



Micro Commercial Components  
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# DL4148

## Features

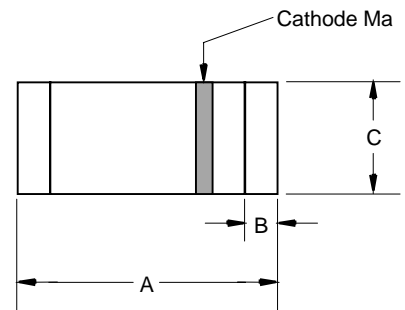
- Low Current Leakage
- Compression Bond Construction
- Low Cost
- Surface Mount Applications

## 500mW 100 Volt Silicon Switching Diode

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 35°C/W Junction To Ambient

## MINIMELF

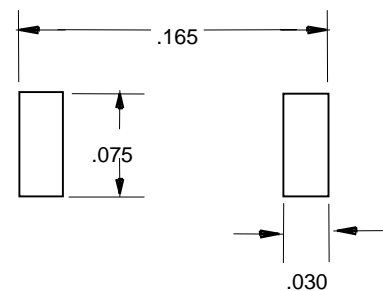


## Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	75V	
Peak Reverse Voltage	$V_{RM}$	100V	
Average Rectified Current	$I_O$	150mA	Resistive Load $f > 50\text{Hz}$
Power Dissipation	$P_{TOT}$	500mW	
Junction Temperature	$T_J$	150°C	
Peak Forward Surge Current	$I_{FSM}$	500mA	$t < 1\text{s}$
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 10\text{mA};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 5.0µA 50µA	$V_R = 20\text{Volts}$ $T_J = 25^\circ\text{C}$ $V_R = 75\text{V}$ $T_J = 150^\circ\text{C}$ $V_R = 20\text{V}$
Typical Junction Capacitance	$C_J$	4pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Reverse Recovery Time	$T_{rr}$	4nS	$I_F = 10\text{mA}$ $V_R = 6\text{V}$ $R_L = 100\Omega$

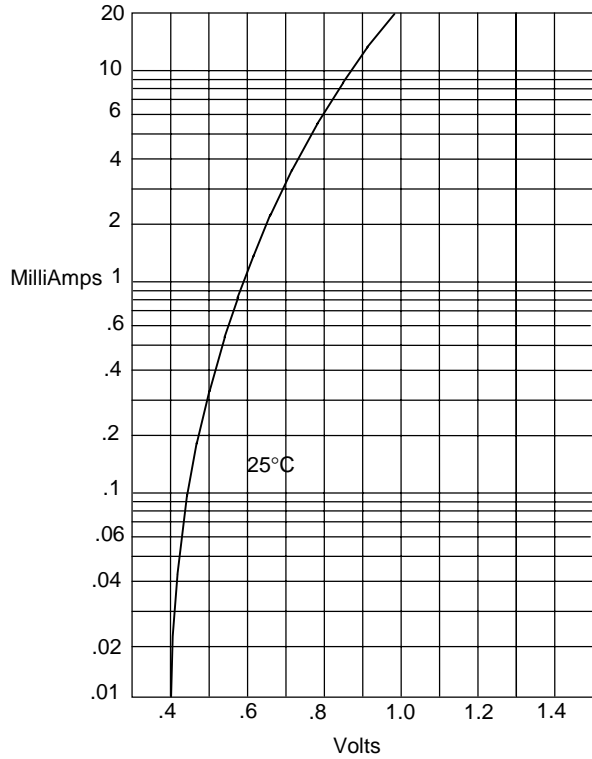
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

## SUGGESTED SOLDER PAD LAYOUT



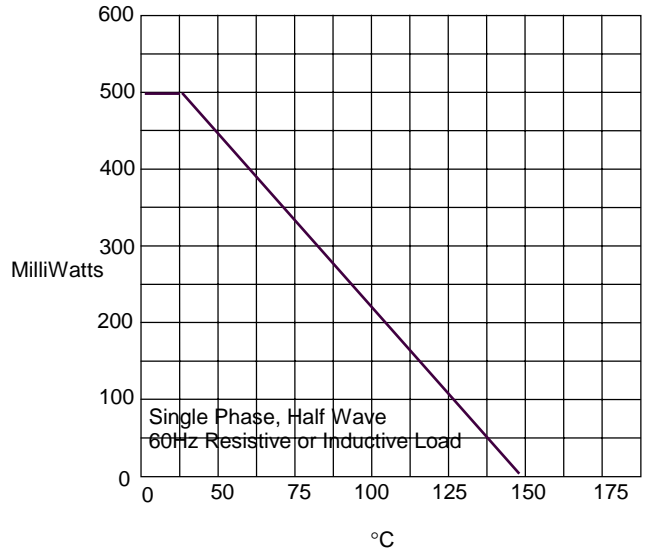
\*Pulse test: Pulse width 300 µsec, Duty cycle 2%

Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

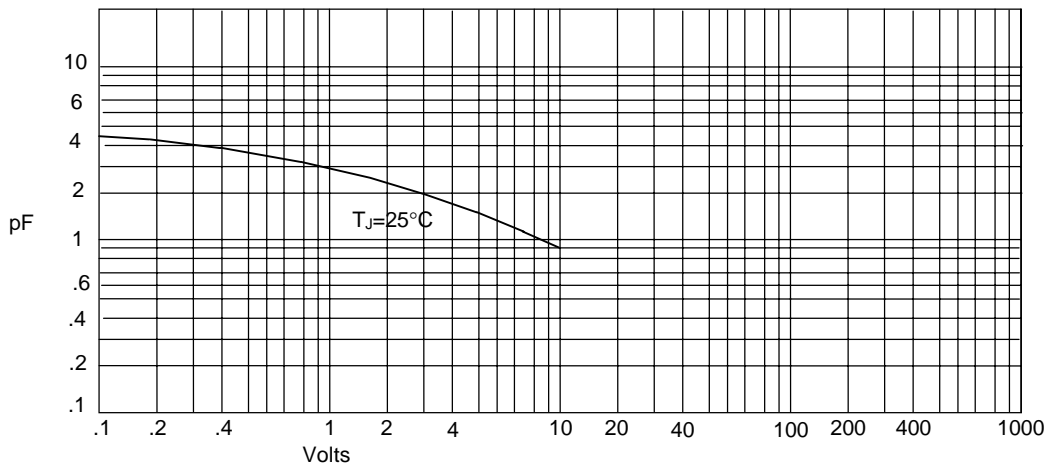
Figure 2  
Forward Derating Curve



Single Phase, Half Wave  
60Hz Resistive or Inductive Load

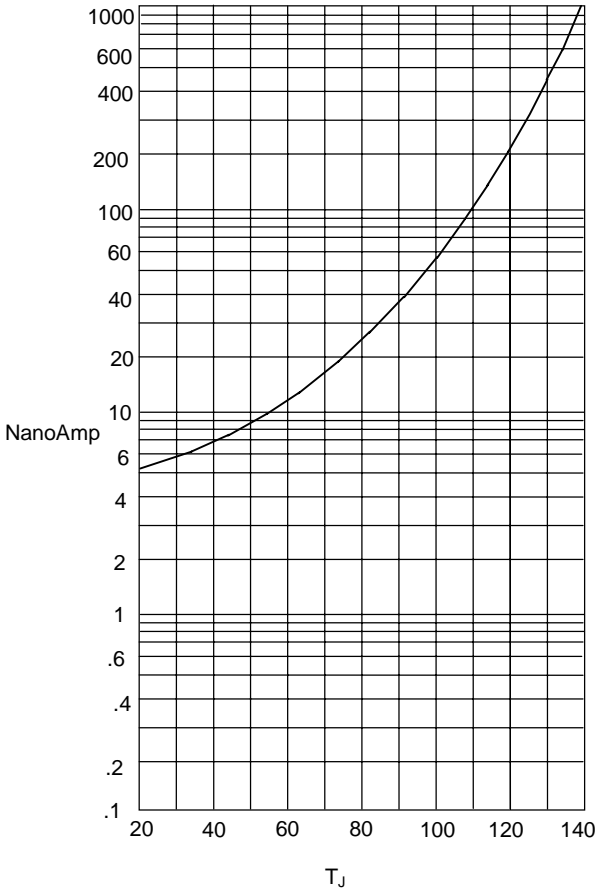
Admissible Power Dissipation - MilliWatts versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

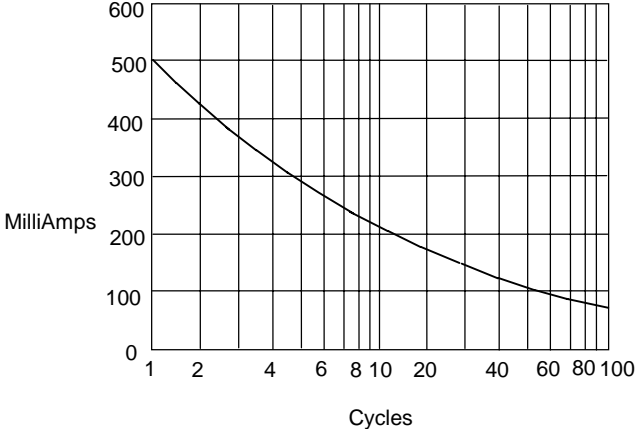
Figure 4  
Typical Reverse Characteristics



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

T<sub>A</sub>=25°C  
T<sub>A</sub>=100°C

Figure 5  
Peak Forward Surge Current



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