



## 1N5820 THRU 1N5822

### SCHOTTKY BARRIER RECTIFIER

TECHNICAL  
SPECIFICATION

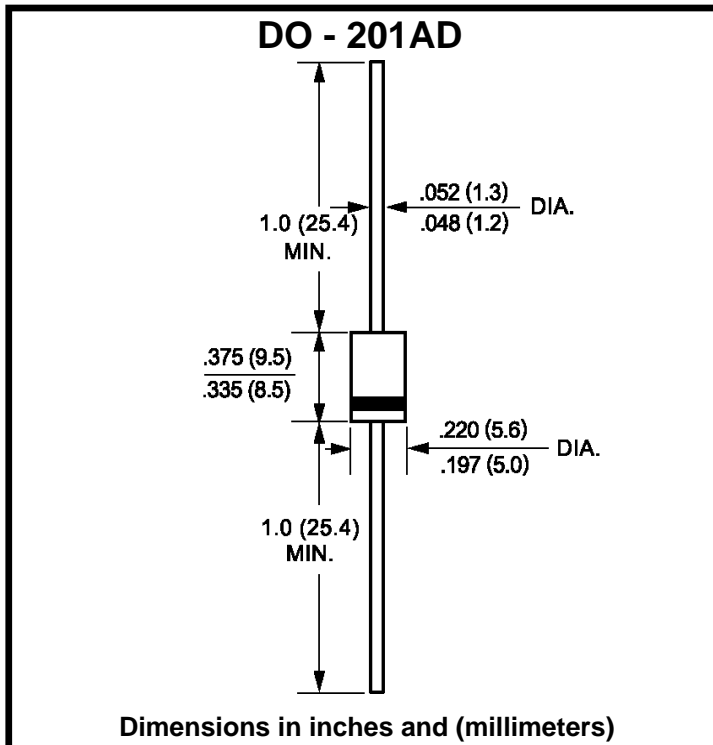
**VOLTAGE: 20 TO 40V CURRENT: 3.0A**

#### FEATURES

- Epitaxial construction for chip
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed:  
250°C/10sec/0.375"(9.5mm) lead length  
at 5 lbs tension

#### MECHANICAL DATA

- Terminal: Plated axial leads solderable per  
MIL-STD 202E, method 208C
- Case: Molded with UL-94 Class V-O  
recognized flame retardant epoxy
- Polarity: Color band denotes cathode
- Mounting position: Any



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Single-phase, half-wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

RATINGS	SYMBOL	1N5820	1N5821	1N5822	UNITS
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 (9.5mm lead length, at $T_L=95^\circ\text{C}$ )	$I_{F(AV)}$	3.0			A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	$I_{FSM}$	80			A
Maximum Forward Voltage (at 3.0A DC)	$V_F$	0.475	0.5	0.525	V
Maximum DC Reverse Current (at rated DC blocking voltage)	$I_R$	$T_a=25^\circ\text{C}$	2.0		mA
		$T_a=100^\circ\text{C}$	10.0		mA
Typical Junction Capacitance (Note 1)	$C_J$	250			pF
Typical Thermal Resistance (Note 2)	$R_\theta(ja)$	40			$^\circ\text{C/W}$
Storage and Operation Junction Temperature	$T_{STG}, T_J$	-65 to +125			$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, vertical P.C. board mounted