



Micro Commercial Components



Micro Commercial Components  
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# 1N4448W

## 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	$I_o$	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

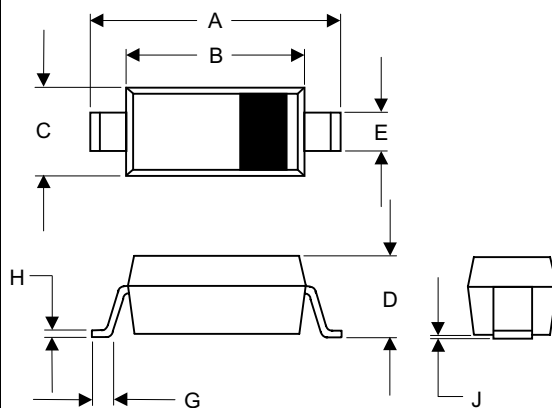
### Electrical Characteristics @ 25°C Unless Otherwise Specified

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	$V_R = 20V$ ; $T_J = 25^\circ C$ $T_J = 150^\circ C$ $V_R = 75V$
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

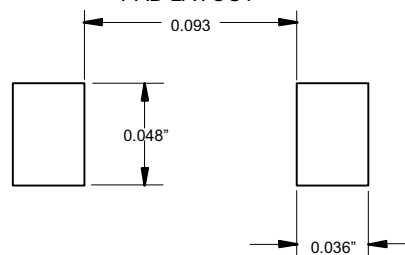
## 500mW 100 Volts Switching Diode

SOD123



DIM	INCHES		MM		NOTE
	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

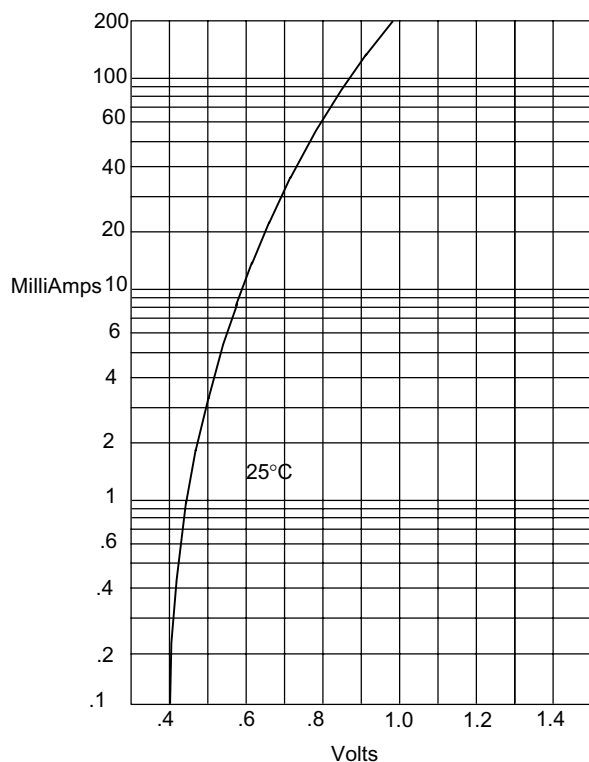


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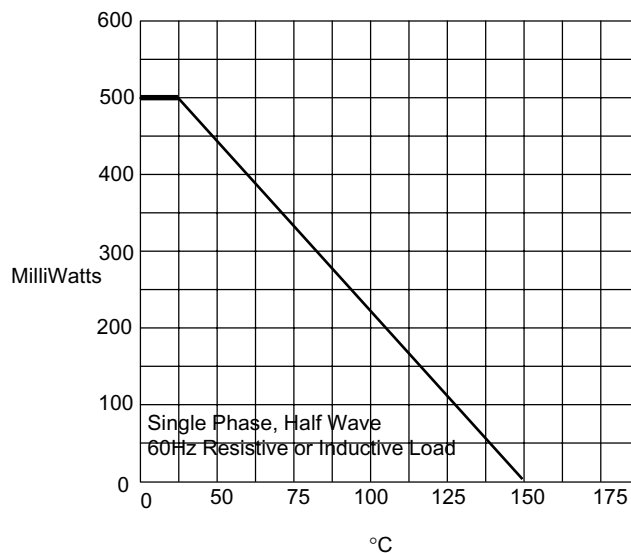
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Figure 1  
Typical Forward Characteristics



