

## Features

- Fast Switching Speed
- High Conductance
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## **Maximum Ratings**

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

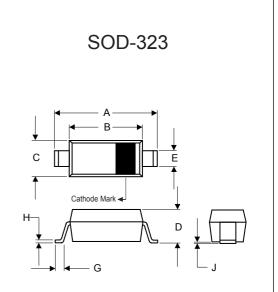
MCC Part Number	Device Marking		
1N4448WX	Т5		

Parameter	Symbol	Value	
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100V	
DC Reverse Voltage	V <sub>R</sub>	100V	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100V	
Working Inverse Voltage	V <sub>RWM</sub>	100V	
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71V	
Forward Continuous Current (Note 2)	I <sub>FM</sub>	500mA	
Average Forward Current	I <sub>F(AV)</sub>	250mA	
Peak Forward Surge Current (t=1s)		2A	
(t=1µs)	I <sub>FSM</sub>	4A	
Power Dissipation	P <sub>D</sub>	200mW	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

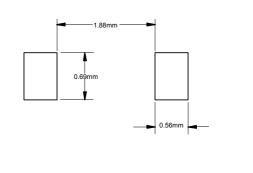
Note: 2. Valid Provided that Terminals are Kept at Ambient Temperature

# 200mW High Speed Switching Diode



	DIMENSIONS				
DIM	INC	INCHES		М	NOTE
	MIN	MAX	MIN	MAX	NOTE
А	0.090	0.107	2.30	2.70	
В	0.063	0.071	1.60	1.80	
С	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
Е	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
Н	0.004	0.010	0.10	0.25	
J		0.006		0.15	

#### Suggested Solder Pad Layout





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

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units															
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =5mA			0.72	V															
		I <sub>F</sub> =10mA			0.855	V															
		I <sub>F</sub> =100mA			1	V															
		I <sub>F</sub> =150mA			1.25	V															
		V <sub>R</sub> =20V			25	nA															
	I <sub>R</sub>	V <sub>R</sub> =75V			1	μA															
Reverse Current		I'R	I'R	'R	'R	R	'R	'R	'R	'R	'R	'R	١ĸ	'R	'R	'R	V <sub>R</sub> =25V, T <sub>J</sub> =150°C			30	μA
		V <sub>R</sub> =75V, T <sub>J</sub> =150°C			50	μA															
Junction Capacitance	CJ	$V_R = 0V, f = 1MHz$			4	pF															
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1×I <sub>R</sub> ,R <sub>L</sub> =100Ω			4	ns															

\* Pulse Test: Pulse Width 300  $\mu sec,$  Duty Cycle 2%



# **Curve Characteristics**

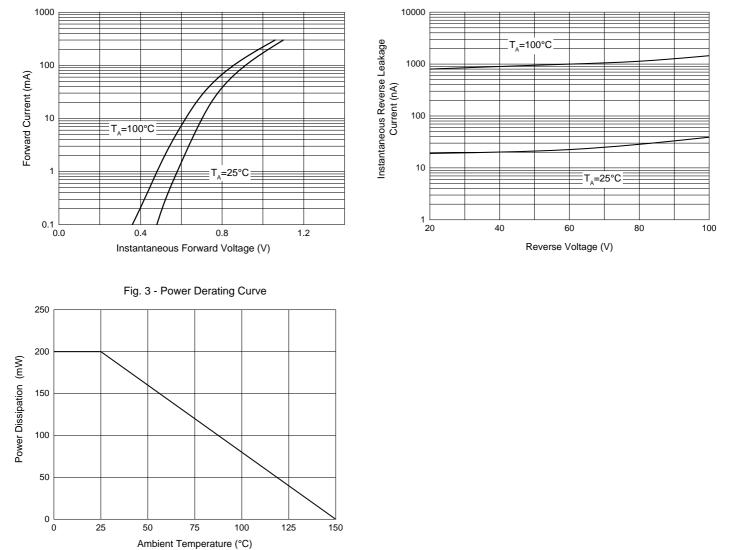


Fig. 1 - Typical Instantaneous Forward Characteristics

Fig. 2 - Typical Reverse Leakage Characteristics



## **Ordering Information**

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

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