



Micro Commercial Components



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

MCL4448

500mW 100 Volt Silicon Epitaxial Diode

Features

- Silicon epitaxial planar diode
Fast Switching diodes
500mW power dissipation
This diode is also available in the DO-35 case with the type designation 1N4448, in the Minimelf case with the type designation DL4448
Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Maximum Ratings

- Operating Temperature: -55°C to +150°C
Storage Temperature: -55°C to +150°C
Maximum Thermal Resistance; 350K/W Junction To Ambient
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Electrical Characteristics @25°C Unless Otherwise Specified

Table with 4 columns: Parameter, Symbol, Value, and Conditions. Rows include Reverse Voltage (VR=75V), Peak Reverse Voltage (VRM=100V), Average Rectified Current (IAV=150mA), Power Dissipation (PTOT=500mW), Junction Temperature (TJ=150°C), Surge Forward Current (IFSM=500mA), Instantaneous Forward Voltage (VF=1.0V MAX), Maximum DC Reverse Current (IR=50uA), Minimum Reverse Breakdown Voltage (VBR=100V), Typical Junction Capacitance (CJ=4.0pF), and Reverse Recovery Time (Trr=4.0nS).

1) Valid provided that leads at a distance of 8mm from case are kept at ambient temperature(DO-35)

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

MICROMELF

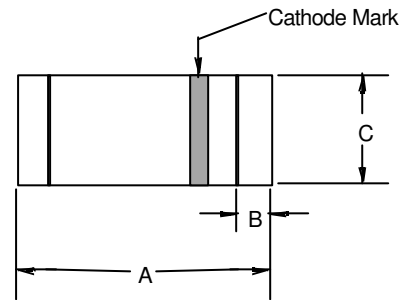


Table titled 'DIMENSIONS' with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A, B, and C provide specific dimension values.

SUGGESTED SOLDER PAD LAYOUT

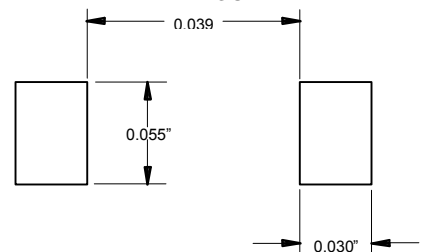
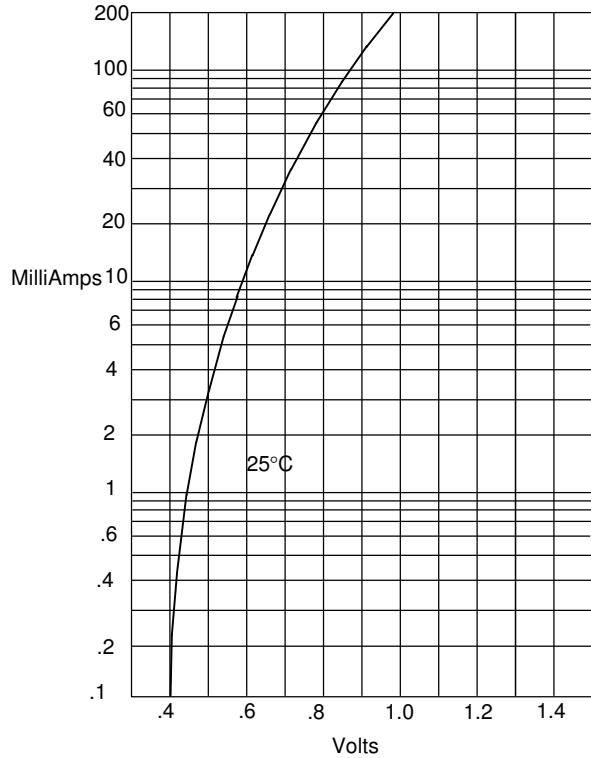
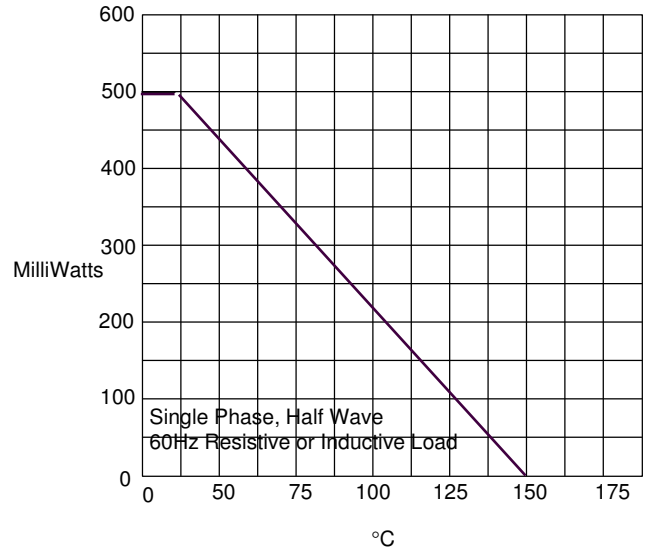


