

1N5820 - 1N5822

3.0A SCHOTTKY BARRIER RECTIFIERS

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- Lead Free Finish, RoHS Compliant (Note 4)

Mechanical Data

- Case: DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Ordering Information: See Last Page
- Weight: 1.1 grams (approximate)



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

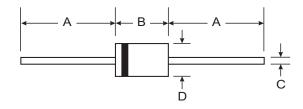
Characteristic	Symbol	1N5820	1N5821	1N5822	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	30	40	v
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current (Note 1) (Note 1) ($T_L = 95^{\circ}C$	lo	3.0			А
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) @ $T_L = 75^{\circ}C$	I _{FSM}	80			А
Forward Voltage (Note 2)		0.475 0.850	0.500 0.900	0.525 0.950	V
Peak Reverse Current@ $T_A = 25^{\circ}C$ at Rated DC Blocking Voltage (Note 2)@ $T_A = 100^{\circ}C$		2.0 20		mA	
Turical Thermal Desistance (Note 2)		40		_∘c/w	
Typical Thermal Resistance (Note 3)	R _{0JL}	10			0/11
Operating and Storage Temperature Range	T _{j,} T _{STG}	-65 to +125			°C

Notes: 1. Measured at ambient temperature at a distance of 9.5mm from the case.

2. Short duration pulse test used to minimize self-heating effect.

3. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.500" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad.

4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



DO-201AD					
Dim	Min	Max			
Α	25.40	_			
В	7.20	9.50			
С	1.20	1.30			
D	4.80	5.30			
All Dimensions in mm					

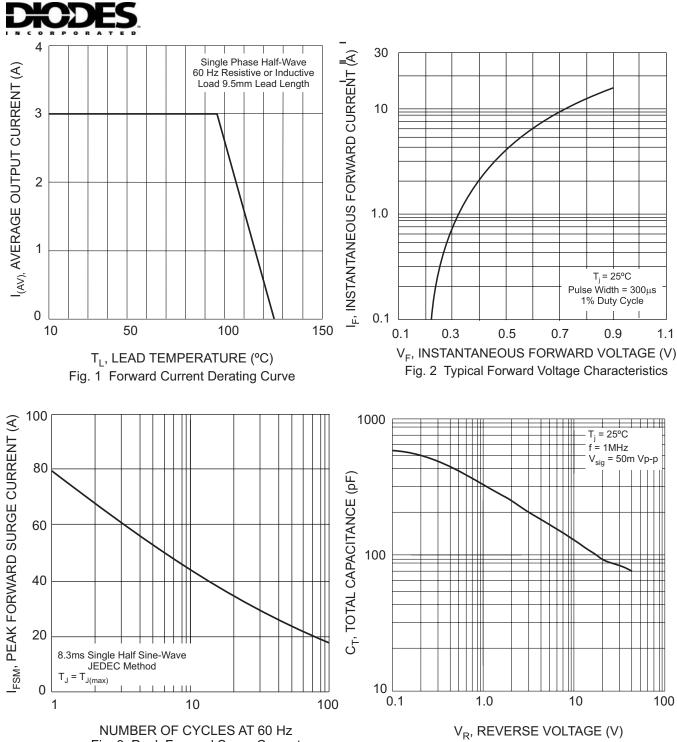


Fig. 3 Peak Forward Surge Current

Fig. 4 Typical Total Capacitance

Ordering Information (Note 5)

Device	Packaging	Shipping
1N5820-B	DO-201AD	500 Bulk
1N5820-T	DO-201AD	1.2K/Tape & Reel, 13-inch
1N5821-B	DO-201AD	500 Bulk
1N5821-T	DO-201AD	1.2K/Tape & Reel, 13-inch
1N5822-B	DO-201AD	500 Bulk
1N5822-T	DO-201AD	1.2K/Tape & Reel, 13-inch

Notes: 5. For packaging details, visit our website at http://www.diodes.com/datasheets/ap2008.pdf