

**M·C·C·**

Micro Commercial Components



Micro Commercial Components  
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## Features

- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Forward Voltage Drop and High Current Capability
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance; 28 °C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N5820	1N5820	20V	14V	20V
1N5821	1N5821	30V	21V	30V
1N5822	1N5822	40V	28V	40V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	3.0A	$T_A = 85^\circ C$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1N5820 1N5821 1N5822	$V_F$	.475V .500V .525V	$I_{FM} = 3.0A$ ; $T_J = 25^\circ C$ (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.5mA 20mA	$T_J = 25^\circ C$ $T_J = 100^\circ C$
Typical Junction Capacitance	$C_J$	200pF	Measured at 1.0MHz, $V_R=4.0V$

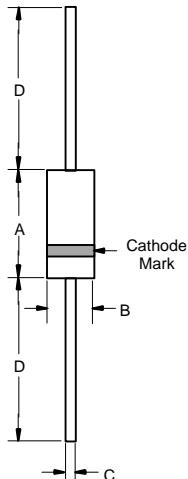
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

2. Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 1%

**1N5820  
THRU  
1N5822**

**3 Amp Schottky  
Barrier Rectifier  
20 - 40 Volts**

**DO-201AD**



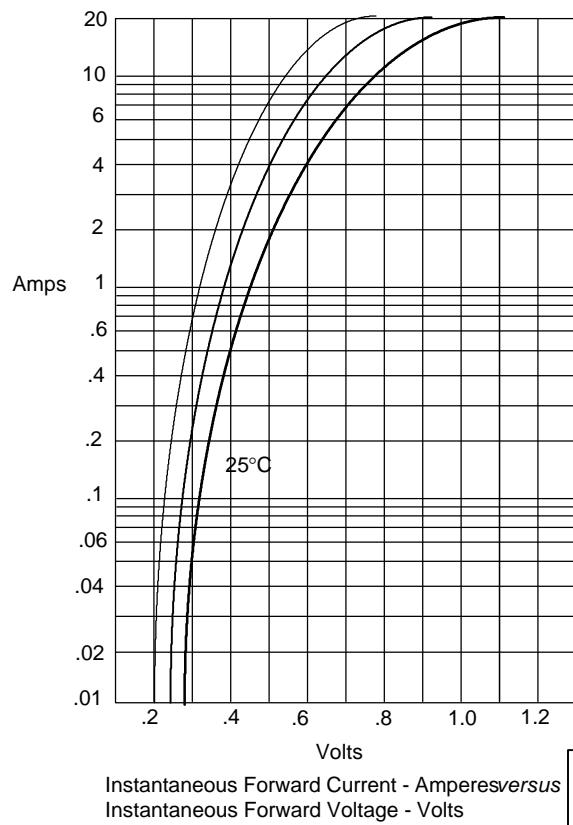
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.287	.374	7.30	9.50	
B	.189	.208	4.80	5.30	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

# 1N5820 thru 1N5822

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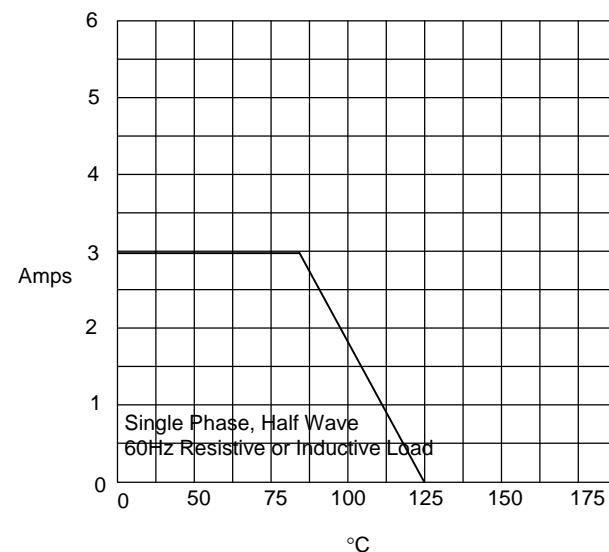
Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus  
Instantaneous Forward Voltage - Volts

