

LL4148

500mW High Speed Switching Diode 100 Volt

Features

- Low Current Leakage, Low Cost
- Compression Bond Construction
- Surface Mount Applications
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant.)

Maximum Ratings

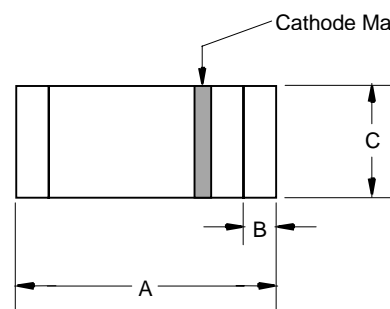
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 500K/W Junction To Ambient
Tested on PC Board 50mm x 50mm x 1.6mm

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	75V	
Breakdown Voltage	V_{BR}	100V	$I_R = 100 \mu A$
Average Forward Current	I_O	150mA	
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	175°C	
Peak Forward Surge Current	I_{FSM}	2.0A	$t_p = 1.0 \mu s$
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 10mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 5.0 μA 50 μA	$V_R = 20V; T_J = 25^\circ C$ $V_R = 75V; T_J = 25^\circ C$ $V_R = 20V; T_J = 150^\circ C$
Maximum Junction Capacitance	C_J	4.0pF	Measured at 1.0MHz, $V_R = 0V$
Maximum Reverse Recovery Time	T_{rr}	4.0ns	$I_F = 10mA; V_R = 6V$ $R_L = 100\Omega$

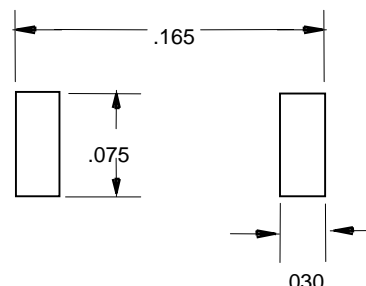
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(c)-I.

MiniMELF



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.130	.146	3.30	3.70	
B	.008	.016	.20	.40	
C		.059		1.50	∅

