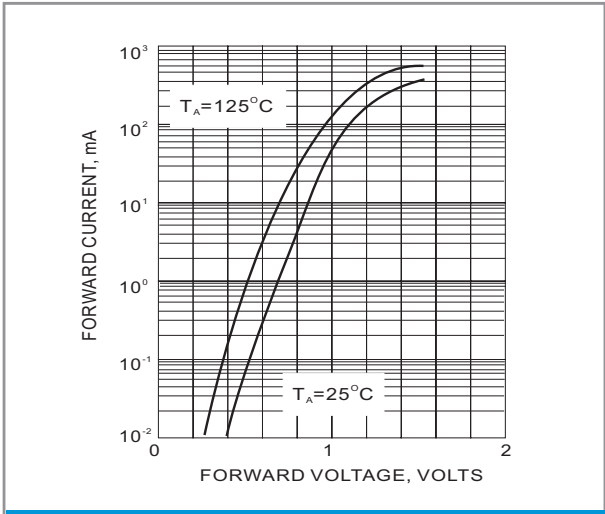


Fig.3 FORWARD CHARACTERISTICS

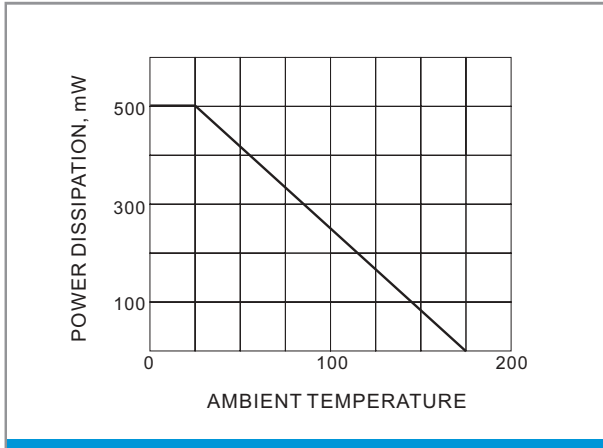


Fig.4 DERATING CURVE

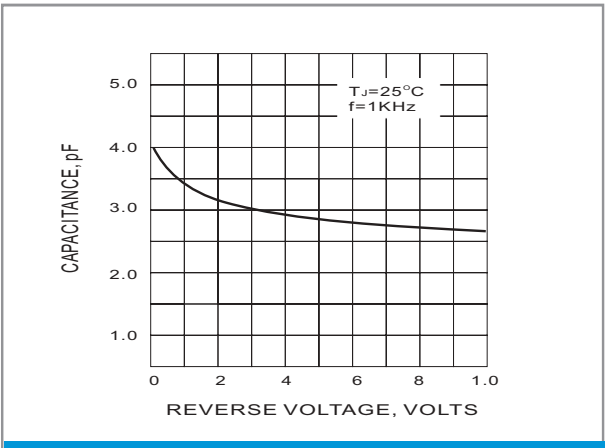
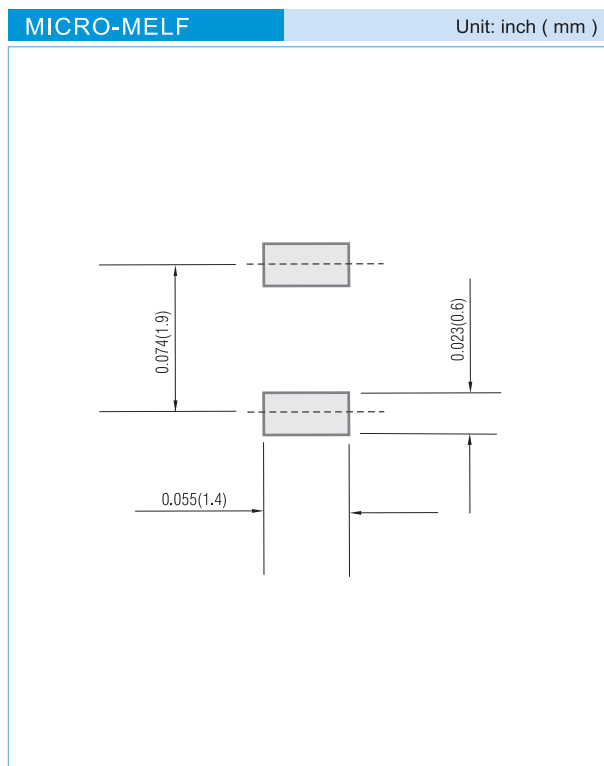


Fig.5 TYPICAL JUNCTION CAPACITANCE

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 2.5K per 7" plastic Reel

LEGAL STATEMENT

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