Figure 1  
Typical Forward Characteristics



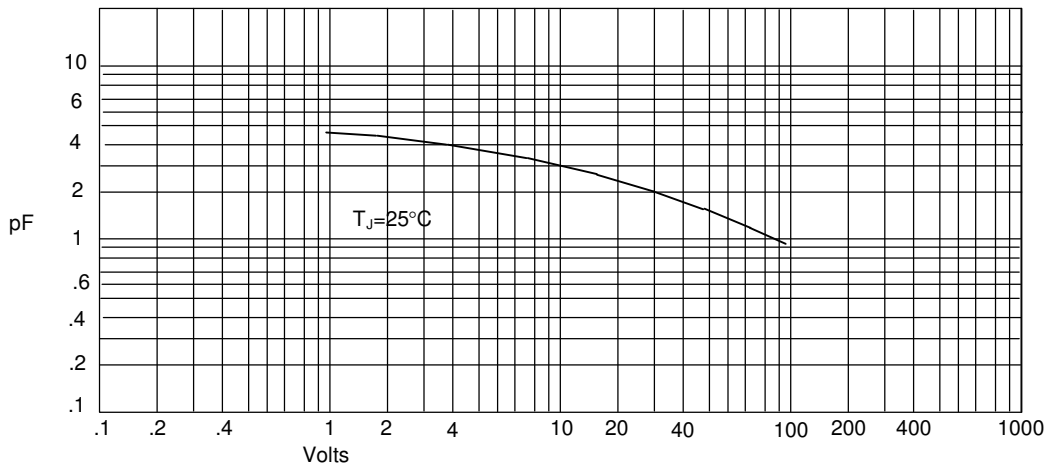
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Admissible Power Dissipation - MilliWatts *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

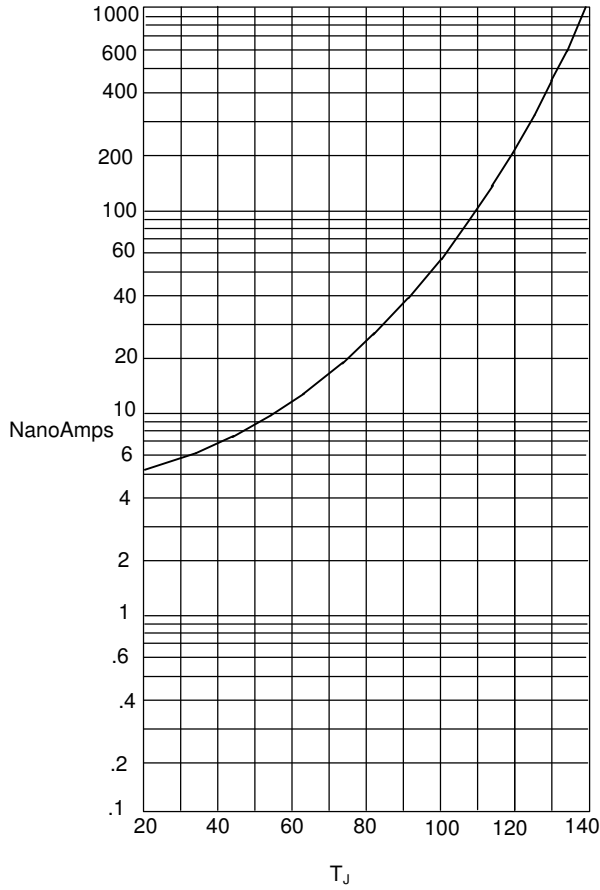
# MCL4448



TM

Micro Commercial Components

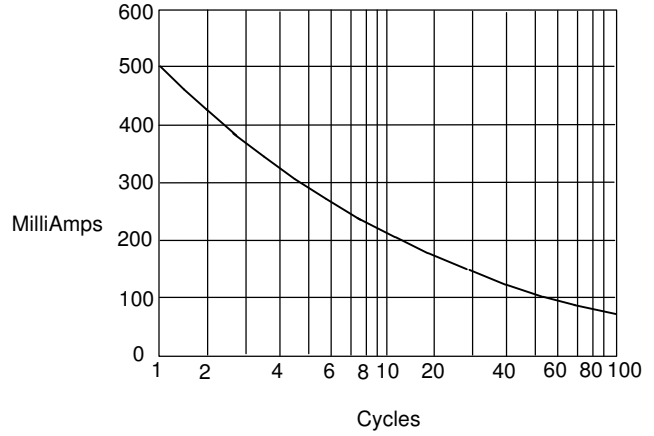
Figure 4  
Typical Reverse Characteristics



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

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.