



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 1N4448W

## 500mW 100 Volts Switching Diode

### Features

- Halogen free available upon request by adding suffix "-HF"
- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

### Mechanical Data

- Marking Code: T5
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

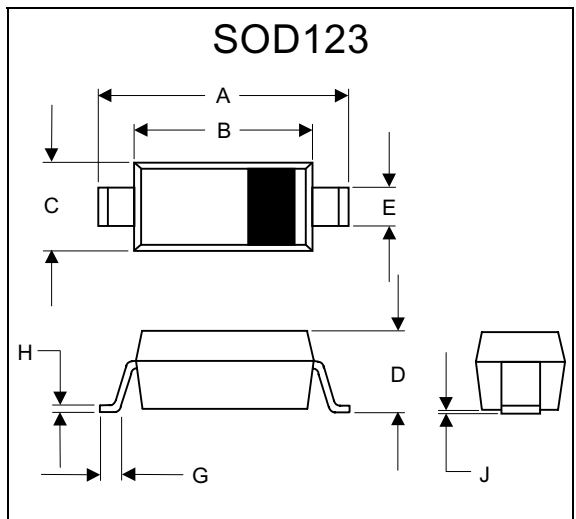
#### Maximum Ratings @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Average Rectified Current	$I_b$	250	mA
Peak Forward Surge Current	$I_{FSM}$	2	A
Power Dissipation	$P_D$	500	mW
Thermal Resistance*	$R_{thja}$	250	°C/W
Operation/Storage Temp. Range	$T_j, T_{STG}$	-55 to +150	°C

#### Electrical Characteristics @ 25°C Unless Otherwise Specified

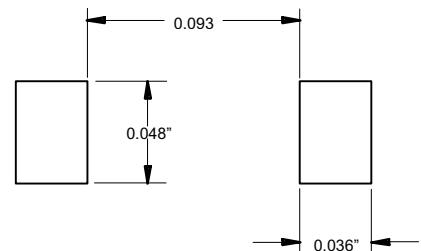
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 100mA;$ $T_J = 25^\circ C$ (Note 1)
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 50µA 2.5uA	$V_R=20Volts$ $T_J = 25^\circ C$ $T_J = 150^\circ C$ $V_R=75Volts$
Typical Junction Capacitance	$C_J$	4pF	Measured at 1.0MHz, $V_R=4.0V$
Reverse Recovery Time	$T_{rr}$	4nS	$I_F=10mA$ $V_R = 6V$ $R_L=100\Omega$

Note: 1. Valid provided that terminals are kept at ambient temperature



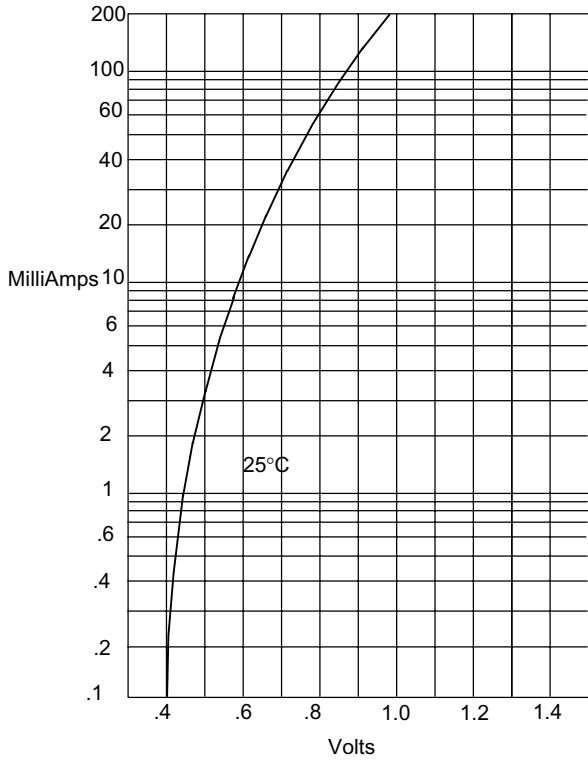
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

