



1N5400 - 1N5408

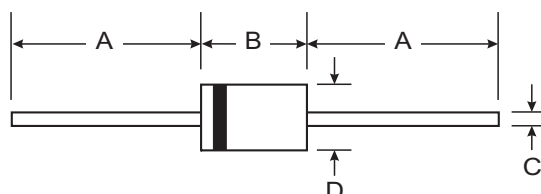
3.0A RECTIFIER

Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 200A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 3)**

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 — Tin. Plated Leads Solderable per MIL-STD-202, Method 208 **(e3)**
- Polarity: Cathode Band
- Marking: Type Number
- 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 @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 105^{\circ}\text{C}$ (Note 1)	I_O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	200							A
Forward Voltage @ $I_F = 3.0\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A = 150^{\circ}\text{C}$	I_{RM}	10 100							μA
Typical Total Capacitance (Note 2)	C_T	50				25			pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	15							$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^{\circ}\text{C}$

- Notes:
1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.

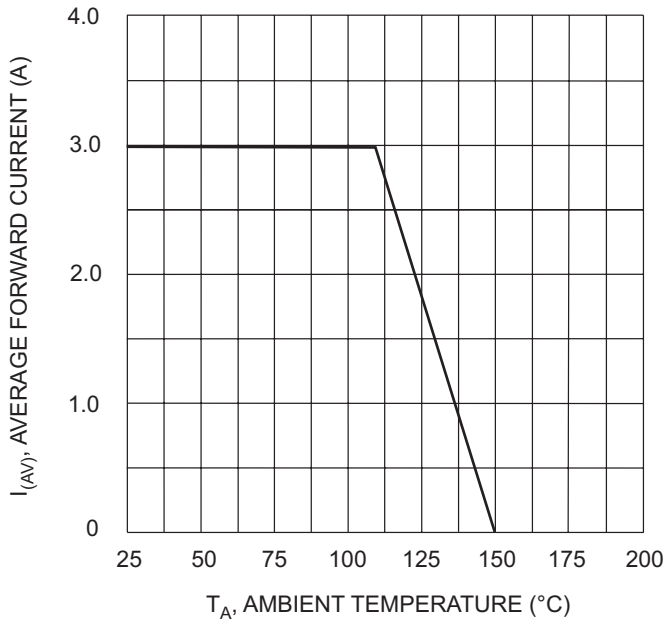


Fig. 1 Forward Current Derating Curve

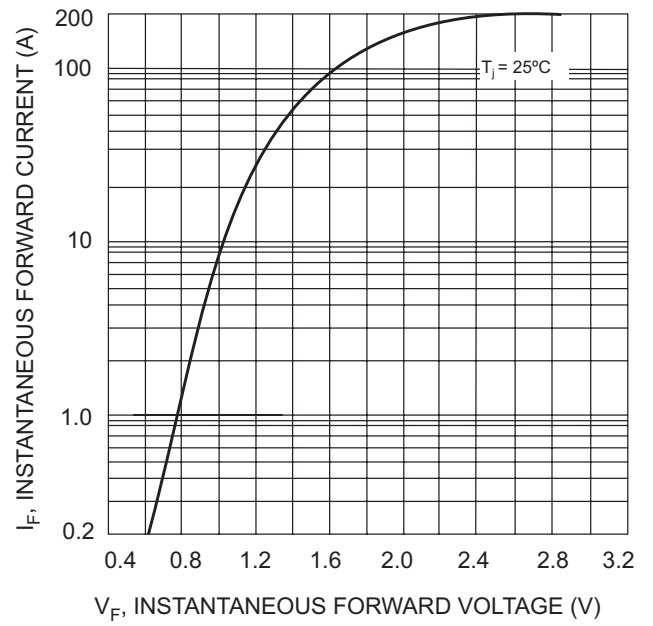


Fig. 2 Typical Forward Characteristics

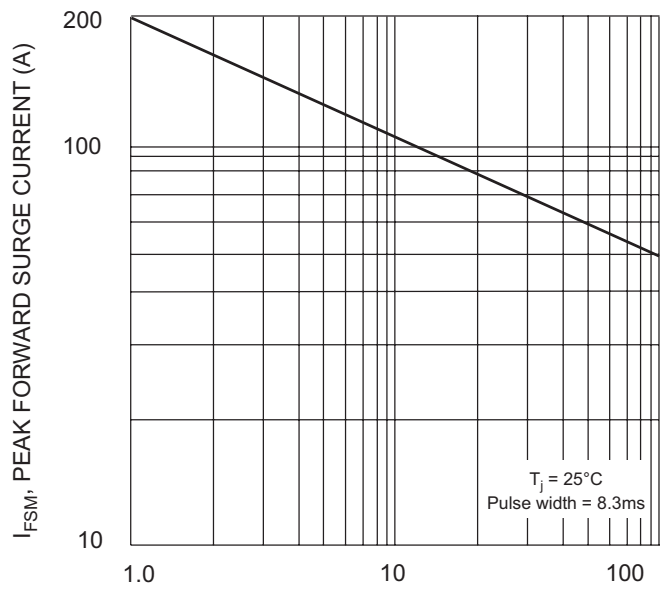


Fig. 3 Maximum Non-Repetitive Surge Current

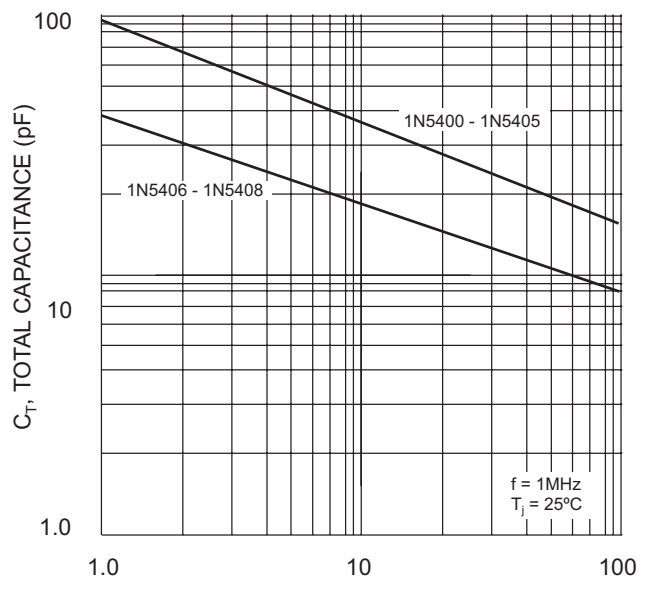


Fig. 4 Typical Total Capacitance

Ordering Information (Note 4)

Device	Packaging	Shipping
1N5400-B	DO-201AD	500 Bulk
1N5400-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5401-B	DO-201AD	500 Bulk
1N5401-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5402-B	DO-201AD	500 Bulk
1N5402-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5404-B	DO-201AD	500 Bulk
1N5404-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5406-B	DO-201AD	500 Bulk
1N5406-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5407-B	DO-201AD	500 Bulk
1N5407-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5408-B	DO-201AD	500 Bulk
1N5408-T	DO-201AD	1.2K/Tape & Reel, 13 inch

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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