

**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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

# 1N5820 **THRU** 1N5822

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

### Features

- Halogen free available upon request by adding suffix "-HF" 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

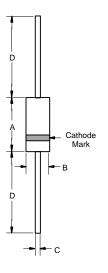
MCC	Device	Maximum	Maximum	Maximum
Catalog	Marking	Recurrent	RMS	DC
Number		Peak	Voltage	Blocking
		Reverse		Voltage
		Voltage		
1N5820	1N5820	20V	14V	20V
1N5821	1N5821	30V	21V	30V
1N5822	1N5822	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

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

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7. 2.Pulse test: Pulse width 300 µsec, Duty cycle 1%

## **DO-201AD**



P.I. I.						
DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.287	.374	7.30	9.50		
В	.189	.208	4.80	5.30		
С	.048	.052	1.20	1.30		
D	1.000		25.40			

### 1N5820 thru 1N5822



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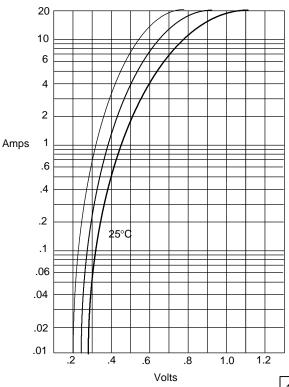
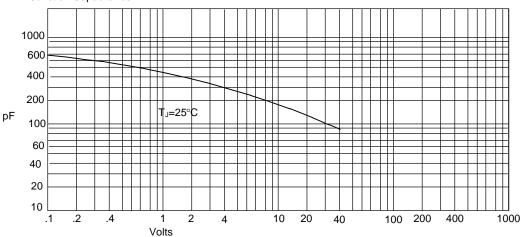


Figure 2 Forward Derating Curve 6 5 4 3 Amps Single Phase, Half Wave 60Hz Resistive or Inductive Load 50 75 100 125 150 175  $^{\circ}\text{C}$ 

Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C

Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

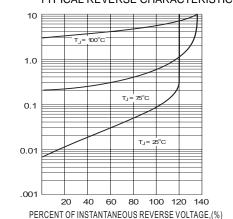


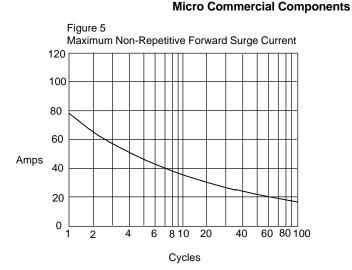


Junction Capacitance - pF*versus* Reverse Voltage - Volts INSTANTANEOUS REVERSE CURRENT, mA



Figure 4
TYPICAL REVERSE CHARACTERISTICS





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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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