



1N5820~1N5822

SCHOTTKY BARRIER RECTIFIERS

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

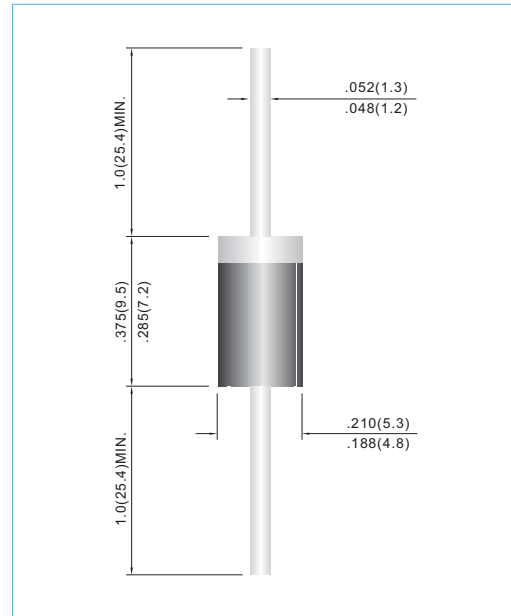
DO-201AD Unit: inch(mm)

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 .
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.0395 ounces, 1.122 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 $T_L=95^\circ\text{C}$	$I_{F(AV)}$	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 $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=100^\circ\text{C}$	I_R	0.2 20			mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	40 10			$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	-55 to +125		-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$

Notes :

1. Measured at ambient temperature at a distance of 9.5mm from the case.
2. Pulse test : 300μs pulse width , 1% duty cycle.



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RATING AND CHARACTERISTIC CURVES

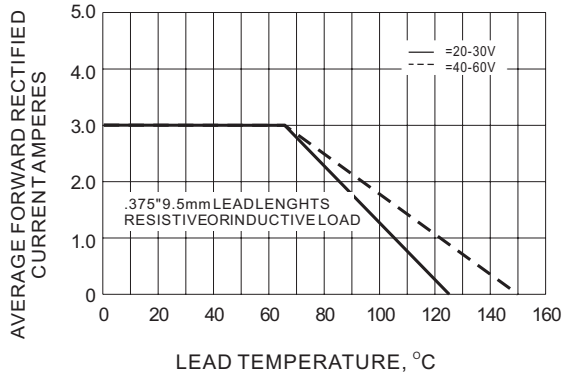


Fig.1- FORWARD CURRENT DERATING CURVE

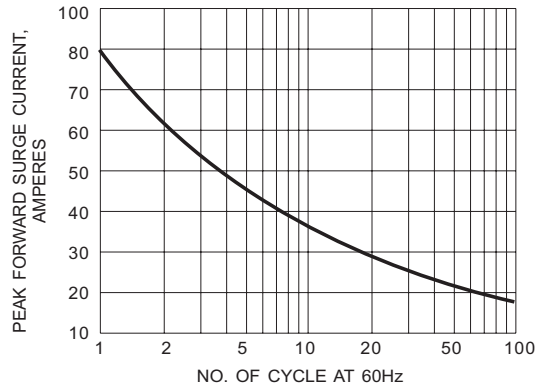


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

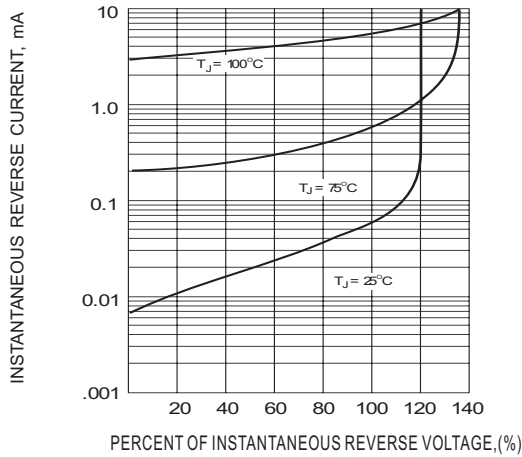


Fig.3- TYPICAL REVERSE CHARACTERISTICS

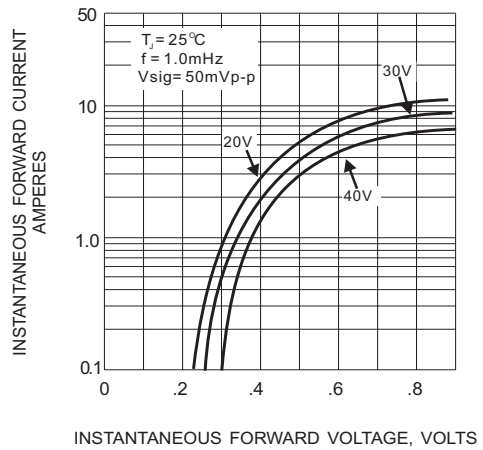


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS