



# DATA SHEET

## 1N5820~1N5822

### SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 40 Volts **CURRENT** 3.0 Ampere

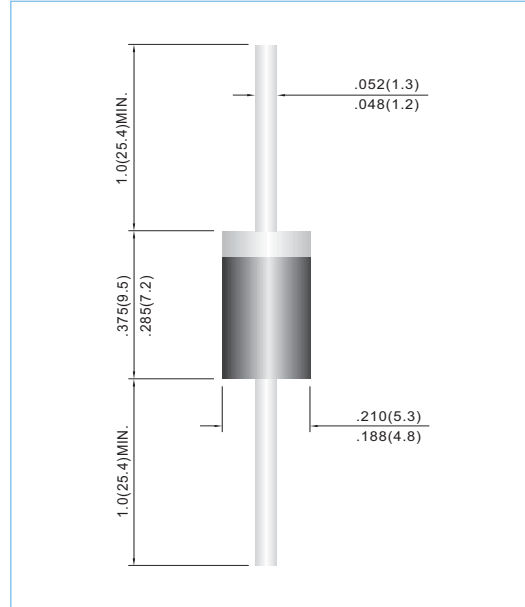
**DO-201AD** Unit: inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage,high frequency inverters ,free wheeling ,and polarity protection applications .
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: DO-201AD Molded plastic  
 Terminals: Axial leads, solderable per MIL-STD-202G,Method 208  
 Polarity: Color band denotes cathode  
 Mounting Position: Any  
 Weight: 0.04 ounces, 1.1 grams



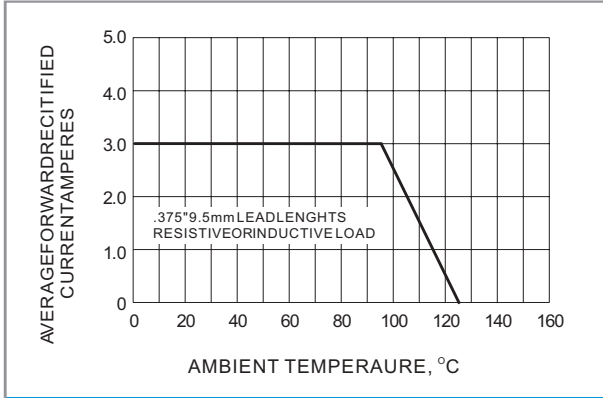
#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

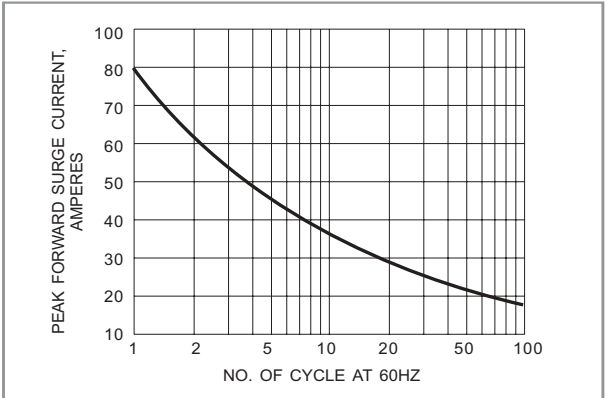
PARAMETER	SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_a = 95^\circ\text{C}$	$I_{AV}$	3			A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	80			A
Maximum Forward Voltage at 3.0A Maximum Forward Voltage at 9.4A	$V_F$	0.475 0.850	0.500 0.900	0.525 0.950	V
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.5 20			mA
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	40 10			$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-50 TO +125			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-50 TO +150			$^\circ\text{C}$



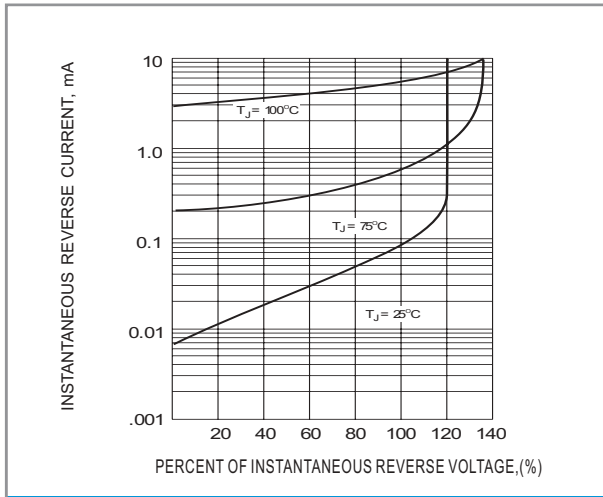
**RATING AND CHARACTERISTIC CURVES**



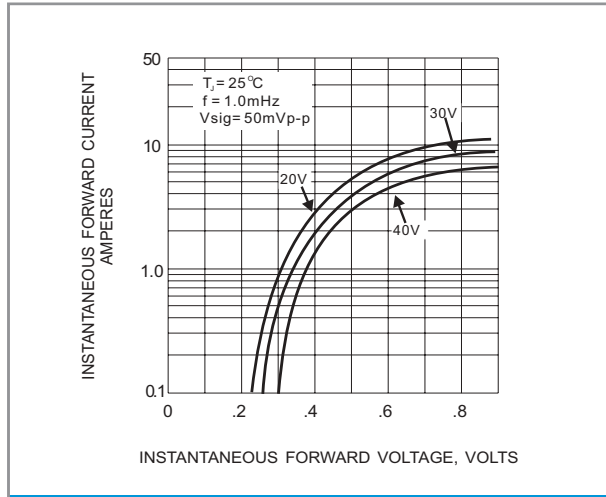
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**