

MCL4148

FAST SWITCHING SURFACE MOUNT DIODES

VOLTAGE 100 Volt **POWER** 500 mWatt

MICRO-MELF Unit : inch (mm)

FEATURES

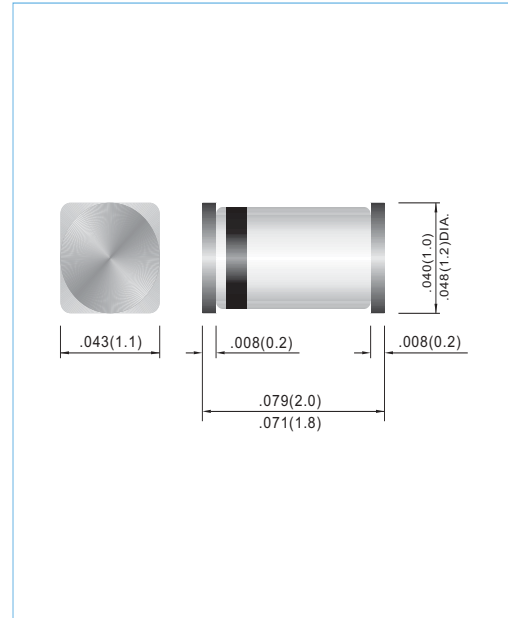
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- Lead free in compliance with EU RoHS 2.0

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 _{RM} = 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

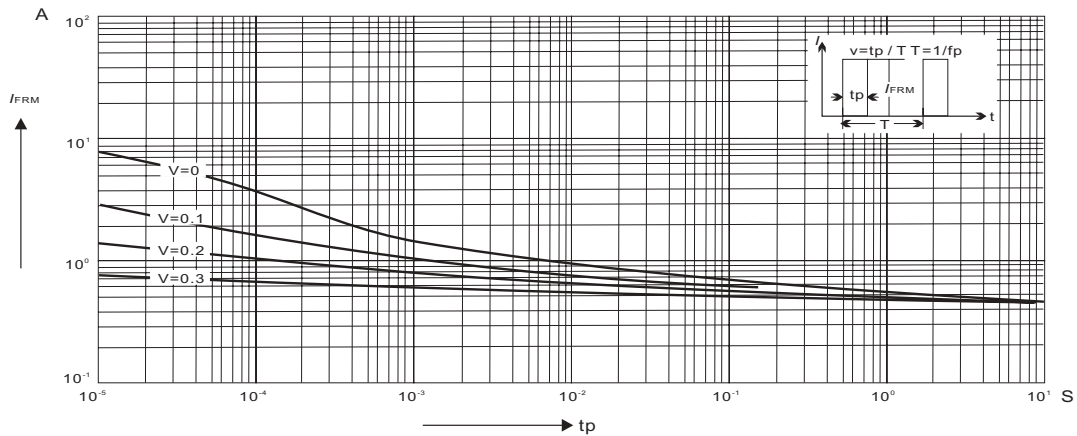


Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

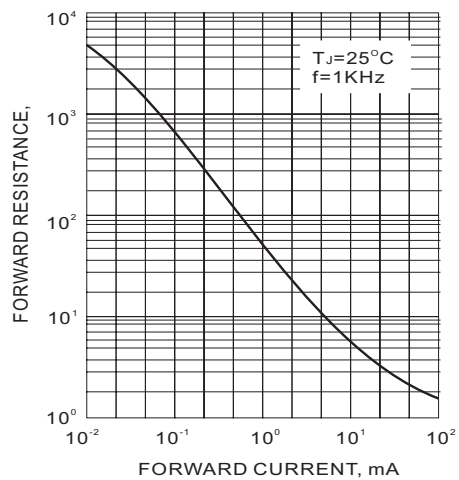


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

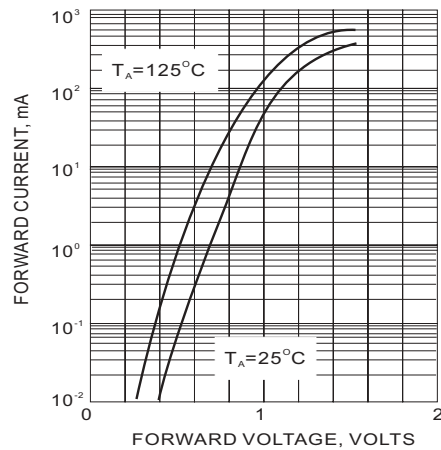


Fig.3 FORWARD CHARACTERISTICS

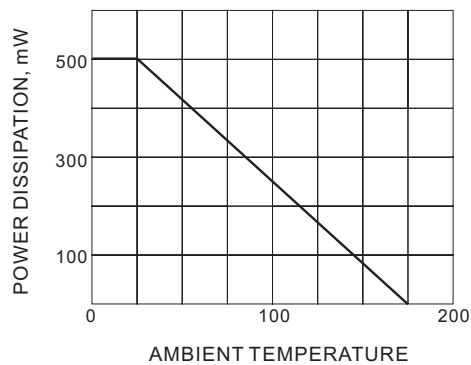


Fig.4 DERATING CURVE

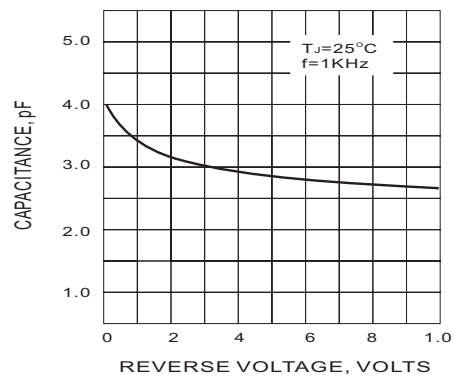


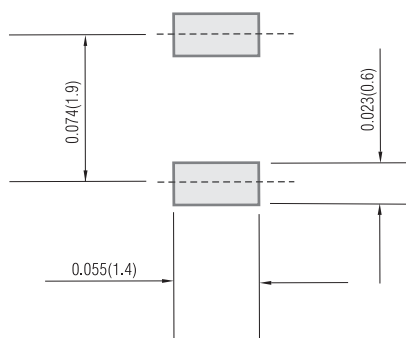
Fig.5 TYPICAL JUNCTION CAPACITANCE

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MOUNTING PAD LAYOUT

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 XXXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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