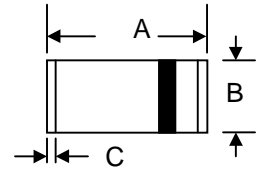




Features

- Fast Switching Speed
- Glass Package Version for High Reliability
- High Conductance
- Available in Both Through-Hole and Surface Mount Versions



LL4148

Mechanical Data

- Case: MiniMELF
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: MiniMELF 0.05 grams
- Marking: Cathode Band Only
- **Lead Free: For RoHS / Lead Free Version,**

MiniMELF		
Dim	Min	Max
A	3.30	3.50
B	1.40	1.50
C	0.26	0.32
All Dimensions in mm		

Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	75	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	300	mA
Rectified Current (Average), Half Wave Rectification with Resistive Load and f ≥ 50MHz (Note 1)	I <sub>o</sub>	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0s @ t = 1.0μs	I <sub>FSM</sub>	1.0 2.0	A
Power Dissipation (Note 1) Derate Above 25°C	P <sub>d</sub>	500 1.68	mW mW/°C
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	300	K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +175	°C



**Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	$V_{FM}$	—	1.0	V	$I_F = 10\text{mA}$
Maximum Peak Reverse Current	$I_{RM}$	—	5.0	$\mu\text{A}$	$V_R = 75\text{V}$ $V_R = 70\text{V}, T_j = 150^{\circ}\text{C}$ $V_R = 20\text{V}, T_j = 150^{\circ}\text{C}$ $V_R = 20\text{V}$
			50	$\mu\text{A}$	
			30	$\mu\text{A}$	
			25	nA	
Capacitance	$C_j$	—	4.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	4.0	ns	$I_F = 10\text{mA}$ to $I_R = 1.0\text{mA}$ $V_R = 6.0\text{V}, R_L = 100\Omega$

Note: 1. Diode on Ceramic Substrate 10mm x 8mm x 0.7mm.



## Typical Characteristics Curves

Fig.1- Power Derating Curve

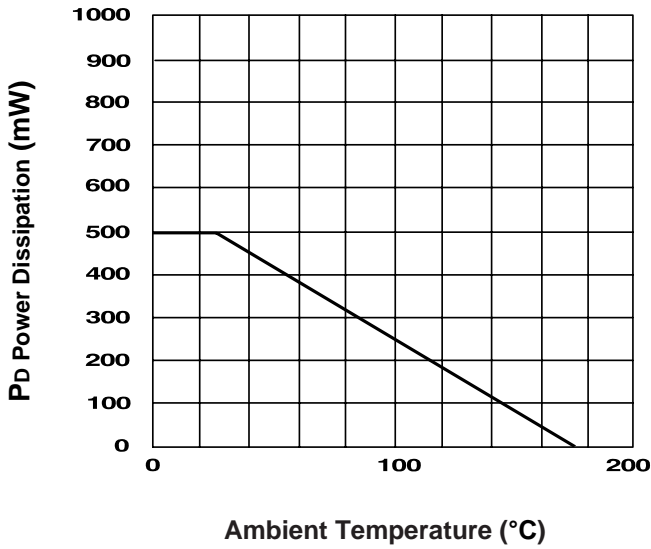


Fig.2- Typical Forward Characteristics

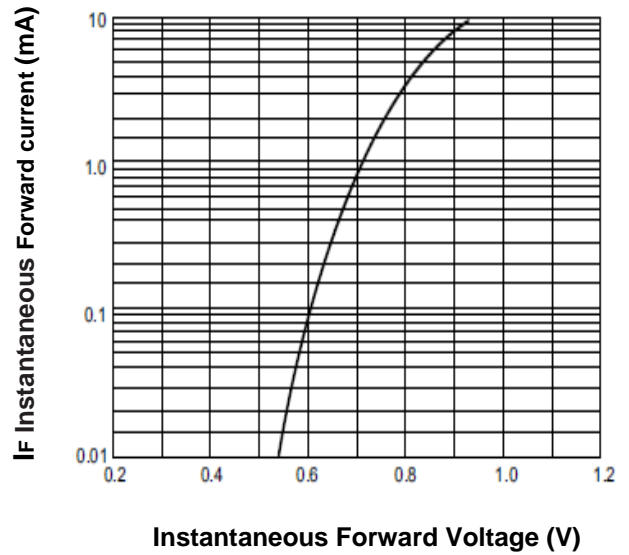


Fig.3- Typical junction capacitance

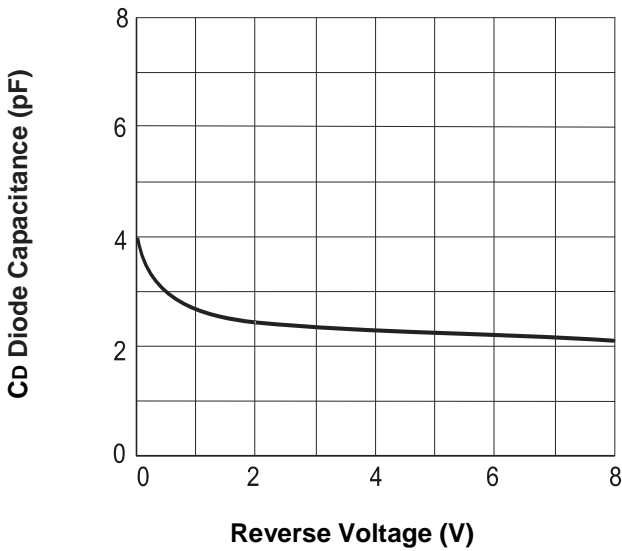


Fig.4- Typical Reverse Characteristics

