



Micro Commercial Components

Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

## Features

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

## Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 300K/W Junction To Ambient

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	75V	
Breakdown Voltage	$V_{BR}$	100V	$I_R=100 \mu A$
Average Forward Current	$I_O$	150mA	
Power Dissipation	$P_{TOT}$	500mW	
Junction Temperature	$T_J$	175°C	
Peak Forward Surge Current	$I_{FSM}$	2.0A	$t_p = 1.0 \mu s$
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 10mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 5.0 $\mu A$ 50 $\mu A$	$V_R=20V; T_J = 25^\circ C$ $V_R=75V; T_J = 25^\circ C$ $V_R=20V; T_J = 150^\circ C$
Maximum Junction Capacitance	$C_J$	4.0pF	Measured at 1.0MHz, $V_R=0V$
Maximum Reverse Recovery Time	$T_{rr}$	4.0ns	$I_F=10mA; V_R = 6V$ $R_L=100\Omega$

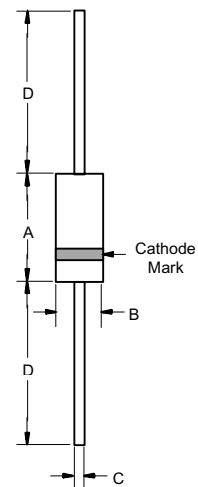
\*Pulse test: Pulse width 300  $\mu sec$ , Duty cycle 2%

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

# 1N4148

## 500mW High Speed Switching Diode 100 Volt

### DO-35



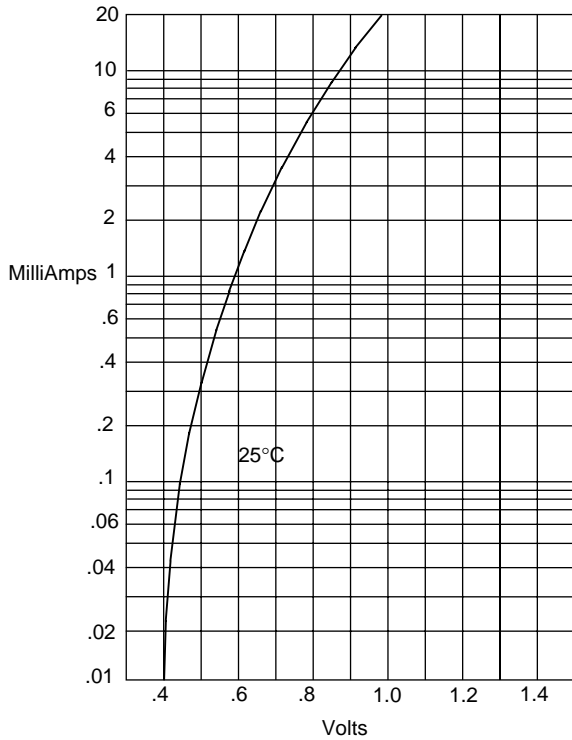
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