#### SUGGESTED SOLDER PAD LAYOUT



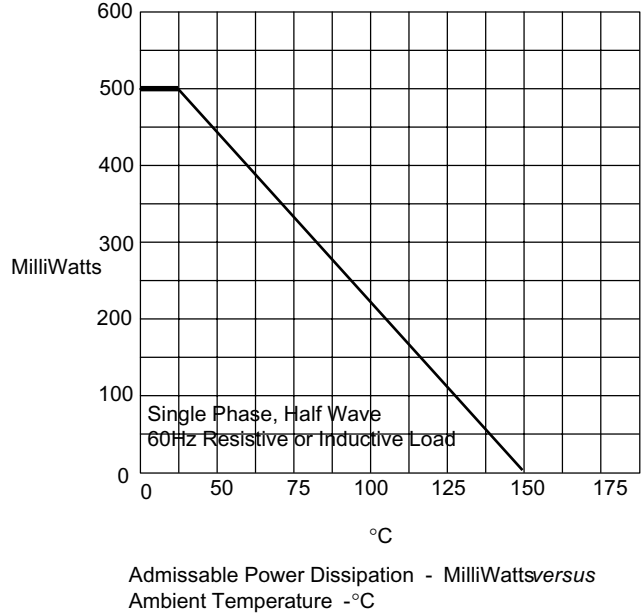
# 1N4448W

Figure 1  
 Typical Forward Characteristics



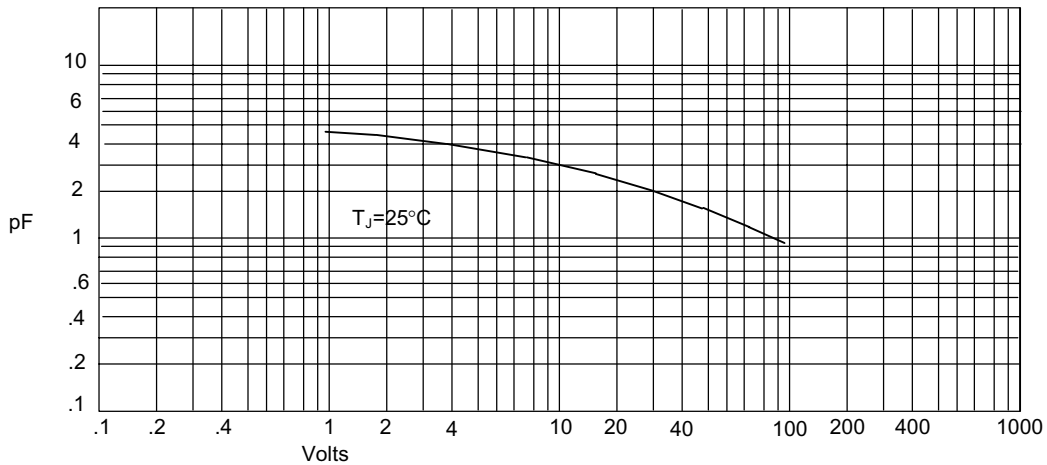
Instantaneous Forward Current - Amperes *versus*  
 Instantaneous Forward Voltage - Volts

Figure 2  
 Forward Derating Curve



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

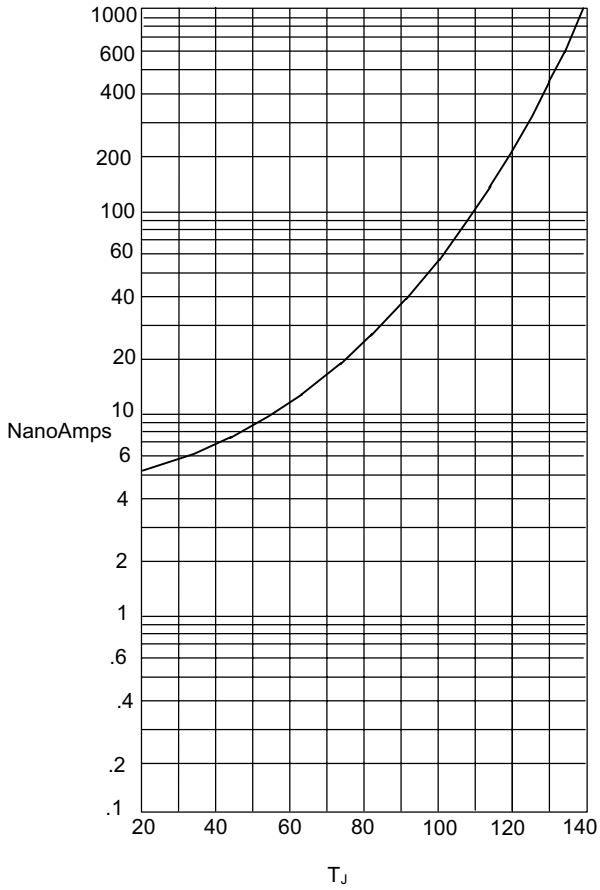
Figure 3  
 Junction Capacitance



Junction Capacitance - pF *versus*  
 Reverse Voltage - Volts

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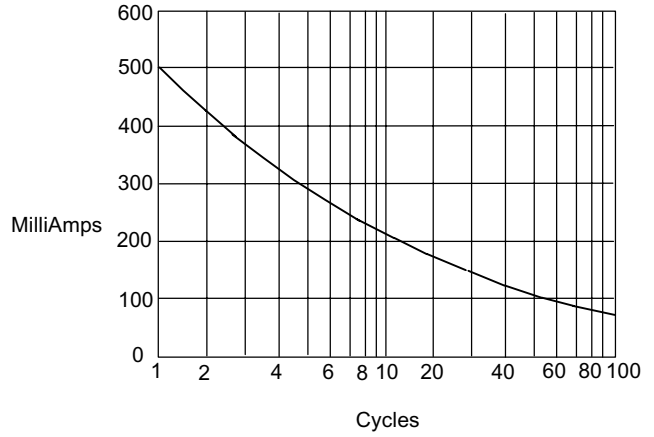
Figure 4  
Typical Reverse Characteristics



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





Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel:3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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