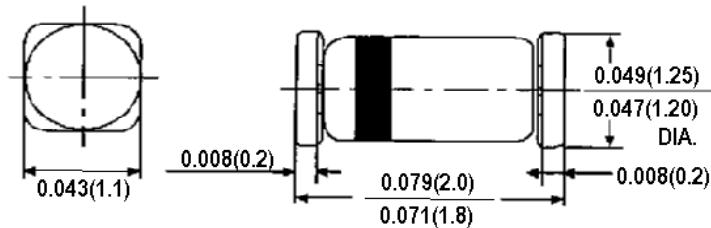


MCL4148 Micro MELF SWITCHING Diode

MICRO MELF (Molded Glass)

Unit: inch (mm)



Absolute Maximum Ratings

	Symbol	Value	UNIT
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Rectifier Current (Average) Half Wave Rectification w/Resist Load at $T_{amb}=25\text{degC}$ and $F>/ 50\text{Hz}$	I_O	150	mA
Surge Forward Current @ $t<1\text{s}$ and $T_j=25\text{degC}$	I_{FSM}	500	mA
Power Dissipation at $T_{amb}= 25\text{degC}$	P_{tot}	500	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_s	-65 to +175	°C

Characteristics at $T_j=25\text{ }^\circ\text{C}$

	Symbol	Min	Max	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Leakage Current at $V_R = 20\text{V}$	I_R	-	25	nA
at $V_R = 75\text{V}$	I_R	-	5	uA
at $V_R = 20\text{V}$, $T_j = 150\text{ }^\circ\text{C}$	I_R	-	50	uA
Reverse Breakdown Voltage tested with 100uS Pulses	$V_{(BR)R}$	100	-	V
Capacitance at $V_F=V_R= 0$	C_{tot}	-	4	pF
Voltage Rise when Switching On Tested with 50mA Forward Pulses $T_p=0.1\text{us}$, RiseTime<30ns, fp=5~100kHz	V_{fr}	-	2.5	V
Reverse Recovery Time From $I_F=-I_R=10\text{mA}$ to $I_{RR}=-1\text{mA}$ $V_R=6\text{V}$ $R_L=100\text{ ohms}$	t_{rr}	-	4	ns
Thermal Resistance Function to Ambient Air	R_{thA}	-	0.35	K/mW
Rectification Efficiency at $f=100\text{MHZ}$, $V_{RF}= 2\text{V}$	η_v	0.45	-	-