



DATA SHEET

SEMICONDUCTOR

1N5820~1N5822

3 AMPERE SCHOTTKY BARRIER RECTIFIERS



VOLTAGE - 20 to 40 Volts CURRENT - 3.0 Ampere

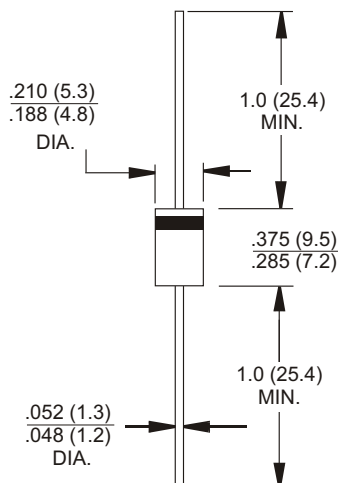
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- 3 ampere operation at TA=95°C with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage,high frequency inverters ,free wheeling ,and polarity protection applications .
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-202,Method 208
- Polarity: Color band denotes cathode
- Mounting Position: Any

DO-201AD Unit:inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.

	1N5820	1N5821	1N5822	UNIT
Peak Reverse Voltage,Repetitive ; VRM	20	30	40	V
Maximum RMS Voltage	14	21	28	V
DC Reverse Voltage; VR	20	30	40	V
Maximum Forward Voltage at 3.0A	0.475	0.500	0.525	V
Maximum Forward Voltage at 9.4A	0.850	0.900	0.950	
Maximum Average Forward Rectified Current .375" Lead Length at TA=95°C	3.0			A
Peak Forward Surge Current, IFM (surge):8. 3ms single half sine-wave superimposed on rated load(JEDEC method)TA=75°C	80			A
Maximum DC Reverse Current at TA=25°C	0.5			mA
At Rated DC Blocking Voltage TA=100°C	20			mA
Typical Thermal Resistance RθJA(Note 1)	28			°C / W
Typical Junction capacitance (Note 2)	190			pF
Operating Temperature Range TJ	-55 to +150			°C

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Thermal Resistance from Junction to Ambient .

DEVICE CHARACTERISTICS

1N5820~1N5822

FIG. 1 - FORWARD CURRENT DERATING CURVE

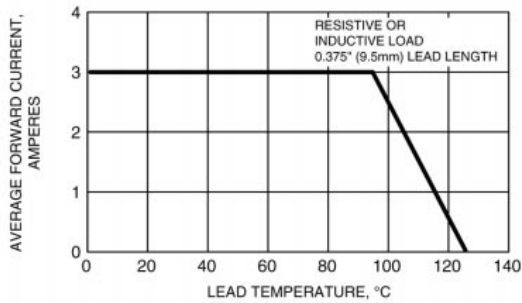


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

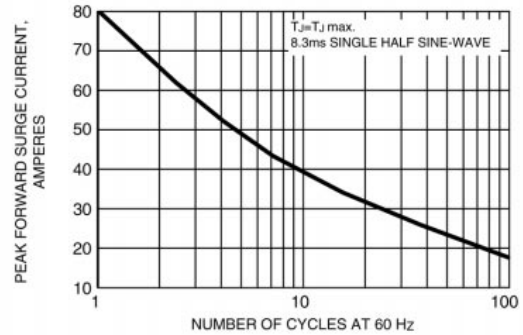


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

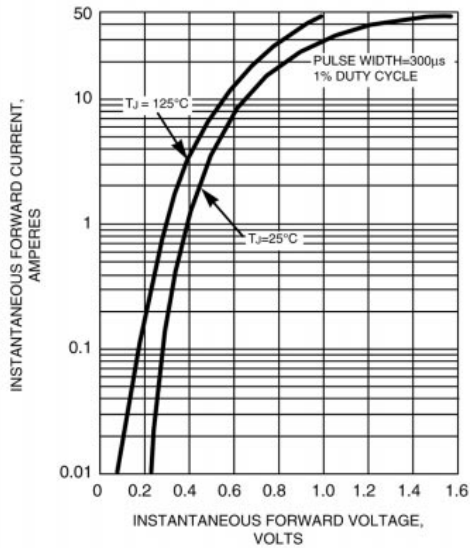


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

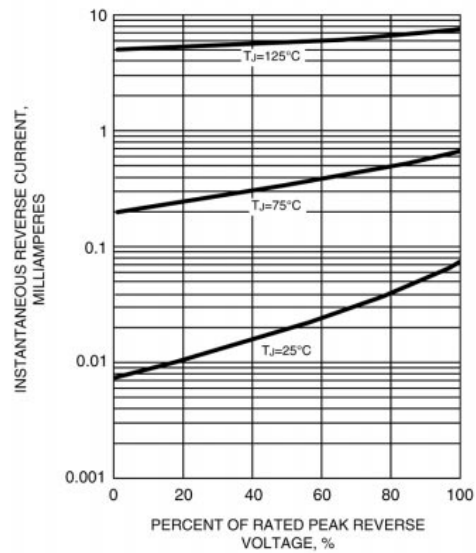


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

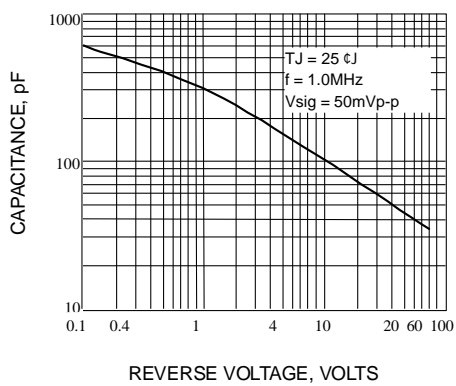


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

