

**Micro Commercial Components** 

Micro Commercial Components 20736 Marilla Chatsworth

CA 91311

Phone: (818) 701-4933 (818) 701-4939 Fax:

- Features
   Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
  Low Current Leakage
- Metalurgically Bonded Construction
- Low Cost
- Marking: Cathode band and type number
- Moisture Sensitivity: Level 1 per J-STD-020C

# Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 35 °C/W Junction To Ambient

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

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Reverse Voltage	$V_R$	75V	
Peak Reverse	$V_{RM}$	100V	
Voltage			
Average Rectified	Ιo	150mA	Resistive Load
Current			f >= 50Hz
Power Dissipation	P <sub>TOT</sub>	500mW	
Junction	$T_J$	150°C	
Temperature			
Peak Forward Surge	I <sub>FSM</sub>	500mA	t<1s
Current			
Instantaneous	$V_{F}$	1.0V(MAX)	I <sub>FM</sub> = 100mA;
	VF	, ,	
Forward Voltage		0.62-0.72V	$I_{FM} = 5.0 \text{mA}$
Maximum DC			V <sub>R</sub> =20Volts
Reverse Current At	$I_R$	25nA	T <sub>J</sub> = 25°C
Rated DC Blocking		50μΑ	T <sub>J</sub> = 150°C
Voltage		5uA	V <sub>R</sub> =75Volts
Typical Junction	CJ	4pF	Measured at
Capacitance	- 0		1.0MHz, V <sub>R</sub> =4.0V
Reverse Recovery	T <sub>rr</sub>	4nS	I <sub>F</sub> =10mA
Time	"		$V_R = 6V$
			$R_L=100\Omega$

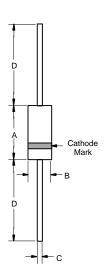
<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

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

## 1N4448

# 500mW 100Volt **Switching Diode**

# **DO-35**



DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α		.166		4.2		
В		.079		2.00		
C		.020		.52		
D	1.000		25.40			

## 1N4448

Figure 1
Typical Forward Characteristics



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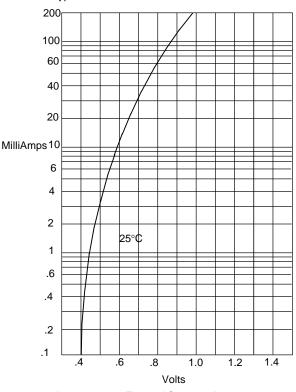


Figure 2
Forward Derating Curve

600

400

MilliWatts

200

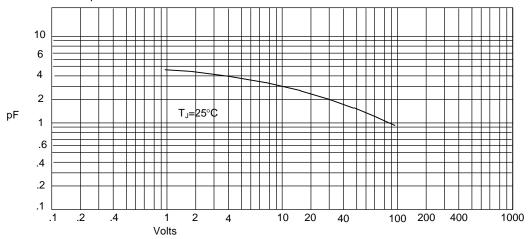
Single Phase, Half Wave
60Hz Resistive or Inductive Load
0 50 75 100 125 150 175

Admissable Power Dissipation - MilliWattsversus Ambient Temperature -°C

 $^{\circ}\text{C}$ 

Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 3
Junction Capacitance

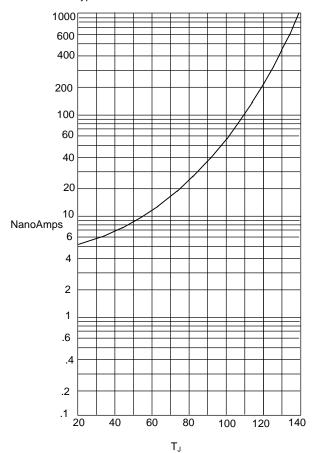


Junction Capacitance - pF*versus* Reverse Voltage - Volts

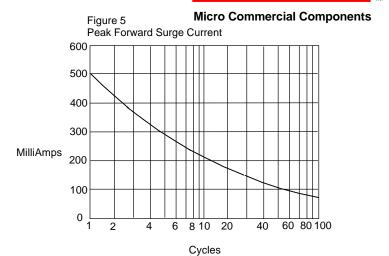
# 1N4448

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Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperesersus Junction Temperature -°C



Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



## **Ordering Information**

Device	Packing	
(Part Number)-TP	Tape&Reel 10Kpcs/Reel	
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox	
(Part Number)-BP	Bulk;500pcs/Bag	

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