



Micro Commercial Components



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

1N4148

500mW High Speed  
Switching Diode  
100 Volt

**Features**

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

**Maximum Ratings**

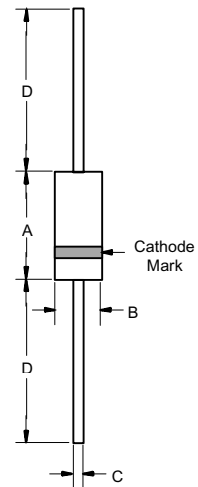
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 300K/W Junction To Ambient

**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 5.0µA 50µA	$V_R=20V; T_J = 25^\circ C$ $V_R=75V; T_J = 25^\circ C$ $V_R=20V; T_J = 150^\circ C$
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 µsec, Duty cycle 2%  
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.

DO-35



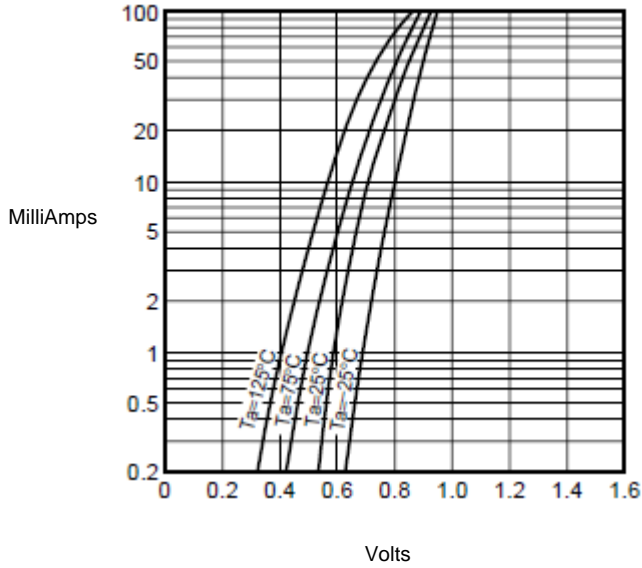
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

# 1N4148



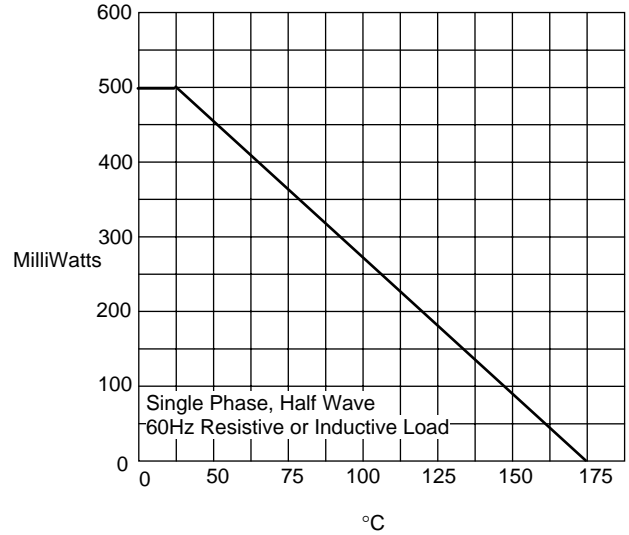
Micro Commercial Components

Figure 1  
Typical Forward Characteristics



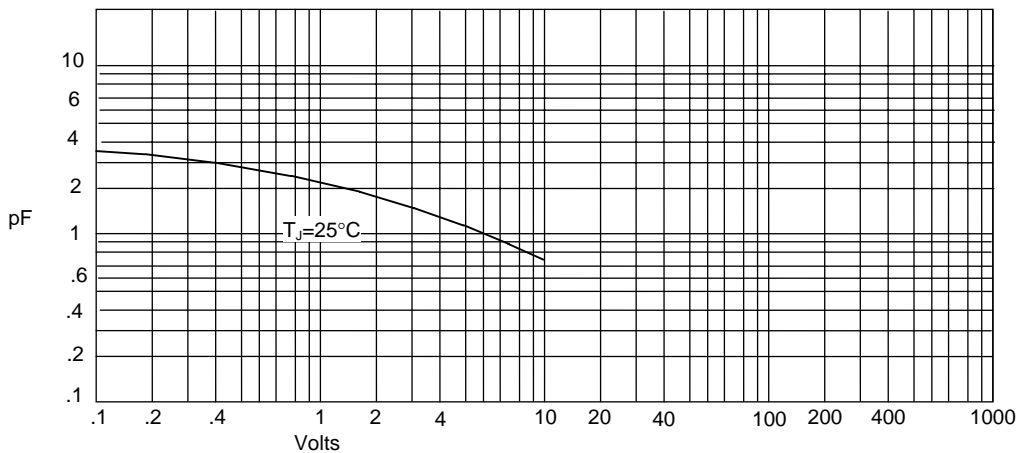
Instantaneous Forward Current - MilliAmperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Power Dissipation Derating Curve



