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1N5820 THRU 1N5822

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant.)
- Low Forward Voltage Drop and High Current Capability
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

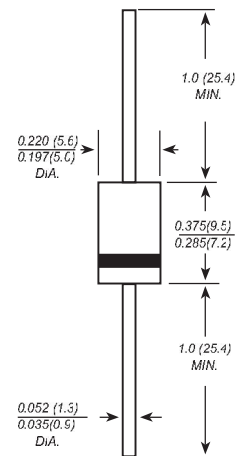
3 Amp Schottky Barrier Rectifier 20 - 40 Volts

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

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



Dimensions in inches and (millimeters)

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	$I_{FM} = 3.0\text{A};$ $T_J = 25^\circ\text{C}(\text{Note } 2)$
1N5820		.500V	
1N5821		.525V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	200pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

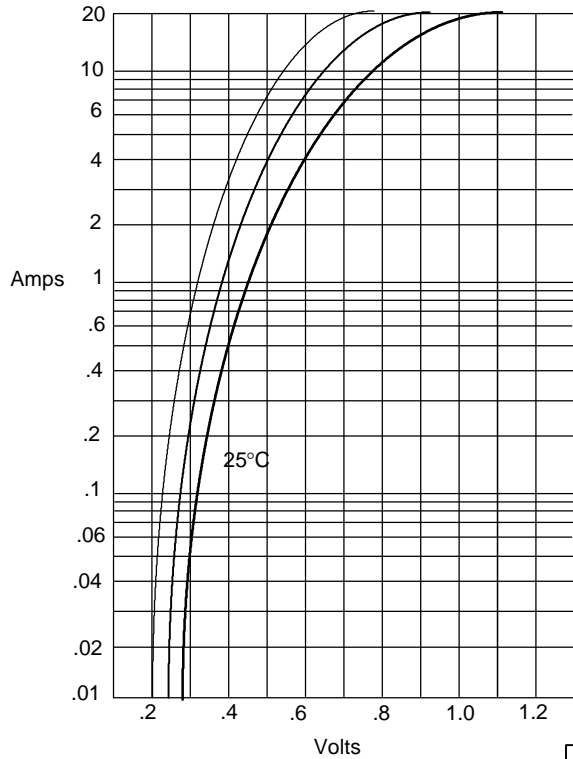
Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

2.Pulse test: Pulse width 300 μsec , Duty cycle 1%



1N5820 thru 1N5822

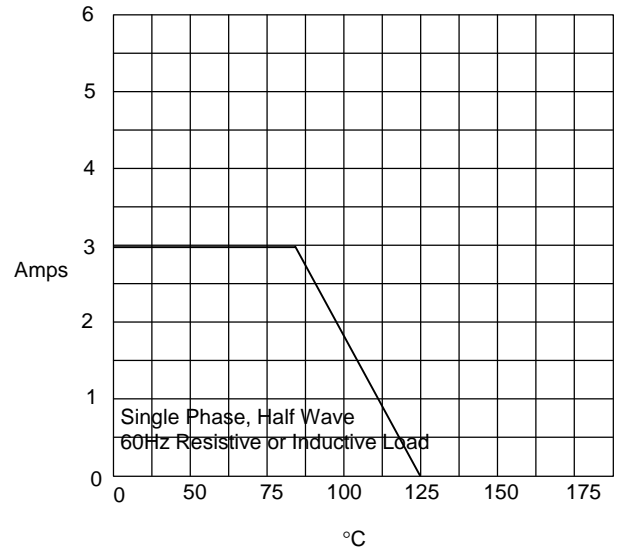
Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

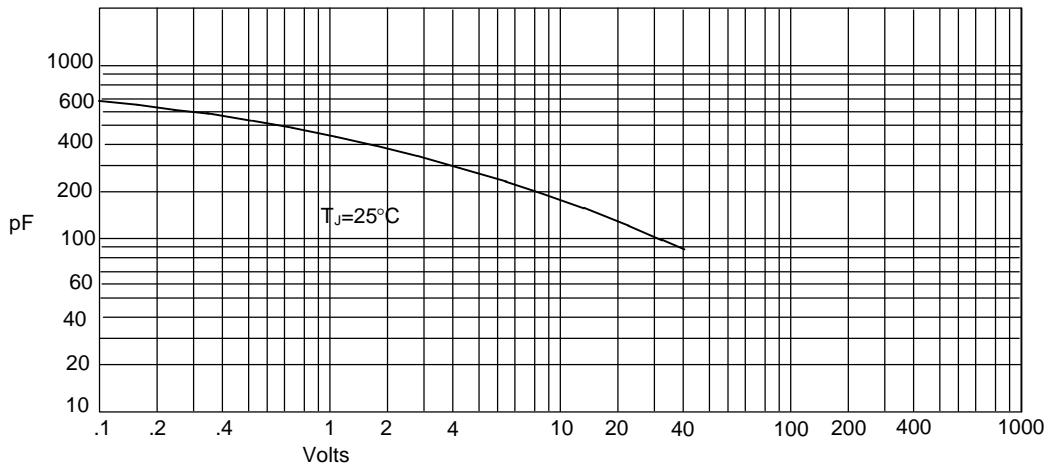
1N5820	—
1N5821	—
1N5822	—

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



1N5820 thru 1N5822

Figure 4
TYPICAL REVERSE CHARACTERISTICS

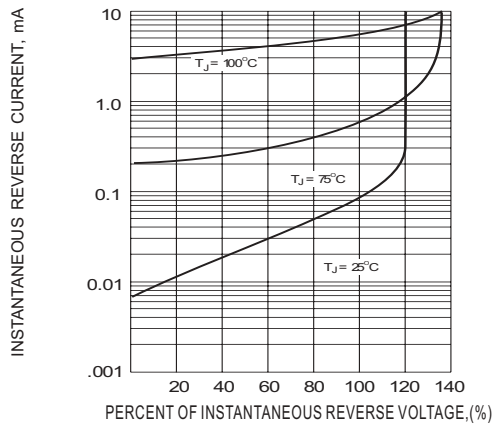
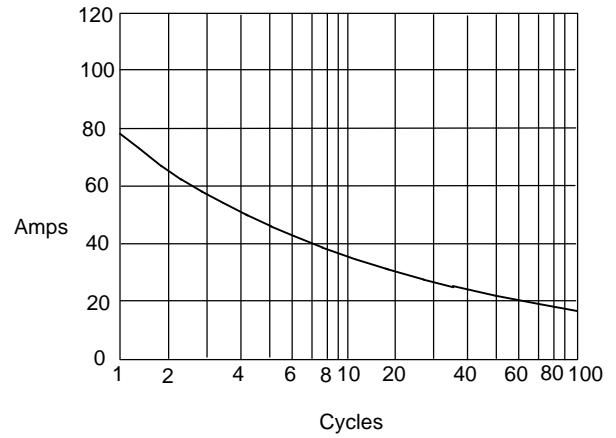


Figure 5
Maximum Non-Repetitive Forward Surge Current



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