

MCL4148

FAST SWITCHING SURFACE MOUNT DIODES

VOLTAGE 100 Volts **POWER** 500 mWatts

MICRO-MELF Unit : inch (mm)

FEATURES

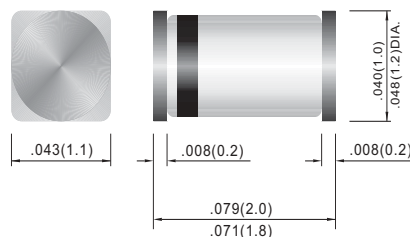
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- In compliance with EU RoHS 2002/95/EC directives

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

MCL4148

RATING AND CHARACTERISTIC CURVES

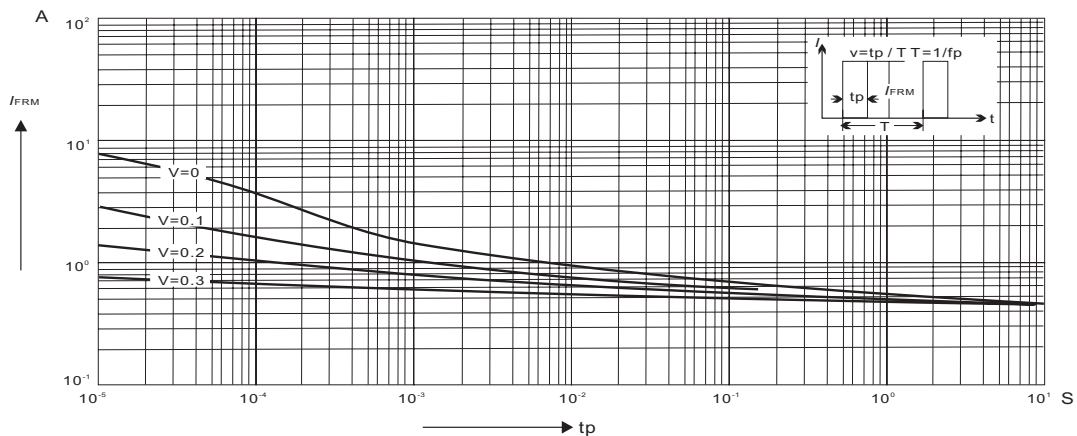


Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

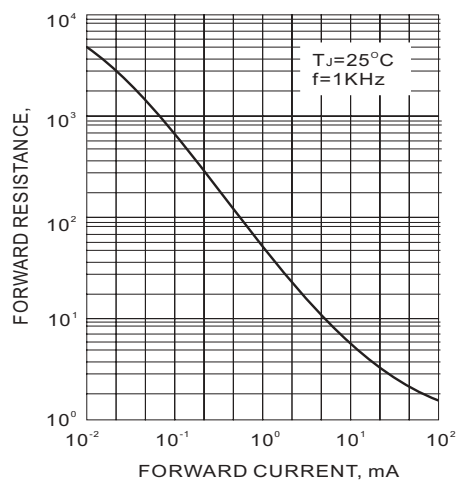


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

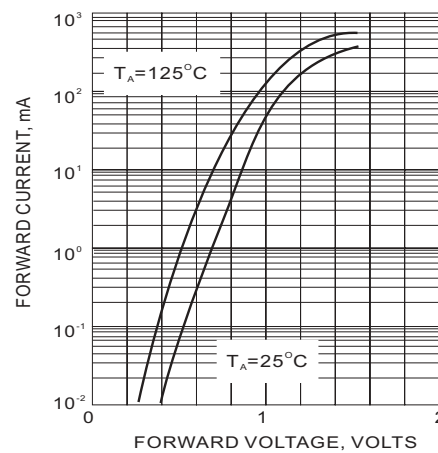


Fig.3 FORWARD CHARACTERISTICS

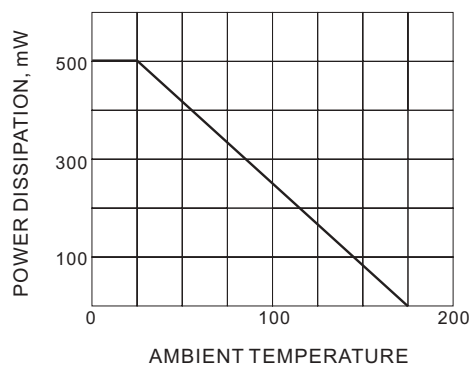


Fig.4 DERATING CURVE

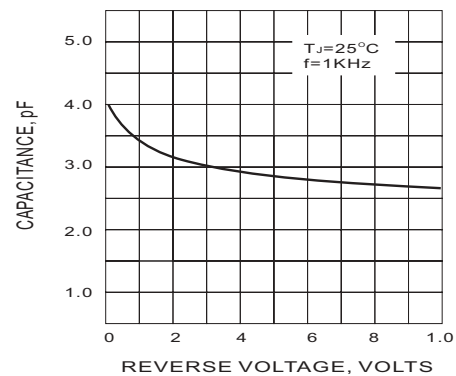


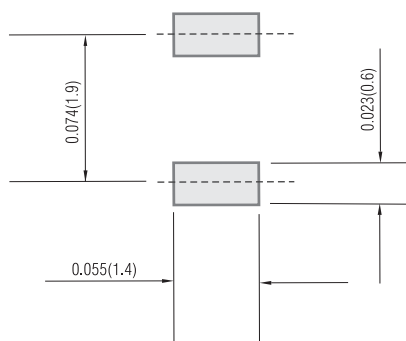
Fig.5 TYPICAL JUNCTION CAPACITANCE

MCL4148

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

Copyright PanJit International, Inc 2011

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.