# 1N4148



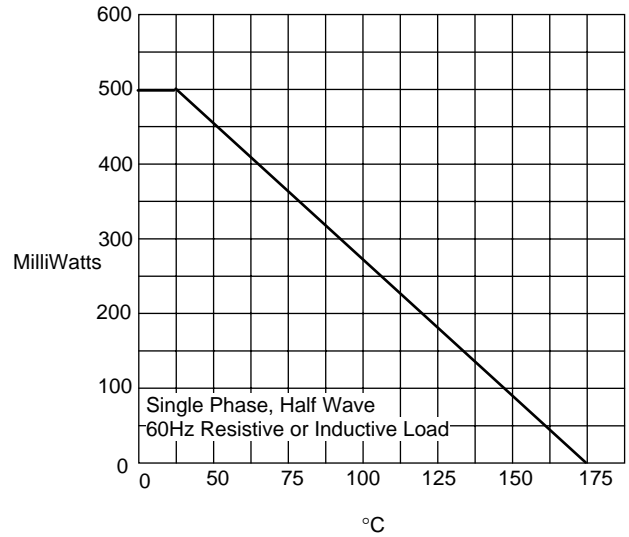
Micro Commercial Components

Figure 1  
Typical Forward Characteristics



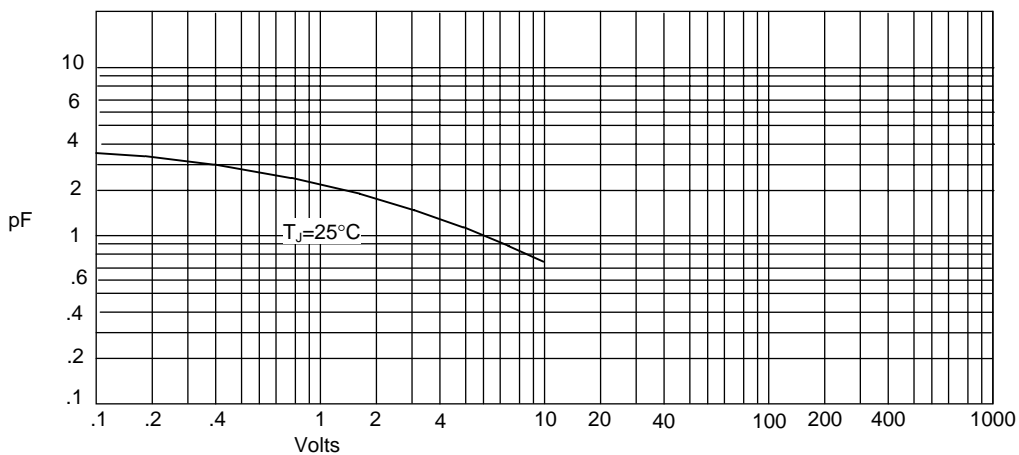
Instantaneous Forward Current - MilliAmperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Power Dissipation Derating Curve



Admissible Power Dissipation - MilliWatts versus  
Junction Temperature - °C

Figure 3  
Junction Capacitance



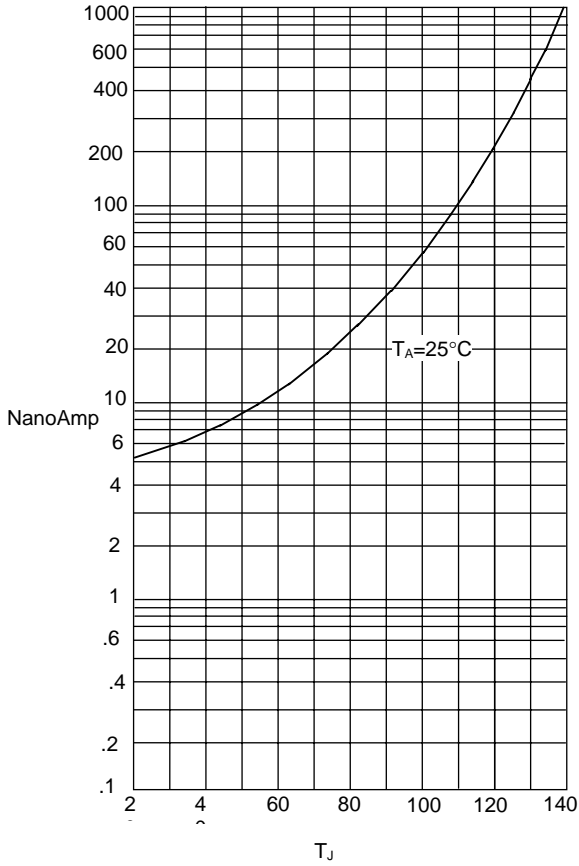
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# 1N4148



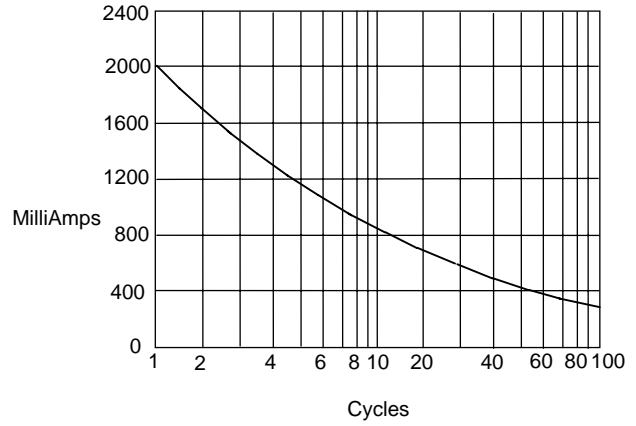
Micro Commercial Components

Figure 4  
Typical Reverse Characteristics



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

### \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp.* reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes .  
*Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*APPLICATIONS DISCLAIMER\*\*\*

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.