



1N5820 THRU 1N5822

3.0 AMPS. Schottky Barrier Rectifiers

	Voltage Range 20 to 40 Volts Current 3.0 Amperes
<p>Features</p> <ul style="list-style-type: none"> ✧ Low forward voltage drop ✧ High current capability ✧ High reliability ✧ High surge current capability <p>Mechanical Data</p> <ul style="list-style-type: none"> ✧ Cases: DO-201AD 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: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension ✧ Weight: 1.10 grams 	<p>DO-201AD</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

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	Symbol	1N5820	1N5821	1N5822	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_L = 90^\circ\text{C}$	$I_{(AV)}$	3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80			A
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	0.475	0.500	0.525	V
Maximum Instantaneous Forward Voltage @ 9.0A	V_F	0.850	0.900	0.950	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	2.0 20			mA mA
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$	40			$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_j	200			pF
Operating Temperature Range	T_J	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +125			$^\circ\text{C}$

Notes: 1. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (1N5820 THRU 1N5822)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

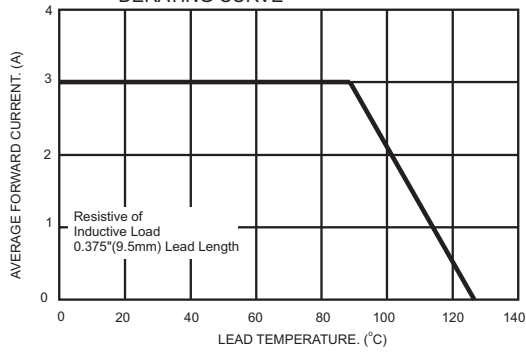


FIG.2- TYPICAL REVERSE CHARACTERISTICS

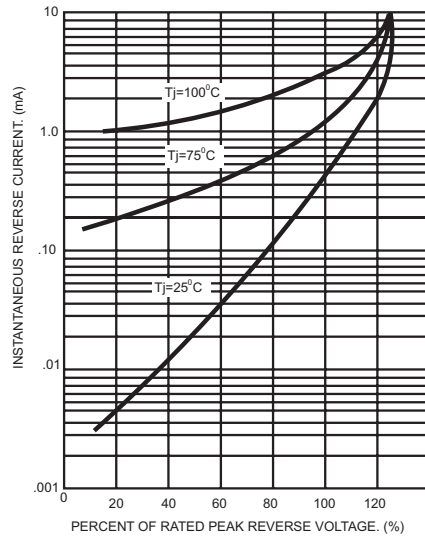


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

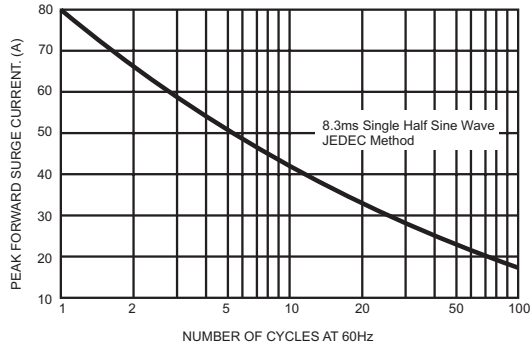


FIG.4- TYPICAL FORWARD CHARACTERISTICS

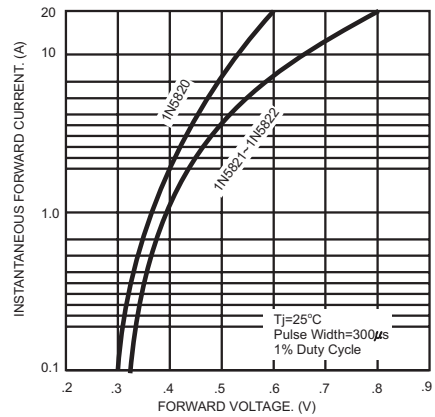


FIG.5- TYPICAL JUNCTION CAPACITANCE

