



Micro Commercial Components  
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# DL4448

## Features

- Low Current Leakage
- Metallurgically Bonded Construction
- Low Cost

## 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

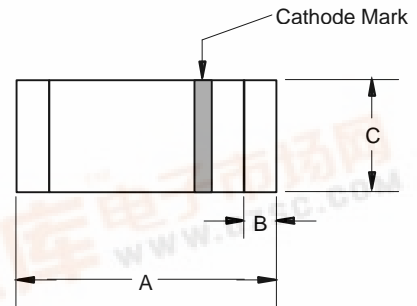
## 500mW 100Volt Switching Diode

### 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	$t < 1\text{s}$
Instantaneous Forward Voltage	$V_F$	1.0V(MAX) 0.62-0.72V	$I_{FM} = 100\text{mA};$ $I_{FM} = 5.0\text{mA}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 5.0uA 50uA	$V_R=20\text{Volts}$ $T_J=25^\circ\text{C } V_R=75\text{V}$ $T_J=150^\circ\text{C } V_R=20\text{V}$
Typical Junction Capacitance	$C_J$	4pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Reverse Recovery Time	$T_{rr}$	4nS	$I_F=10\text{mA}$ $V_R = 6\text{V}$ $R_L=100\Omega$

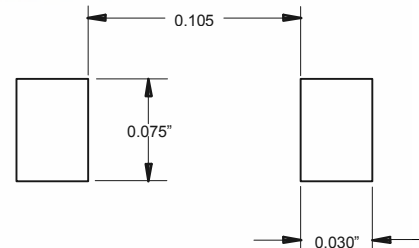
\*Pulse test: Pulse width 300 μsec, Duty cycle 2%

## MINIMELF



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	∅

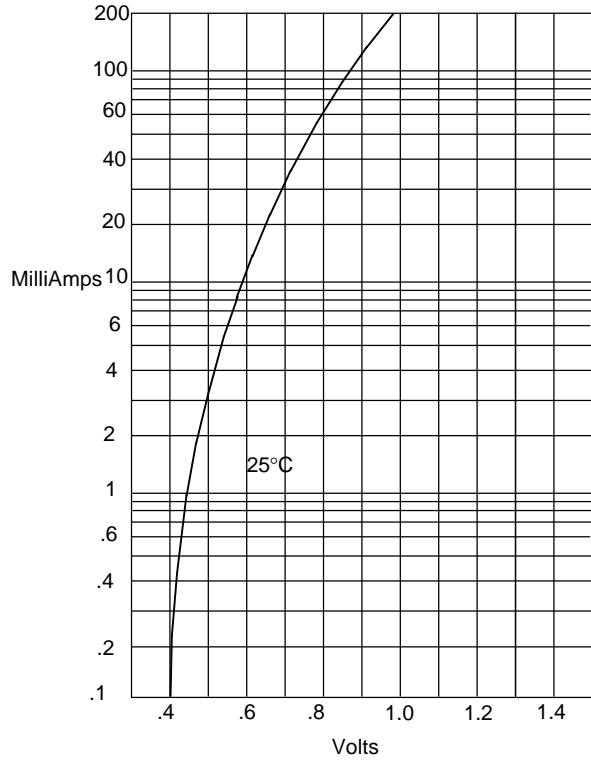
### SUGGESTED SOLDER PAD LAYOUT



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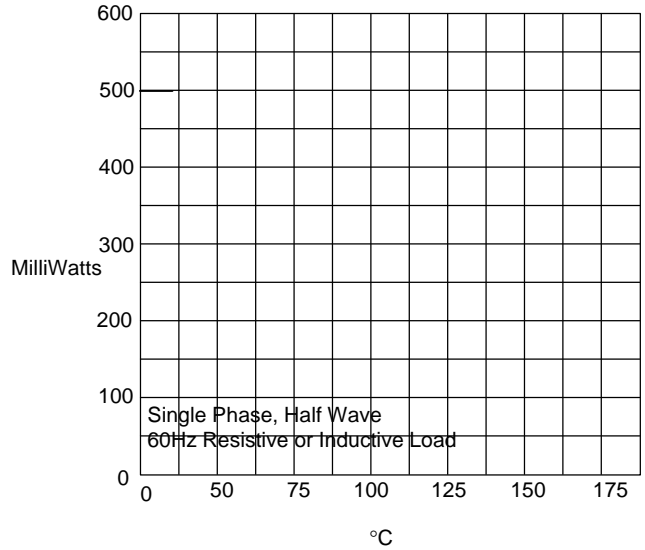


