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# DL4148

## Features

- Low Current Leakage
- Compression Bond Construction
- Low Cost
- Surface Mount Applications

## 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

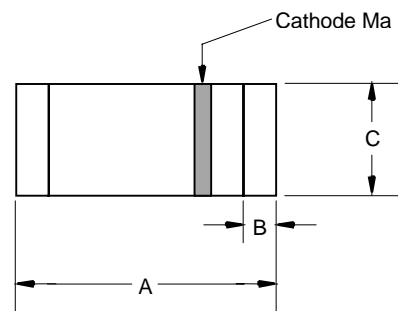
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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 $\mu A$ 50 $\mu A$	$V_R=20V; T_J = 25^\circ C$ $V_R=75V; T_J = 25^\circ C$ $V_R=20V; T_J = 150^\circ C$
Maximum Junction Capacitance	$C_J$	4.0pF	Measured at 1.0MHz, $V_R=0V$
Maximum Reverse Recovery Time	$T_{rr}$	4.0ns	$I_F=10mA; V_R = 6V$ $R_L=100\Omega$

\*Pulse test: Pulse width 300  $\mu sec$ , Duty cycle 2%

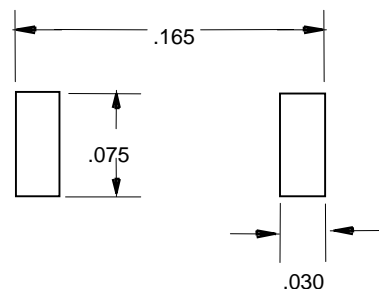
## 500mW High Speed Switching Diode 100 Volt

### MiniMELF



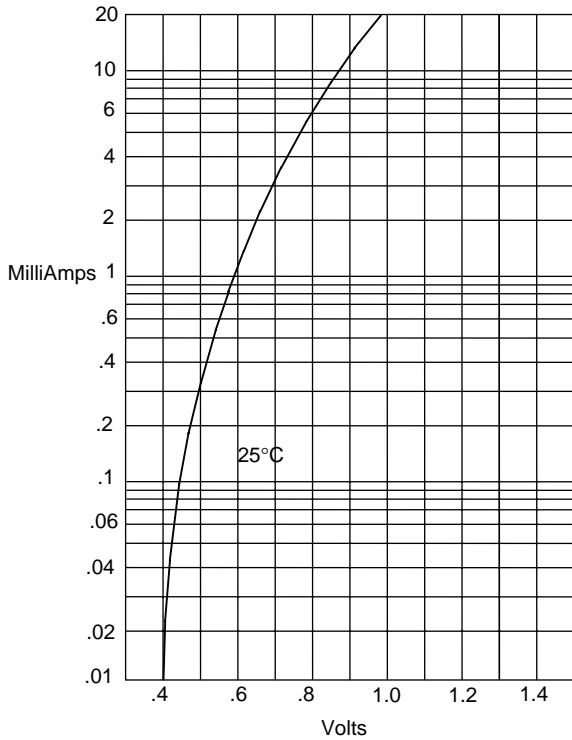
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.134	.142	3.40	3.60	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

### SUGGESTED SOLDER PAD LAYOUT



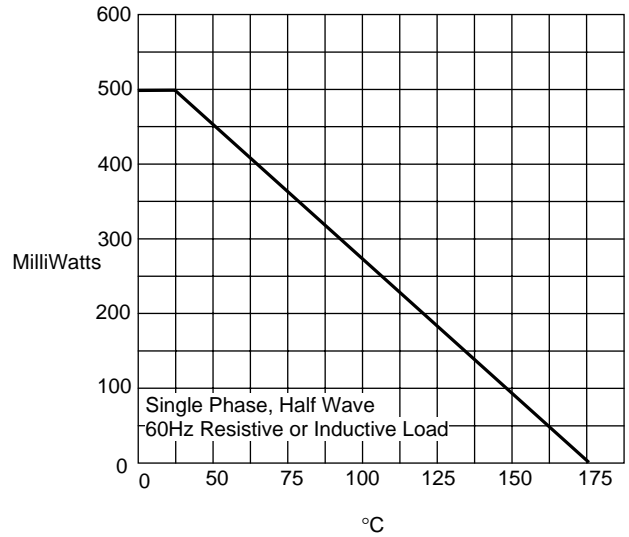
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Figure 1  
Typical Forward Characteristics



