



Micro Commercial Components

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# 1N5820 THRU 1N5822

## Features

- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

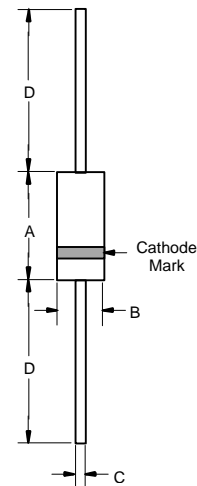
## 3 Amp Schottky Barrier Rectifier 20 - 40 Volts

## 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

## DO-201AD



## Electrical Characteristics @ 25°C Unless Otherwise Specified

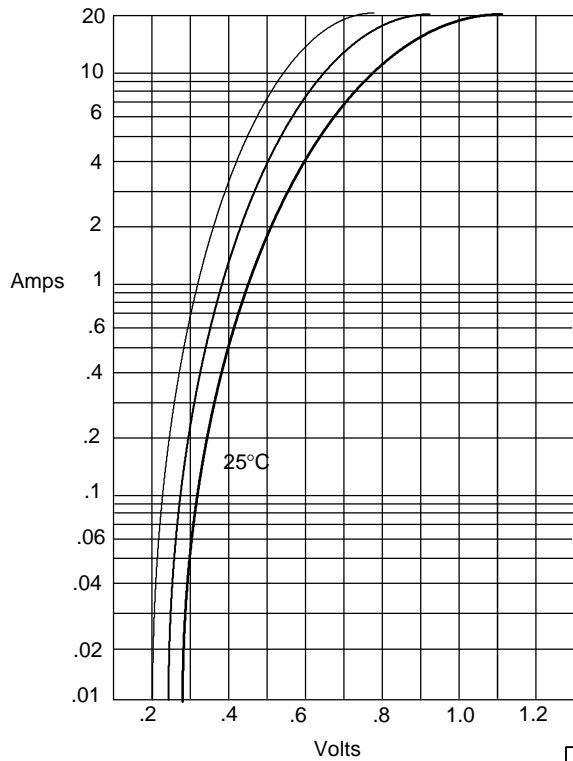
Average Forward Current	$I_{F(AV)}$	3.0A	$T_A = 85^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.475V .500V .525V	$I_{FM} = 3.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	2.0mA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	200pF	Measured at 1.0MHz, $V_R=4.0V$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

DIM	DIMENSIONS				NOTE
	INCHES		MM		
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

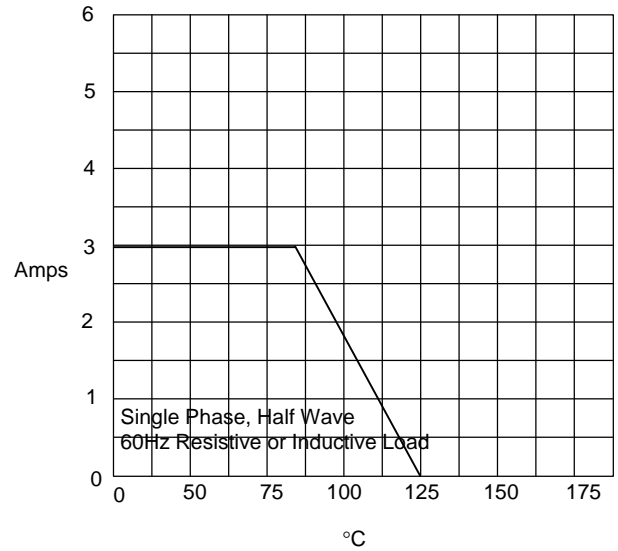
Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

