



# 1N5820U THRU 1N5822U

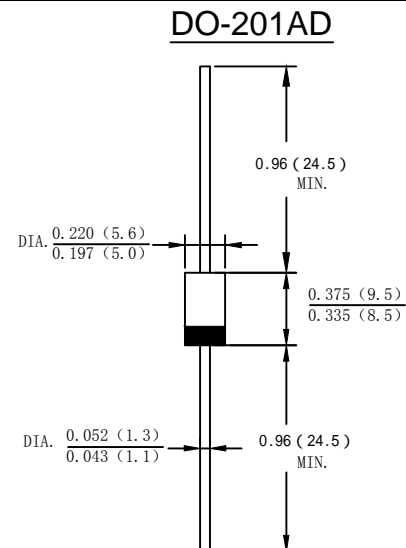
## 3.0 AMP. Schottky Barrier Rectifiers

### Features

- Low power loss,high efficiency.
- High reliability
- High surge current capability.
- Epitaxial construction.
- For use in low voltage, high frequen inverters free wheeling and polarity protection applications
- Plastic package has Underwriters Laboratory Plammability Classification 94V-0 utilizing

### Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any



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	SYMBOL	1N5820U	1N5821U	1N5822U	Unit
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
Average Rectified Output Current (Note 1) @ $T_A=95^\circ\text{C}$	$I_o$	3.0			A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	90			A
Forward Voltage @ $I_F=3.0\text{A}$	$V_{FM}$	0.50			V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	0.1 10.0			mA
Typical Junction Capacitance	$C_J$	250			pF
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	20			$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to + 150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to + 150			$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2.P.C.B.mounted with 0.2×0.2" (5.0×5.0mm) copper pad areas

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Fig. 1-FORWARD CURRENT DERATING CURVE

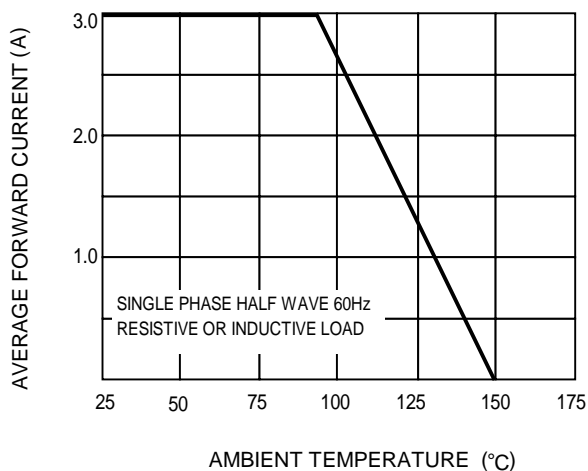
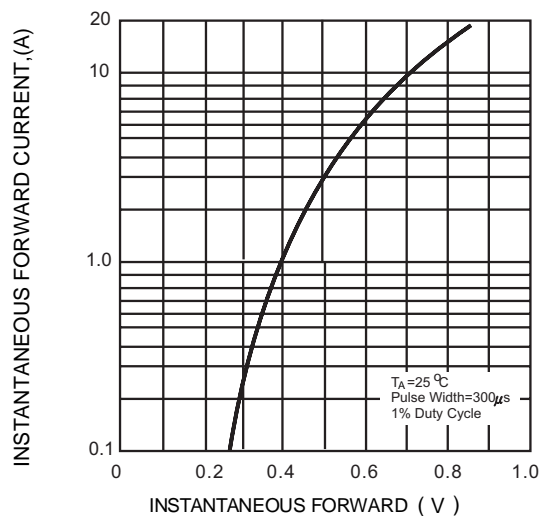


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

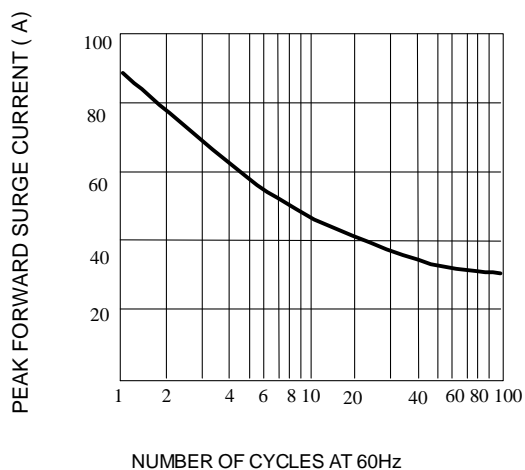


FIG.4-TYPICAL JUNCTION CAPACITANCE

