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Schottky Barrier Rectifiers

3 A Series 1N5820-1N5822

Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, alcohol, Chloroethene and similar solvents
- The plastic material carries U/L recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

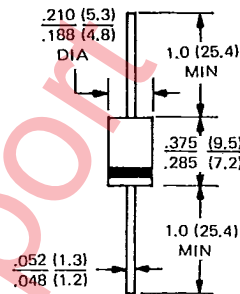
Voltage Range

20, 30, 40 Volts

Current

3.0 Amperes

DO-201-AD



Mechanical Data

Case: JEDEC DO-201AD Molded plastic
 Terminals: Axial leads, solderable per MIL-STD-202, Method 208
 Polarity: Color band denotes cathode end
 Mounting Position: Any
 Weight: 0.04 ounces, 1.12 grams

Maximum Ratings and Electrical Characteristics

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

	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 3/8" Lead Length TA = 75° C		3.0		A
* Peak Forward Surge Current 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method) TL = 80° C		80		A
* Maximum Forward Voltage at 3.0A DC	.475 DC	.500	.525	V
* Maximum Forward Voltage at 9.4A DC	.850	.900	.950	V
* Maximum DC Average Reverse Current at Peak Reverse Voltage TA = 25° C		2.0		mA
		20		mA
Typical Thermal Resistance (Note 1)		28		°C/W
Typical Junction Capacitance (Note 2)		190		pF
* Operating Temperature Range		-65 to +125		°C
Storage Temperature Range		-65 to +125		°C

NOTES: 1. Thermal Resistance Junction to Ambient Vertical PC Board Mounting, 1/2" Lead Length
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts *JEDEC registered values

Rating and Characteristic Curves 1N5820 - 1N5822

FIG. 1-FORWARD CURRENT DERATING CURVE

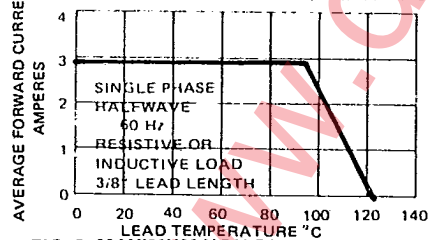


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

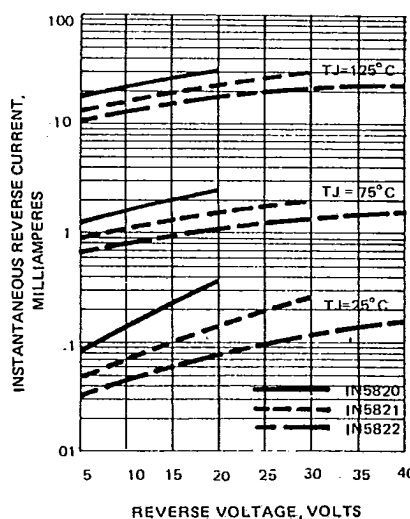


FIG. 4-TYPICAL FORWARD CHARACTERISTICS

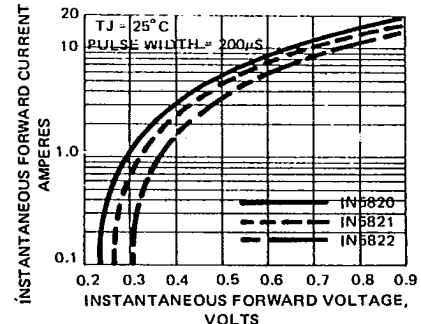


FIG. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

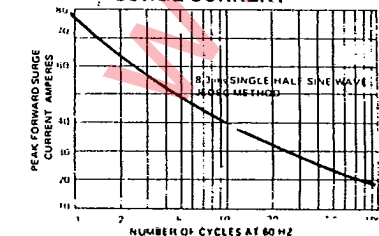
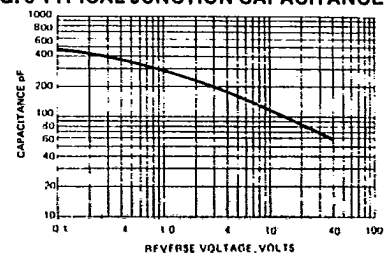


FIG. 5-TYPICAL JUNCTION CAPACITANCE



NOTE: Special Silicon Rectifiers are also available