



Micro Commercial Components



Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

# DL4148

## 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. See ordering information)

### Maximum Ratings

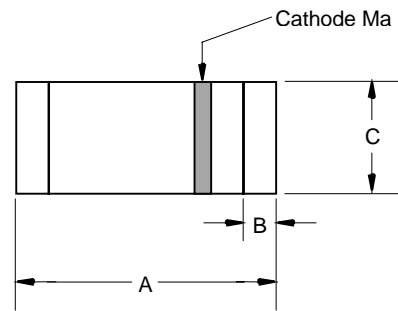
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 500K/W Junction To Ambient  
Tested on PC Board 50mm x 50mm x 1.6mm

### 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	$I_F = 10mA; V_R = 6V$ $R_L = 100\Omega$

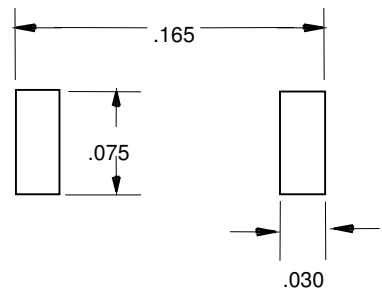
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(c)-1.

### MiniMELF



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.130	.146	3.30	3.70	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	Ø

### SUGGESTED SOLDER PAD LAYOUT

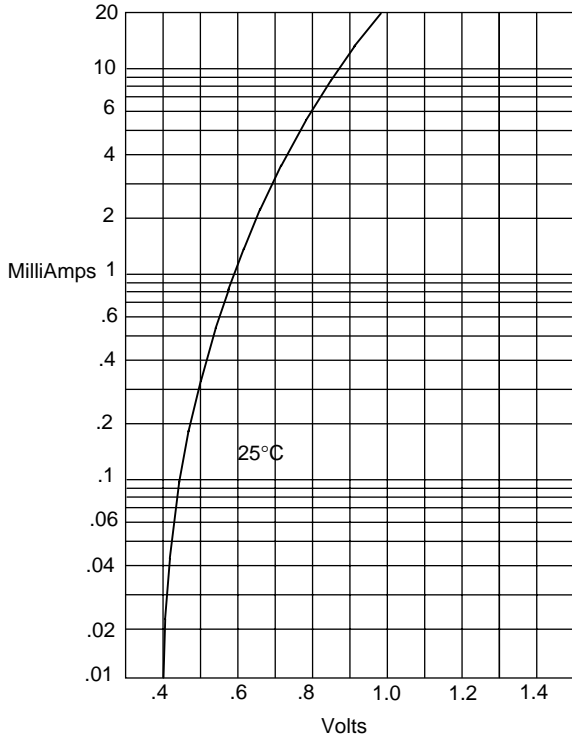


