

Obsolete

M.C.C.

Micro Commercial Components



Micro Commercial Components
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MCL4448

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 $+150^{\circ}\text{C}$
- Storage Temperature: -55°C to $+150^{\circ}\text{C}$
- 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

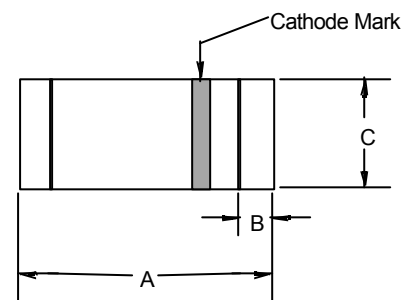
Reverse Voltage	V_R	75V	
Peak Reverse Voltage	V_{RM}	100V	
Average Rectified Current	I_{AV}	150mA	Resistive Load $f > 50\text{Hz}$
Power Dissipation	P_{TOT}	500mW ¹⁾	$T_A = 25^{\circ}\text{C}$
Junction Temperature	T_J	150 $^{\circ}\text{C}$	
Surge Forward Current	I_{FSM}	500mA	$t < 1\text{S}$, $T_J = 25^{\circ}\text{C}$
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	$T_J = 25^{\circ}\text{C}$, $V_R = 20\text{V}$ $V_R = 75\text{V}$, $V_R = 20\text{V}$ $T_J = 150^{\circ}\text{C}$
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	100V	Tested with 100uA puse
Typical Junction Capacitance	C_J	4.0pF	Measured at $V_R = V_F = 0\text{V}$
Reverse Recovery Time	T_{rr}	4.0nS	$I_F = 10\text{mA}$, $V_R = 6.0\text{V}$ $R_L = 100\text{OHMS}$

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.

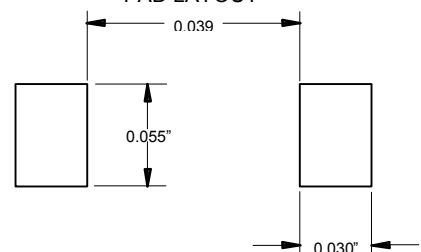
500mW 100 Volt Silicon Epitaxial Diode

MICROMELF



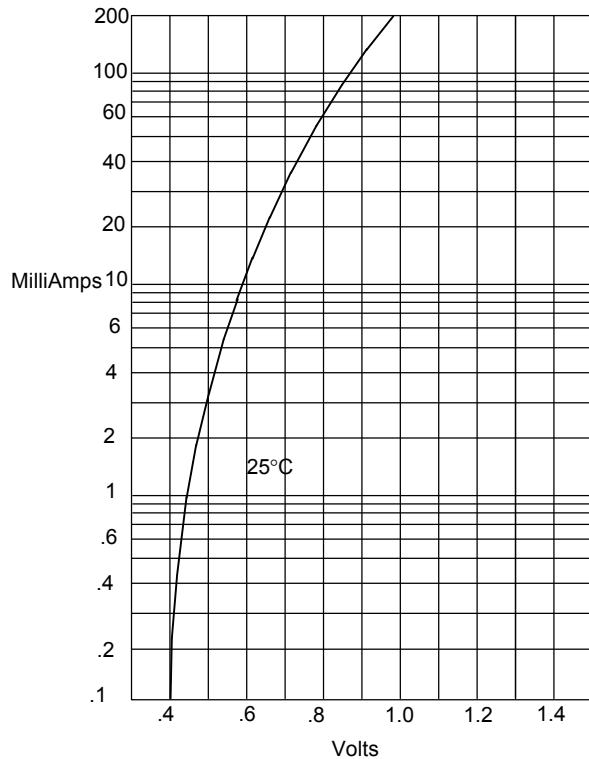
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.079	1.8	2.0	
B	.004	.008	.10	.20	
C	.047	.051	1.20	1.30	Ø