Figure 1  
Typical Forward Characteristics



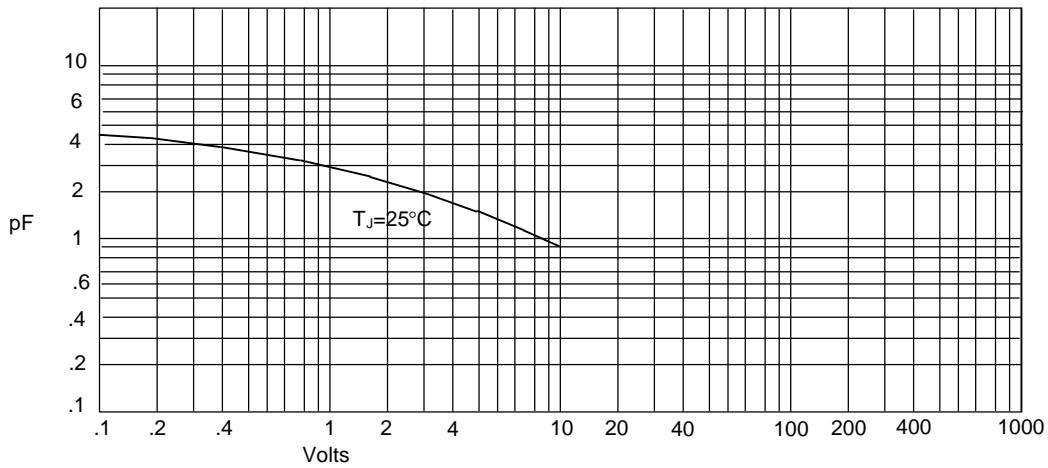
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes/ersus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance

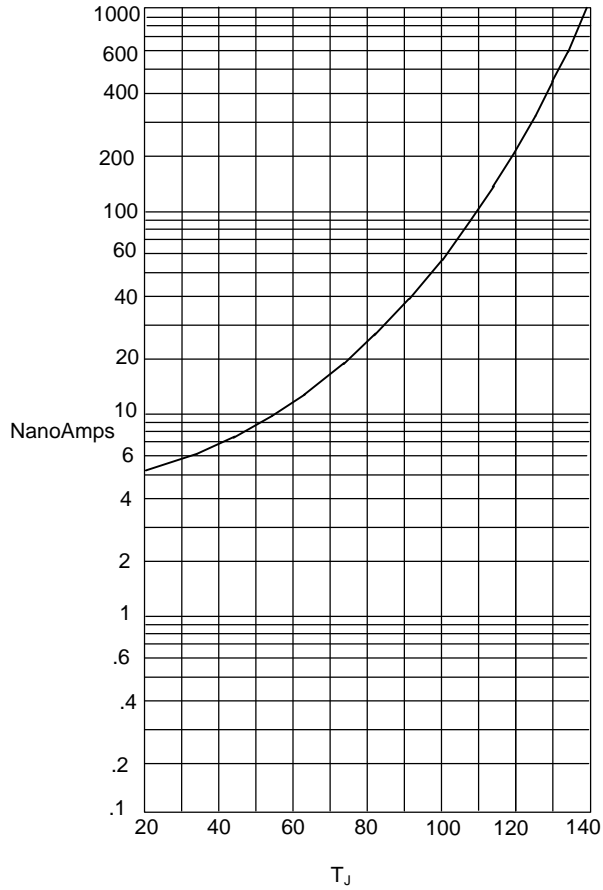


Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

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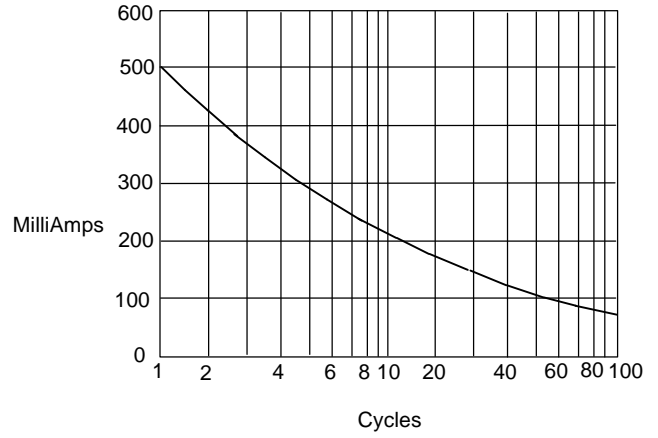
Figure 4  
Typical Reverse Characteristics



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

$T_A=25^\circ\text{C}$   
 $T_A=100^\circ\text{C}$

Figure 5  
Peak Forward Surge Current



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