# DL4148



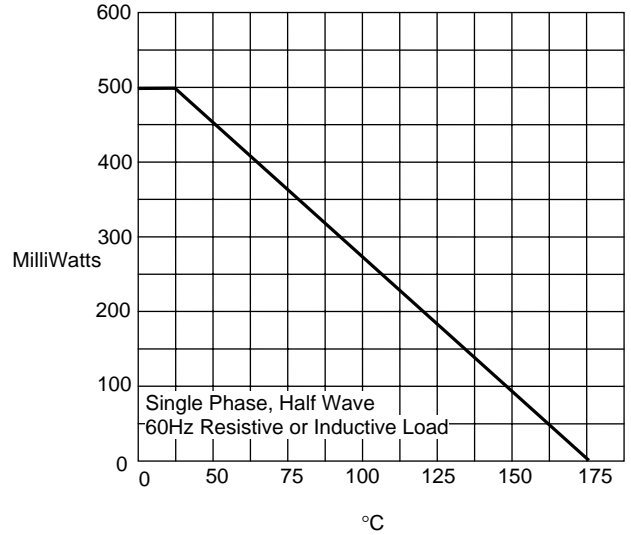
Micro Commercial Components

Figure 1  
Typical Forward Characteristics



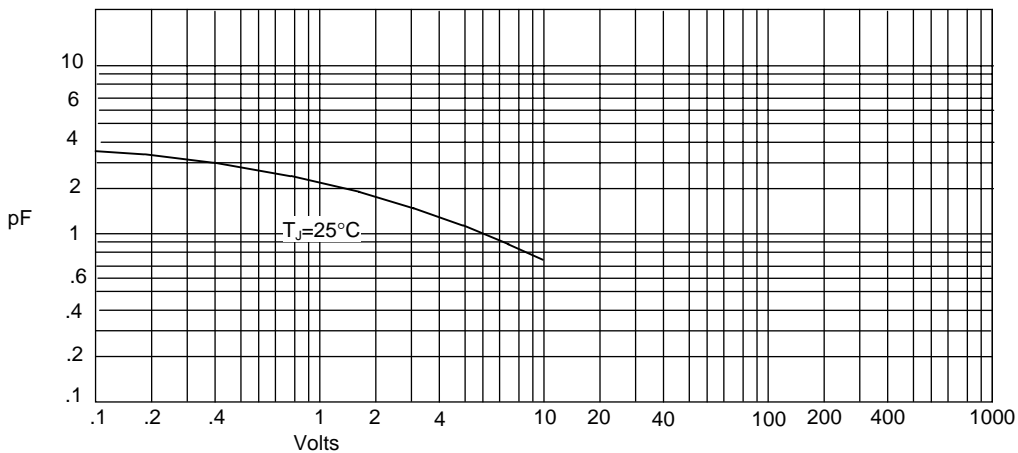
Instantaneous Forward Current - MilliAmperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



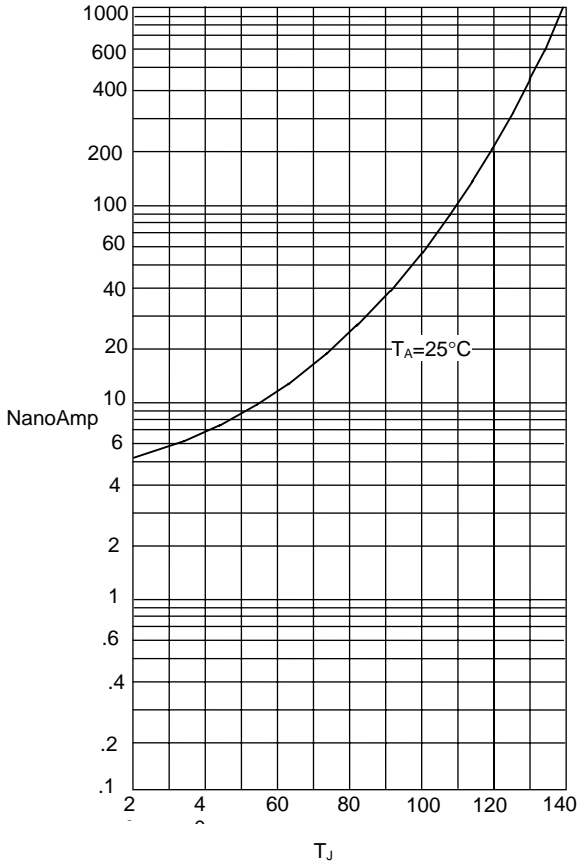
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# DL4148



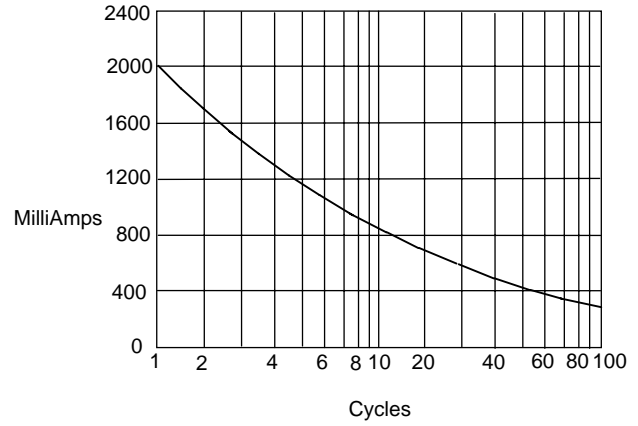
Micro Commercial Components

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



TM

Micro Commercial Components

### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

#### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

#### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

#### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

[www.mccsemi.com](http://www.mccsemi.com)