

ROHS

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# 1N4001 THRU 1N4007

## **Features**

- Low Current Leakage and Low Cost
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

# **Maximum Ratings**

- Operating Temperature: -55°C to +150°C
   Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 35 °C/W Junction to Case

25°C/W Junction to Lead at 0.375"

Lead Length P.C.B. Mounted

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N4001	1N4001	Voltage 50V	35V	50V
1N4002	1N4002	100V	70V	100V
1N4003	1N4003	200V	140V	200V
1N4004	1N4004	400V	280V	400V
1N4005	1N4005	600V	420V	600V
1N4006	1N4006	800V	560V	800V
1N4007	1N4007	1000V	700V	1000V

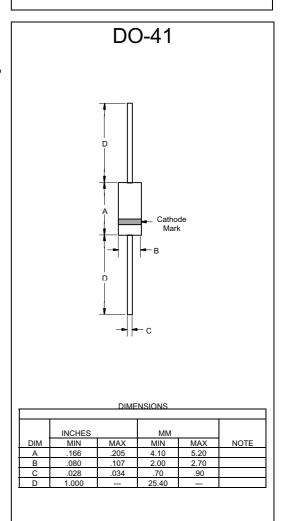
#### **Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	I <sub>F(AV)</sub>	1.0A	T <sub>A</sub> = 75°C
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.0V	I <sub>FM</sub> = 1.0A; T <sub>J</sub> = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0μA 50μA	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C
Typical Junction Capacitance	CJ	15pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V
Maximum Reverse Recovery Time	T <sub>rr</sub>	2.0us	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A
Rating for fusing	l <sup>2</sup> t	3.7A <sup>2</sup> s	t<8.3ms

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

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# 1 Amp Rectifier 50 - 1000 Volts

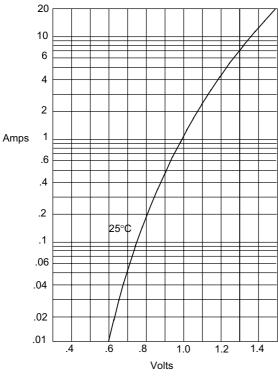


### 1N4001 thru 1N4007

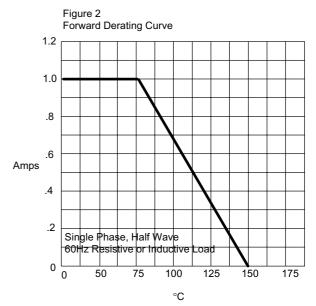
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Figure 1
Typical Forward Characteristics

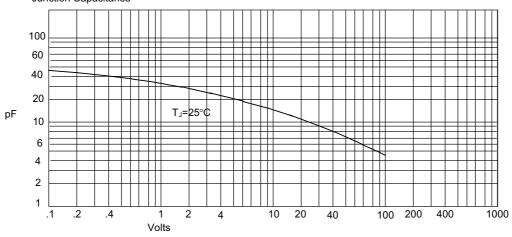


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes/ersus Ambient Temperature - $^{\circ}$ C



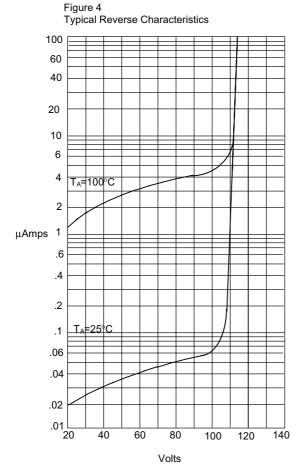


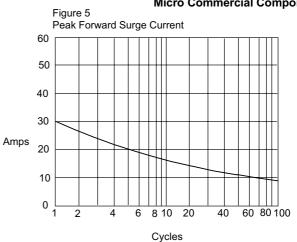
Junction Capacitance - pF*versus* Reverse Voltage - Volts

### 1N4001 thru 1N4007



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

Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts



### **Ordering Information:**

Device	Packing	
Part Number-TP	Tape&Reel: 5Kpcs/Reel	
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box	
Part Number-BP	Bulk: 50Kpcs/Carton	

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