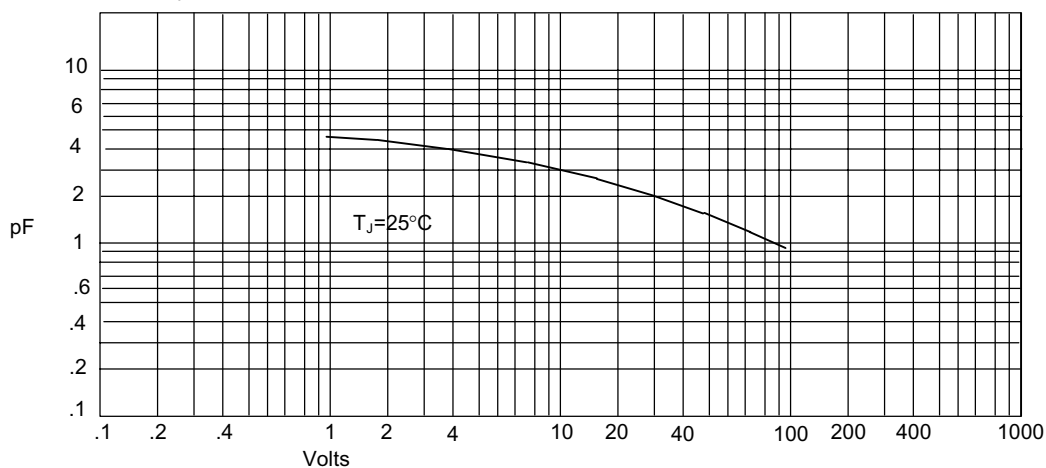
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

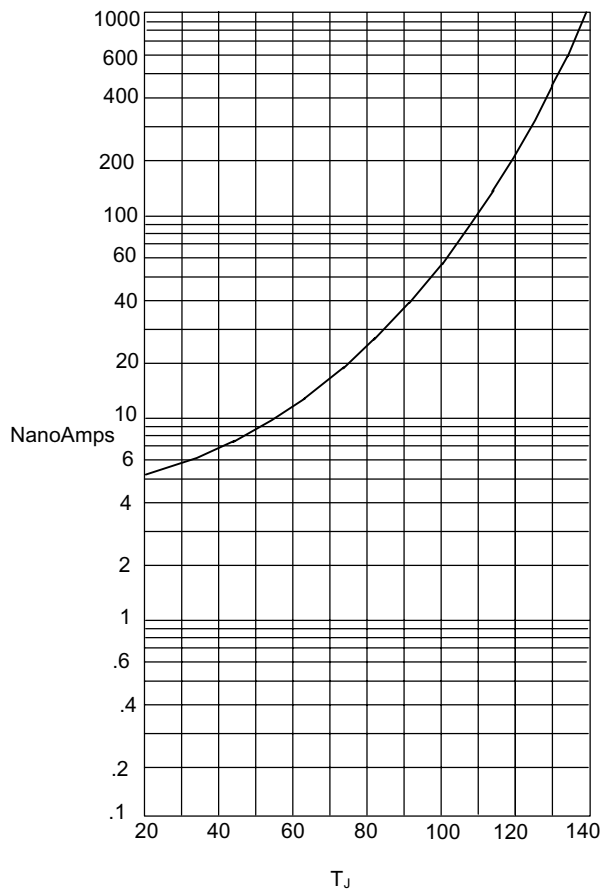
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

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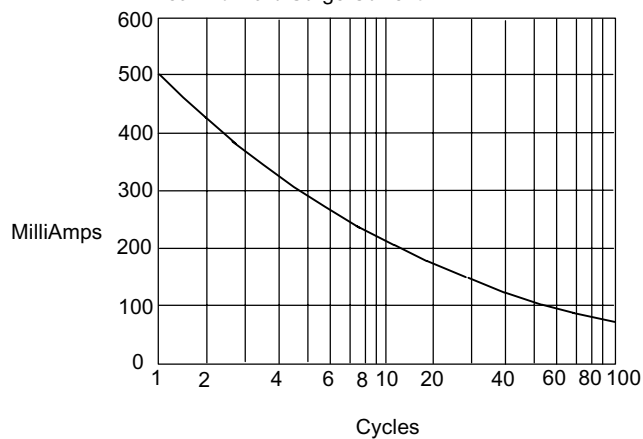
Figure 4  
Typical Reverse Characteristics



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

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

Figure 5  
Peak Forward Surge Current



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

## 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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