1N5820 THRU 1N5822

3 A Schottky Barrier Rectifiers

Voltage Range 20 to 40 Volts
Current 3.0 Amperes

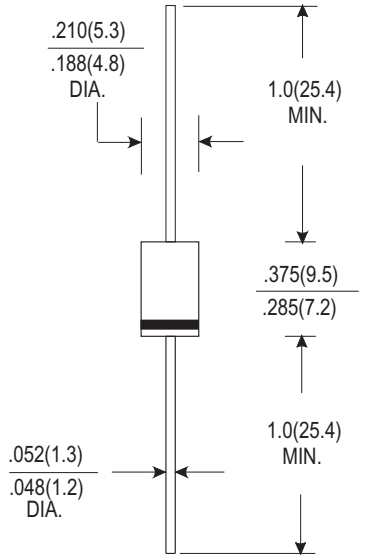
Features

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

Mechanical Data

* Cases: molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
* Polarity: color band denotes cathode end
* High temperature soldering guaranteed: 250°C/10seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
* Weight: 1.2 gram

DO-201 AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	1N5820	1N5821	1N5822	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current.375" (9.5mm) Lead Length @T_L=90°C	3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)	80			A
Maximum Instantaneous Forward Voltage @ 3.0A	0.48	0.50	0.53	V
Maximum DC Reverse Current @ T_A=25°C	0.5			mA
At Rated DC Blocking Voltage @ T_A=100°C	10			mA
Typical Thermal Resistance (Note 1) RθJA	40			°C /W
Typical Junction Capacitance (Note 2)	250			pF
Operating Temperature Range T_J	-55 to +150			°C
Storage Temperature Range T_{STG}	-55 to +150			°C

Notes:

1. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting, 0.375"(9.5mm) Lead Length.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

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RATINGS AND CHARACTERISTIC CURVES (1N5820 THRU 1N5802)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

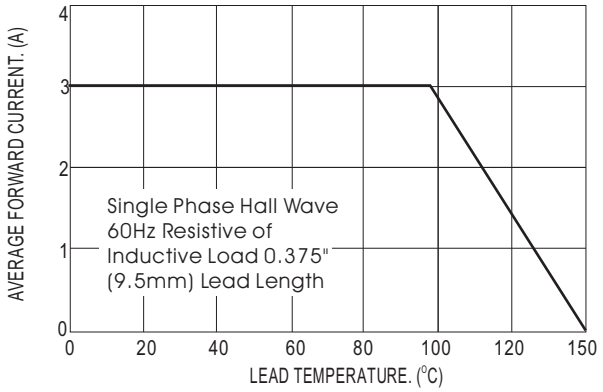

FIG.2-TYPICAL FORWARD CHARACTERISTICS

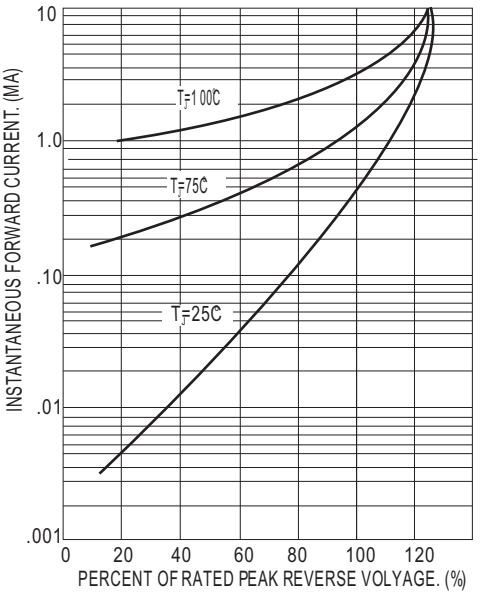

FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

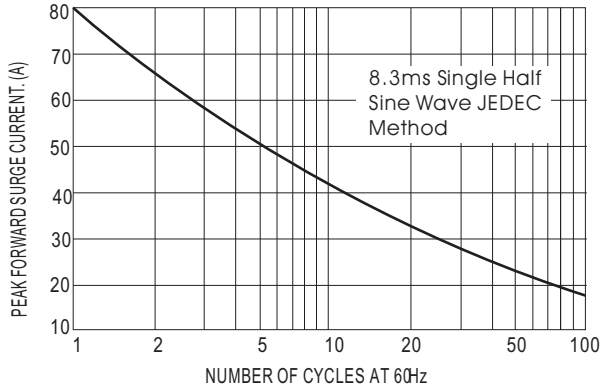

FIG.4- TYPICAL FORWARD CHARACTERISTICS

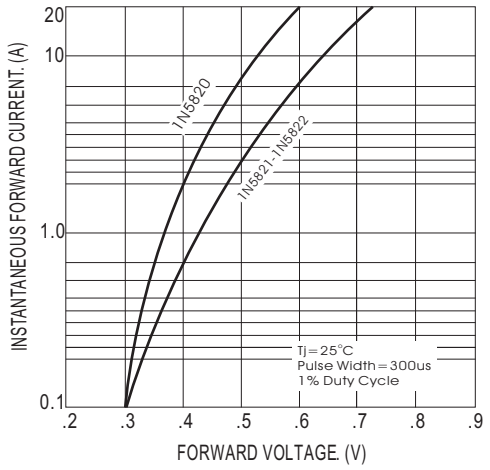

FIG.5-TYPICAL JUNCTION CAPACITANCE