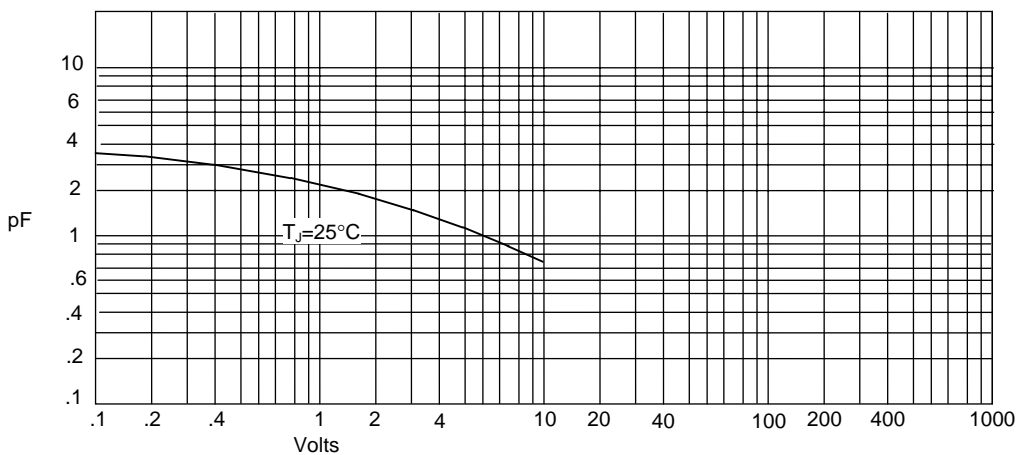
Instantaneous Forward Current - MilliAmperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus  
Ambient Temperature - °C

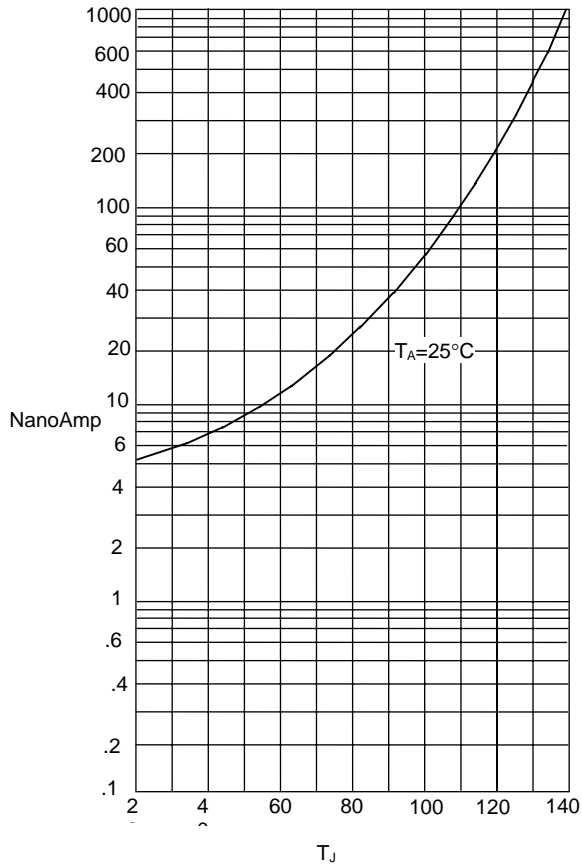
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

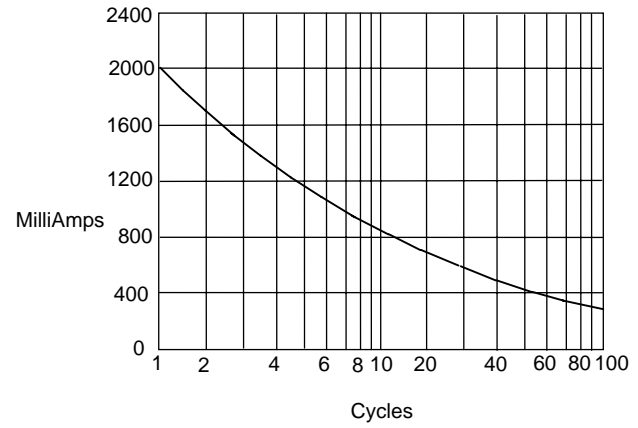
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Figure 4  
Typical Reverse Characteristics



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