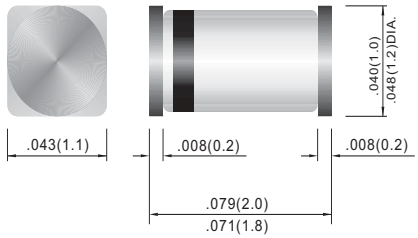
MCL4148

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.
- Lead free in compliance with EU RoHS 2011/65/EU directive

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

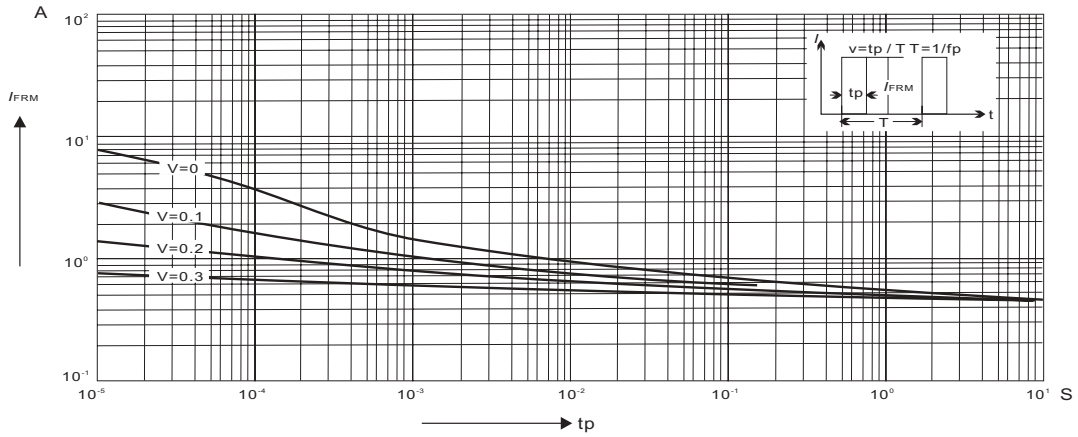


Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

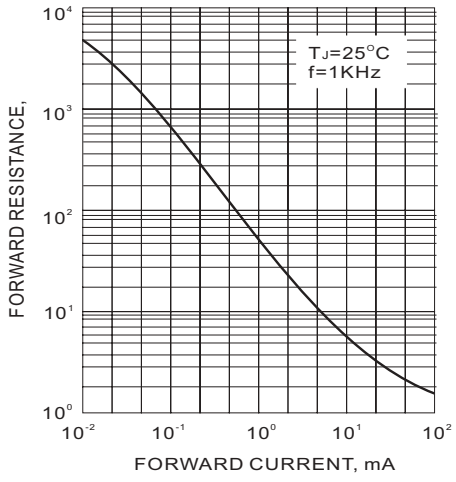


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

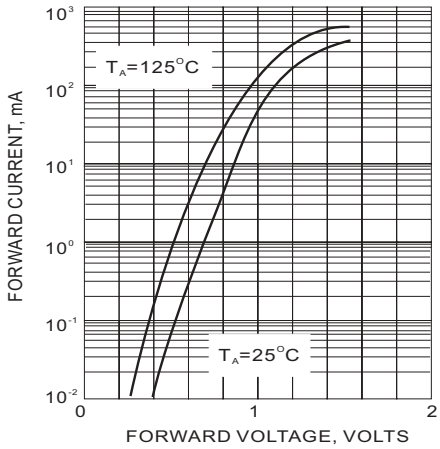


Fig.3 FORWARD CHARACTERISTICS

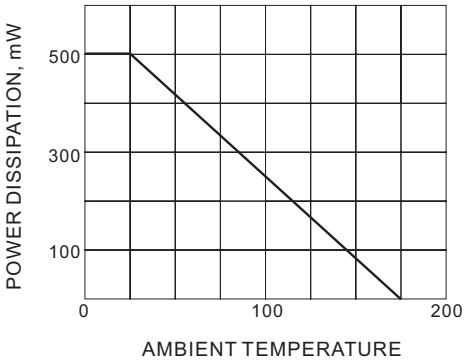


Fig.4 DERATING CURVE

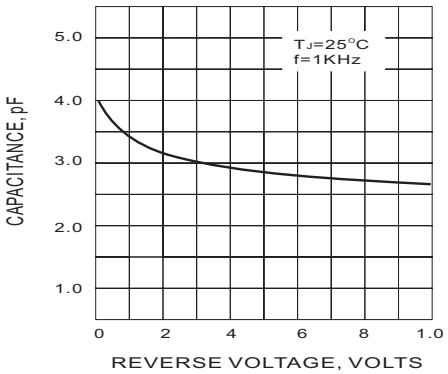
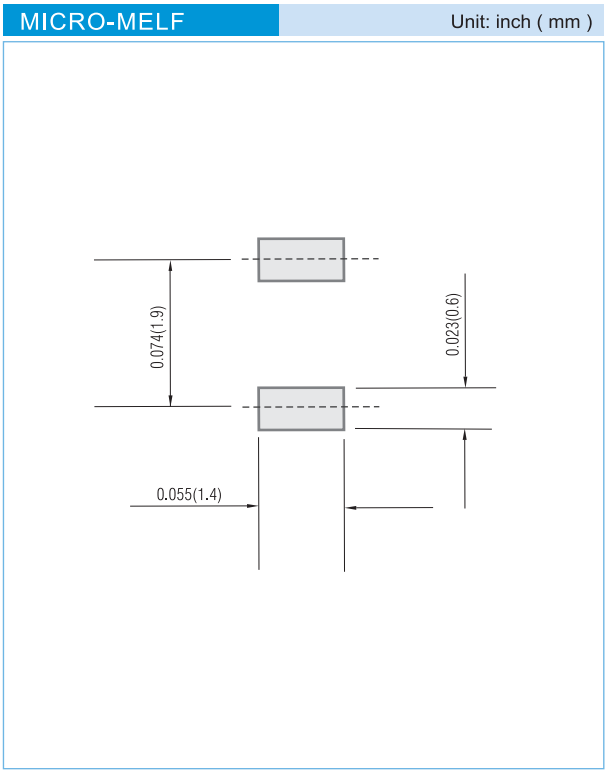


Fig.5 TYPICAL JUNCTION CAPACITANCE

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

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Part No_packing code_Version

MCL4148_R1_10001

MCL4148_R2_10001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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