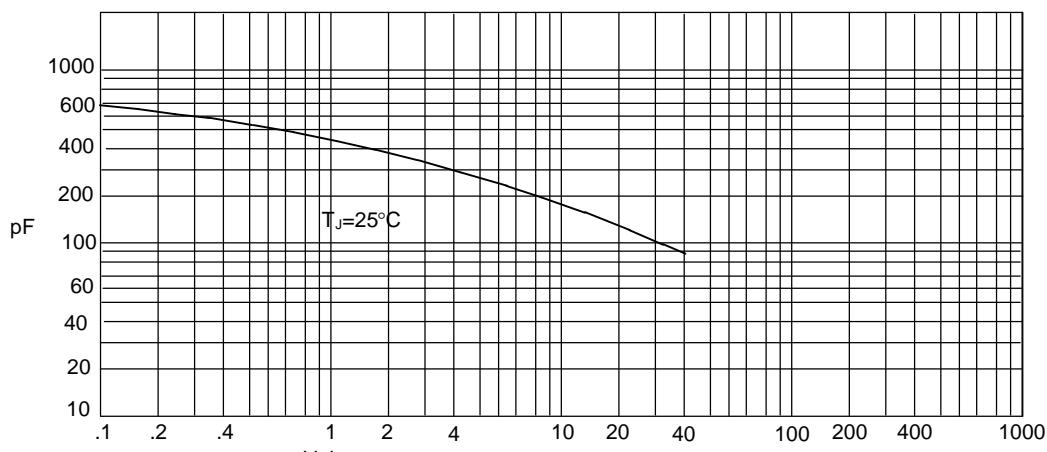
1N5820 \_\_\_\_\_  
1N5821 \_\_\_\_\_  
1N5822 \_\_\_\_\_

Figure 2  
Forward Derating Curve

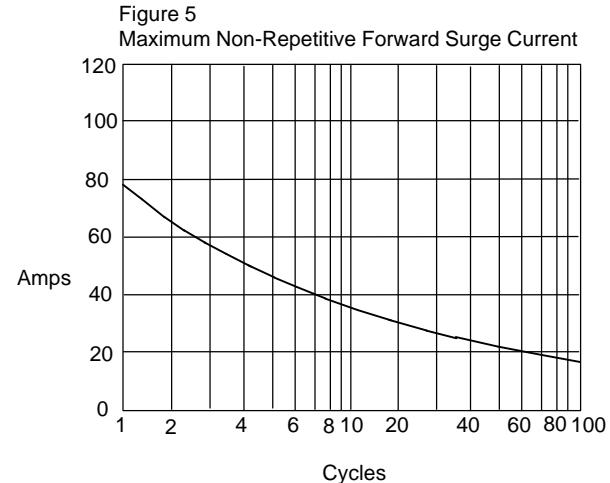
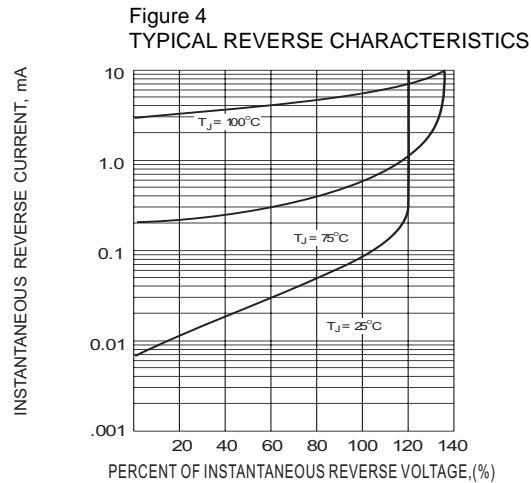


Average Forward Rectified Current - Amperesversus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pFversus  
Reverse Voltage - Volts



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

## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 12Kpcs/Carton

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