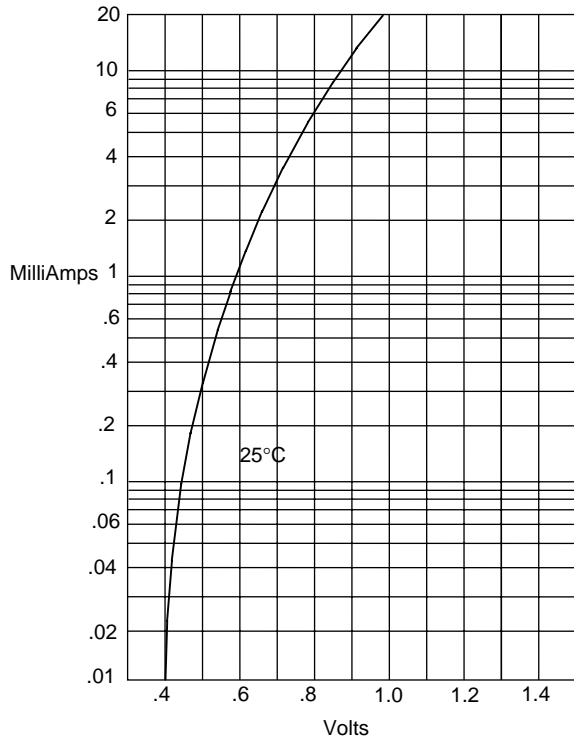
SUGGESTED SOLDER PAD LAYOUT





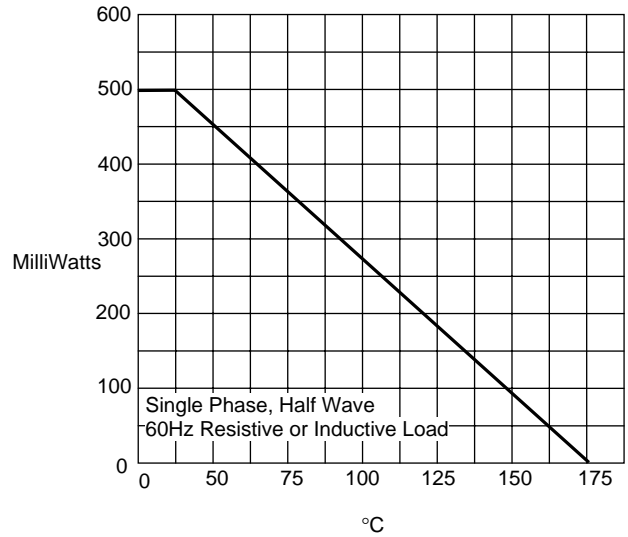
LL4148

Figure 1
Typical Forward Characteristics



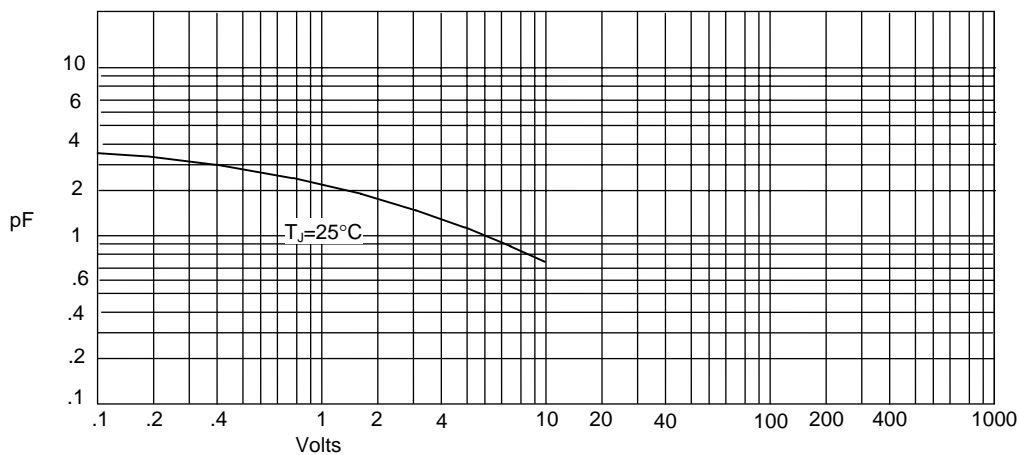
Instantaneous Forward Current - MilliAmperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus
Ambient Temperature - °C

Figure 3
Junction Capacitance

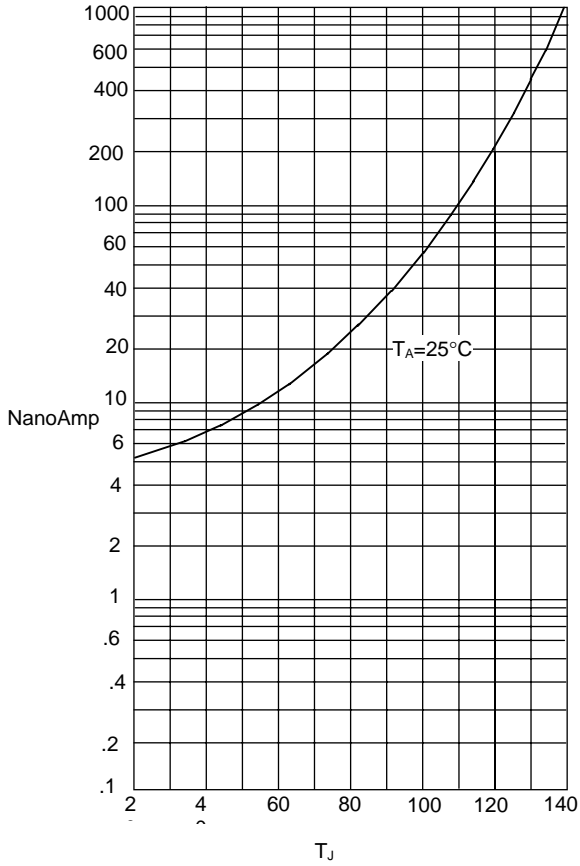


Junction Capacitance - pF versus
Reverse Voltage - Volts

LL4148

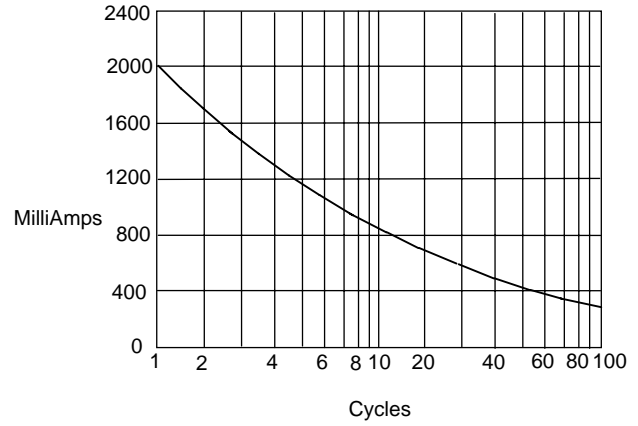


Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus Junction Temperature - °C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles