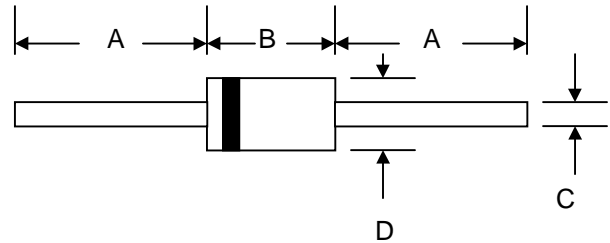


### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

DO-201AD		
Dim	Min	Max
A	25.4	—
B	8.50	9.50
C	1.20	1.30
D	5.0	5.60
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	1N5820	1N5821	1N5822	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$				V
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current (Note 1) @ $T_L = 90^\circ\text{C}$	$I_O$	3.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @ $T_L = 75^\circ\text{C}$	$I_{FSM}$	80			A
Forward Voltage @ $I_F = 3.0\text{A}$ @ $I_F = 9.4\text{A}$	$V_{FM}$	0.475 0.850	0.50 0.90	0.525 0.950	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	$I_{RM}$	2.0 20			mA
Typical Junction Capacitance (Note 2)	$C_j$	250			pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	20			K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150			$^\circ\text{C}$

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

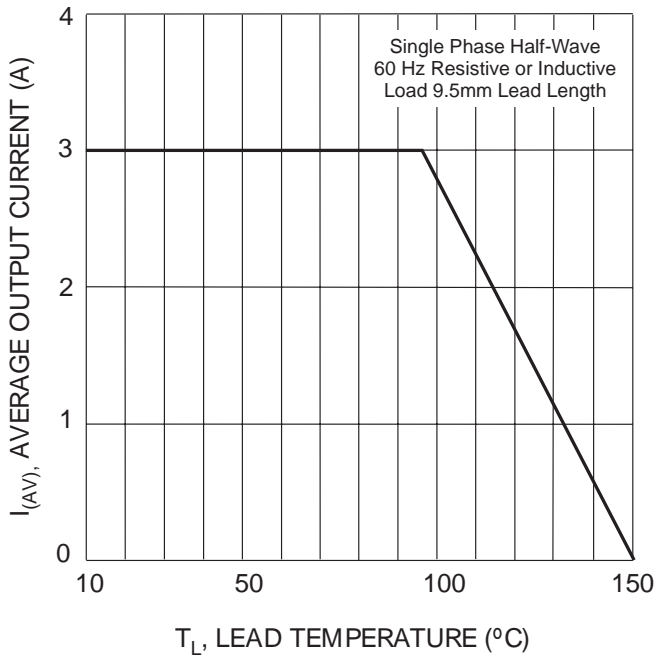


Fig. 1 Forward Current Derating Curve

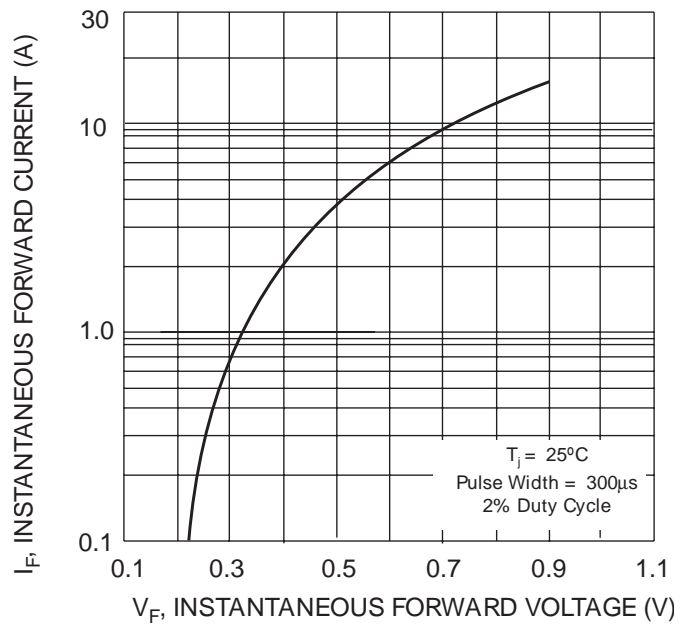


Fig. 2 Typical Forward Voltage Characteristics

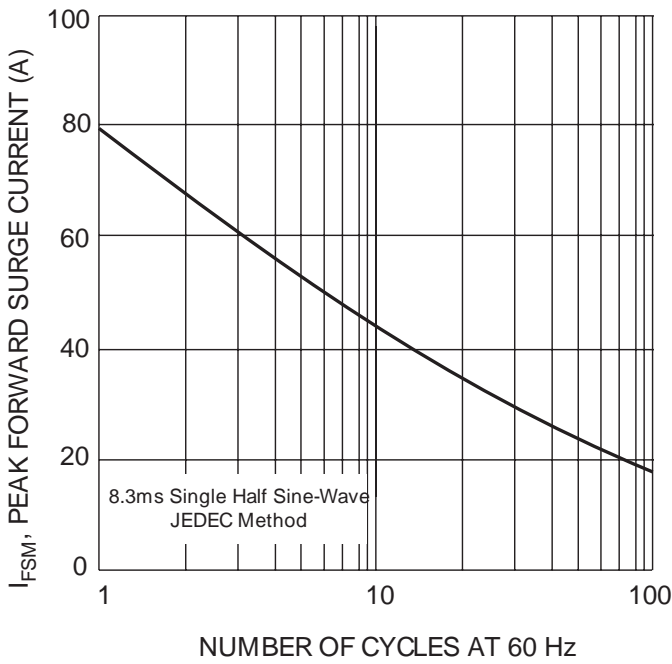


Fig. 3 Peak Forward Surge Current

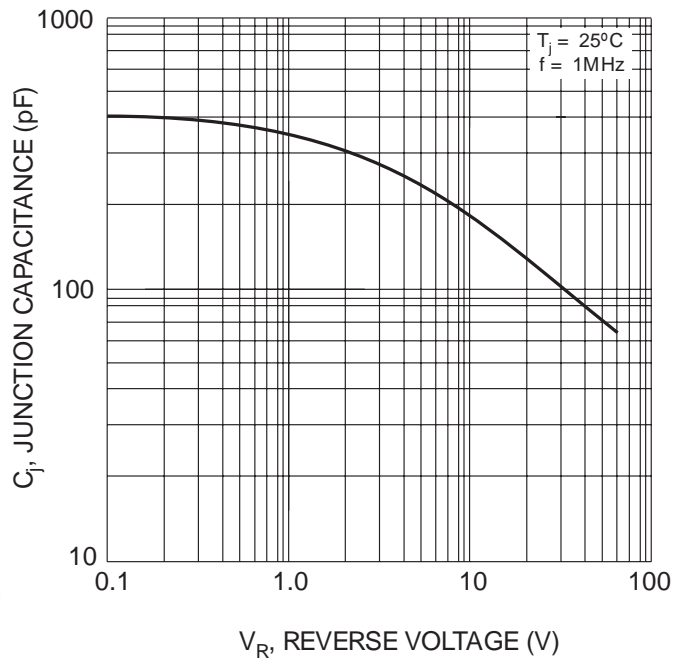


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
1N5820-T3	DO-201AD	1200/Tape & Reel
<b>1N5820-TB</b>	DO-201AD	1200/Tape & Box
1N5820	DO-201AD	500 Units/Box
1N5821-T3	DO-201AD	1200/Tape & Reel
<b>1N5821-TB</b>	DO-201AD	1200/Tape & Box
1N5821	DO-201AD	500 Units/Box
1N5822-T3	DO-201AD	1200/Tape & Reel
<b>1N5822-TB</b>	DO-201AD	1200/Tape & Box
1N5822	DO-201AD	500 Units/Box

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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