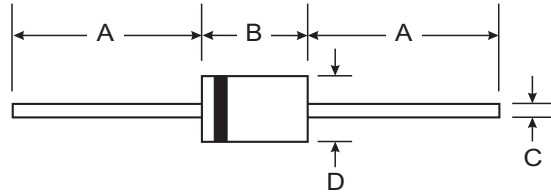


Features

- 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)

DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°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 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) @ T _L = 95°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°C	I _{FSM}	80			A
Forward Voltage (Note 2) @ I _F = 3.0A @ I _F = 9.4A	V _{FM}	0.475 0.850	0.500 0.900	0.525 0.950	V
Peak Reverse Current at Rated DC Blocking Voltage (Note 2) @ T _A = 25°C @ T _A = 100°C	I _{RM}	2.0 20			mA
Typical Thermal Resistance (Note 3)	R _{θJA}	40			°C/W
	R _{θJL}	10			
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*.

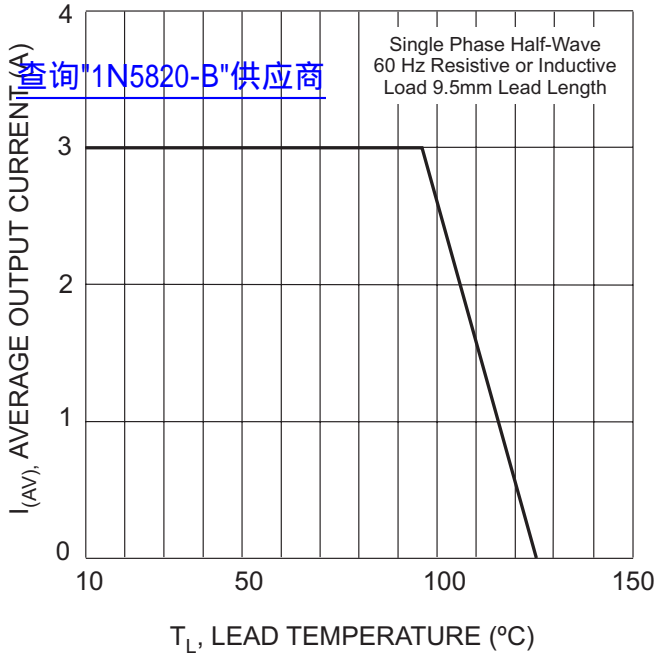


Fig. 1 Forward Current Derating Curve

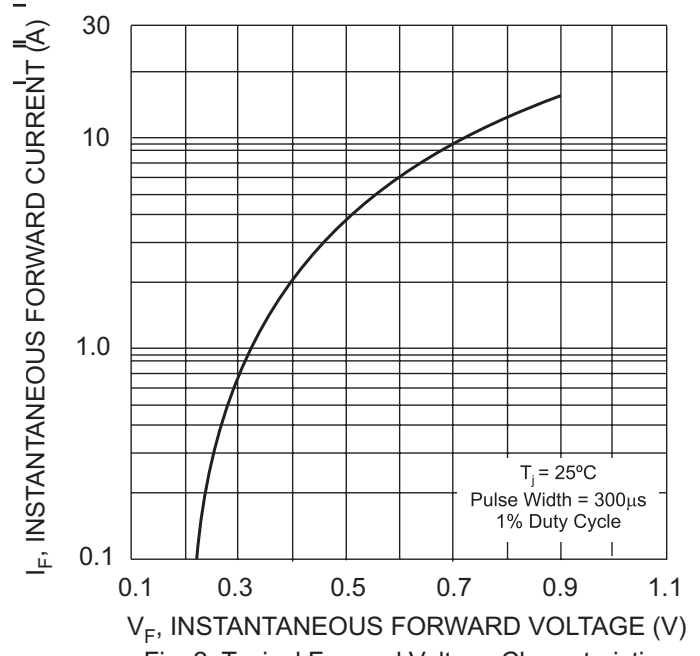


Fig. 2 Typical Forward Voltage Characteristics

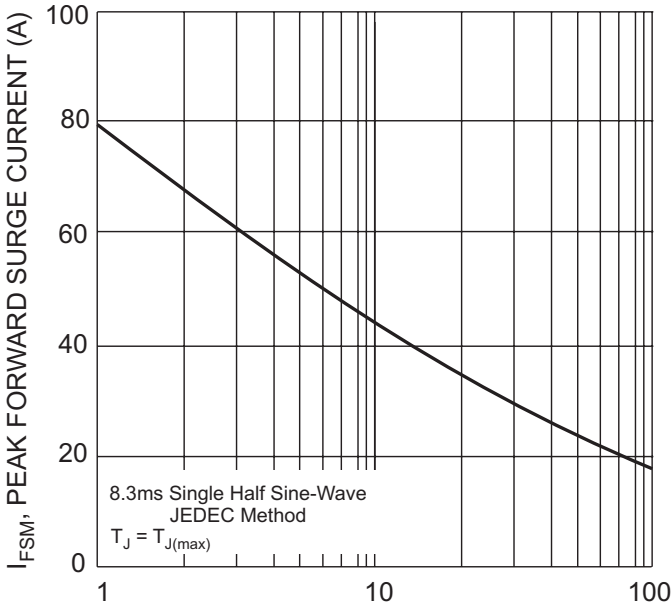


Fig. 3 Peak Forward Surge Current

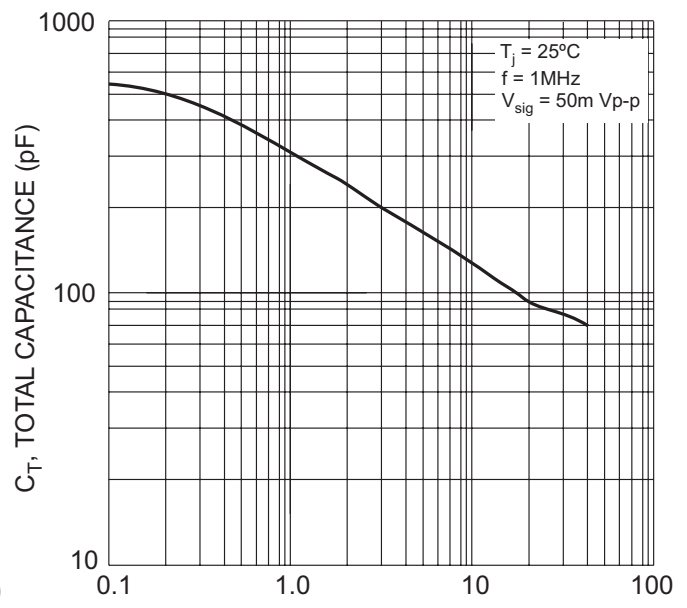


Fig. 4 Typical Total Capacitance

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>