1N5820 THRU 1N5822

3.0 AMPS. SCHOTTKY BARRIER RECTIFIERS

Voltage Range
20 to 40 Volts
Current
3.0 Amperes

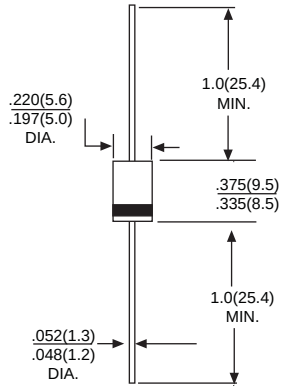
Features

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

Mechanical Data

*Cases: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: 250°C/10 seconds/.375",(9.5mm) lead lengths at 5 lbs.,(2.3kg) tension
*Weight:1.10 grams

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number		1N5820	1N5821	1N5822	UNIT
Maximum Repetitive 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 @TL=90°C	$I_{F(AV)}$	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
Maximun DC Reverse Current @ T_A = 25°C at Rated DC Blocking Voltage @ T_A = 100°C	I_R	2.0 20			mA mA
Typical Thermal Resistance(Note 1)	R^*_{JA}	40			°C/W
Typical Junction Capacitance (Note 2)	C_J	250			pF
Operating Temperature Range	T_J	-55 to+125			°C
Storage Temperature Range	T_{STG}	-55 to+125			°C

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

RATING AND CHARACTERISTIC CURVES
1N5820 THRU 1N5822

FIG.1- FORWARD CURRENT DERATING CURVE

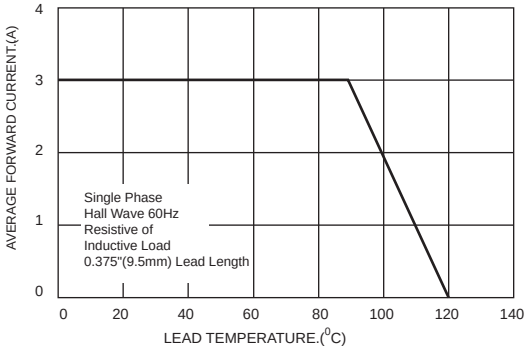


FIG.2-TYPICAL REVERSE CHARACTERISTICS

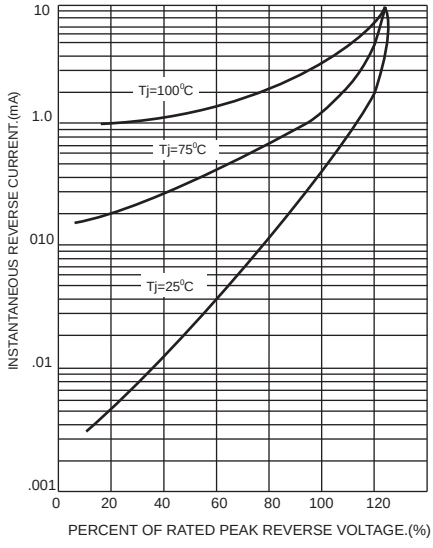


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

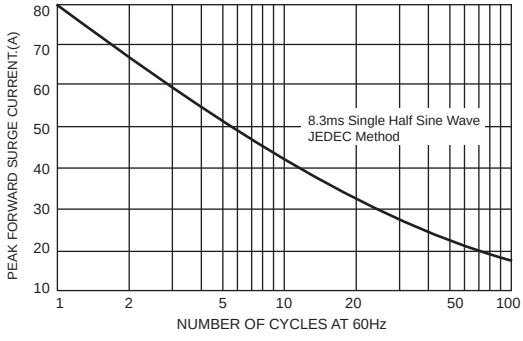


FIG.4-TYPICAL FORWARD CHARACTERISTICS

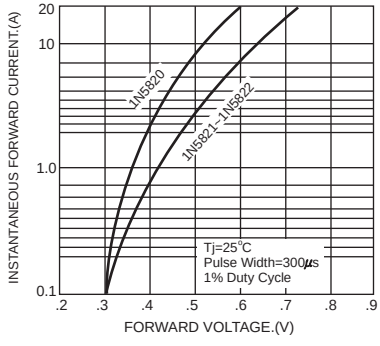


FIG.5-TYPICAL JUNCTION CAPACITANCE