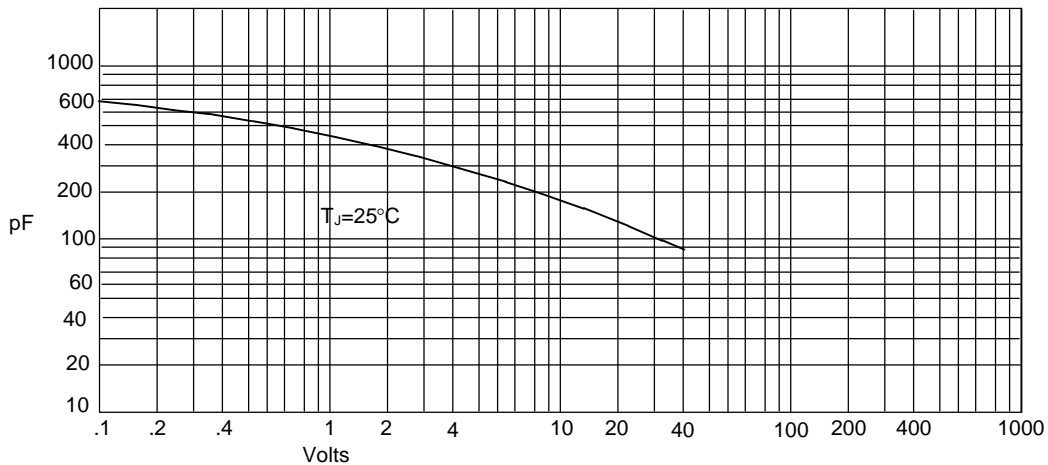
1N5820	— (top curve)
1N5821	— (middle curve)
1N5822	— (bottom curve)

Figure 2  
Forward Derating Curve



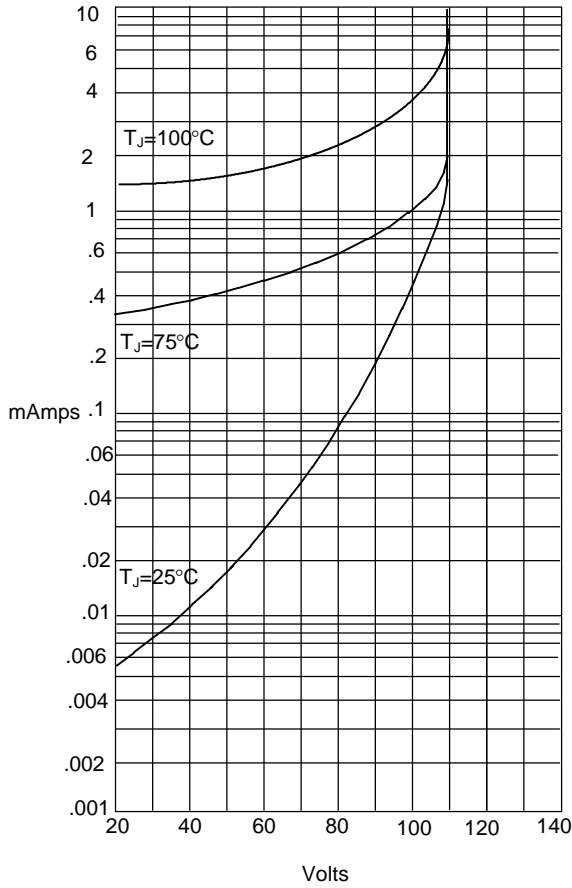
Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



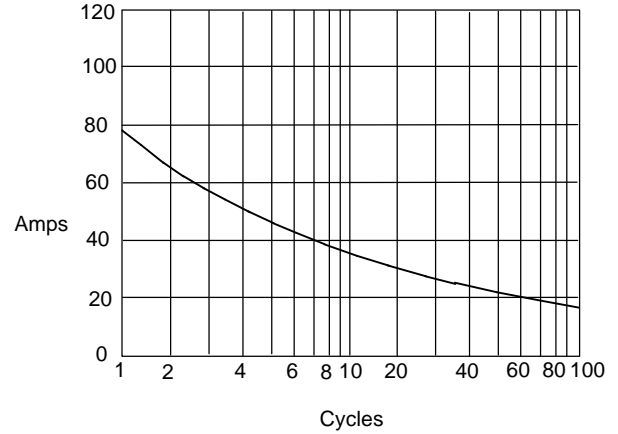
Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles



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