Admissible Power Dissipation - MilliWatts versus  
Junction Temperature - °C

Figure 3  
Junction Capacitance



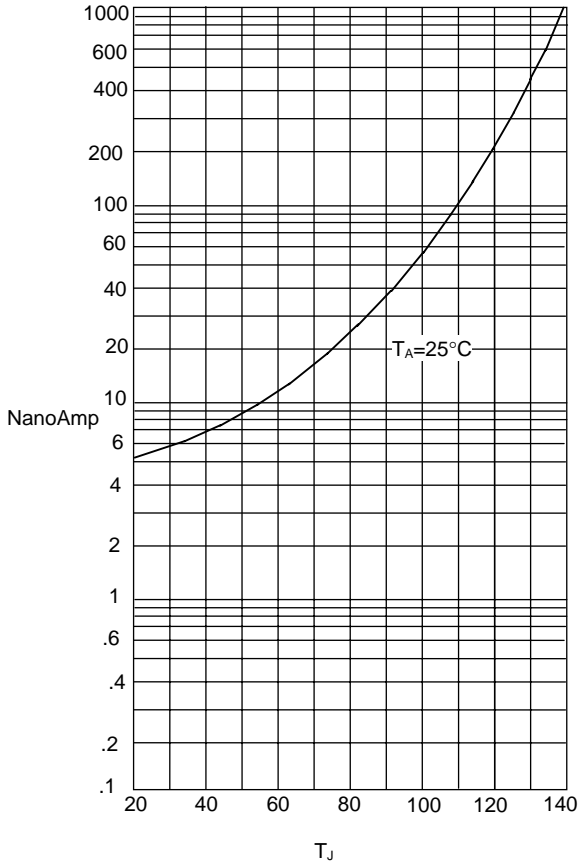
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# 1N4148



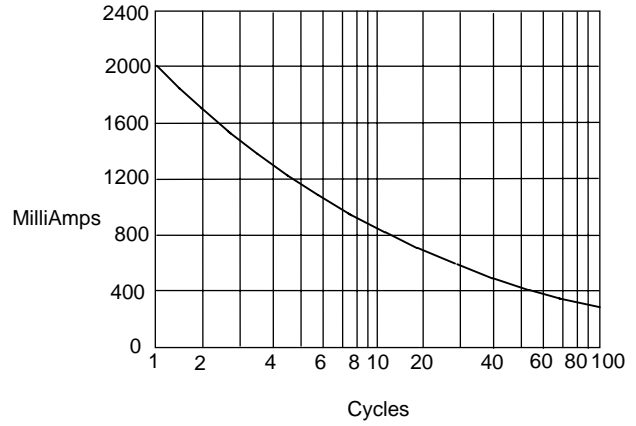
Micro Commercial Components

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/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

**\*\*\*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.

**\*\*\*LIFE SUPPORT\*\*\***

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

**\*\*\*CUSTOMER AWARENESS\*\*\***

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for* [Diodes - General Purpose, Power, Switching category:](#)

*Click to view products by* [Micro Commercial Components \(MCC\) manufacturer:](#)

Other Similar products are found below :

[RD0306T-H](#) [BAQ33-GS18](#) [BAV17-TR](#) [BAV19-TR](#) [1N3611](#) [NTE156A](#) [NTE525](#) [NTE571](#) [NTE574](#) [NTE5804](#) [NTE5806](#) [NTE6244](#)  
[1SS181-TP](#) [1SS193,LF](#) [1SS400CST2RA](#) [SDAA13](#) [SHN2D02FUTW1T1G](#) [LS4151GS08](#) [1N4449](#) [1N456A](#) [1N4934-E3/73](#) [1N914B](#)  
[1N914BTR](#) [RFUH20TB3S](#) [BAS 28 E6327](#) [BAV199-TP](#) [BAW56DWQ-7-F](#) [BAW75-TAP](#) [MM230L-CAA](#) [IDW40E65D1](#) [JAN1N3600](#)  
[LL4151-GS18](#) [053684A](#) [SMMSD4148T3G](#) [707803H](#) [SP000010217](#) [ACDSW4448-HF](#) [CDSZC01100-HF](#) [BAV199E6433HTMA1](#)  
[BAV70M3T5G](#) [SMBT2001T1G](#) [NTE5801](#) [NTE5800](#) [NTE5808](#) [NTE6240](#) [NTE6248](#) [DLM10C-AT1](#) [BAS28-7](#) [BAW56HDW-13](#) [BAS28](#)  
[TR](#)