SUGGESTED SOLDER PAD LAYOUT



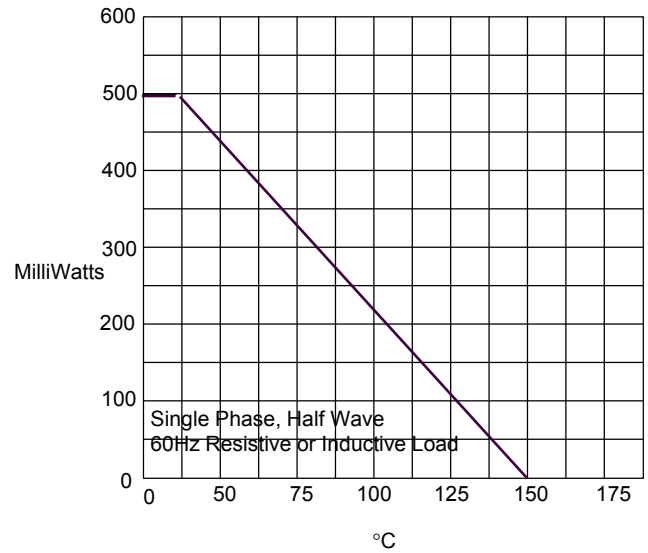
MCL4448

Figure 1
Typical Forward Characteristics



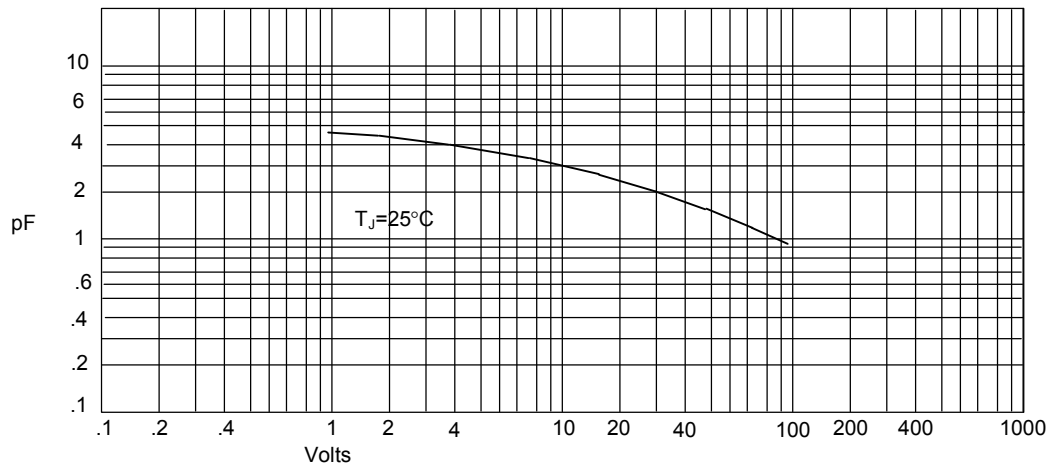
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



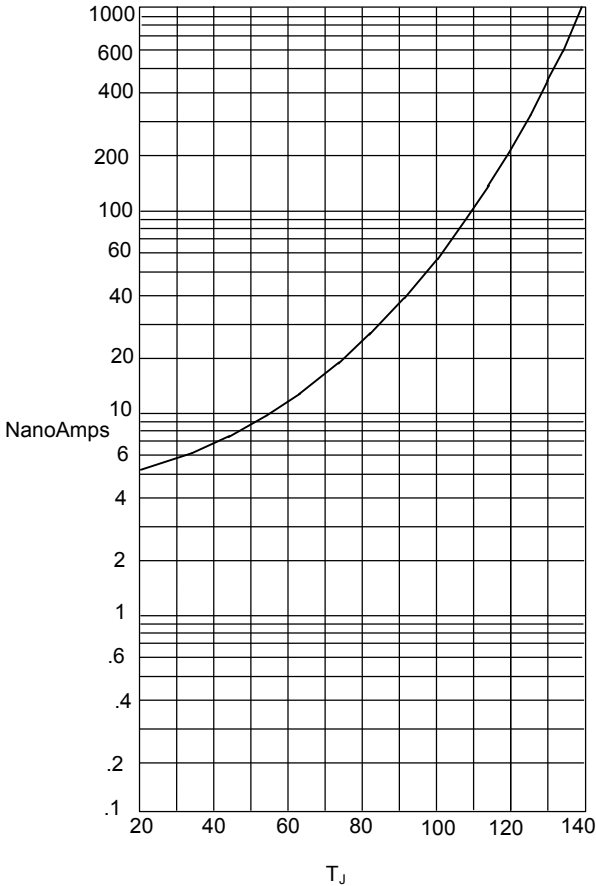
Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

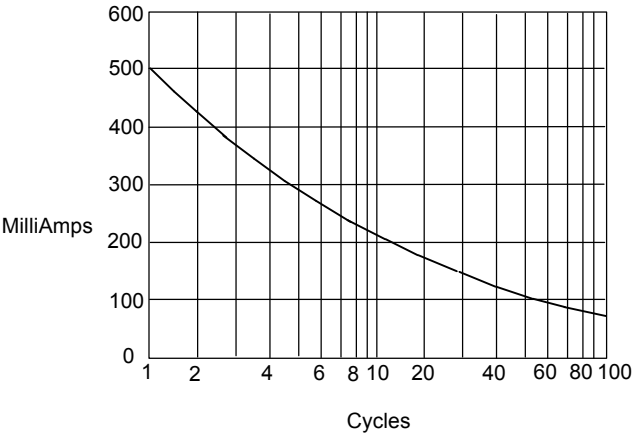
Figure 4
Typical Reverse Characteristics



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

T_A=25°C
T_A=100°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

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