## NOT RECOMMENDED FOR NEW DESIGN USE S3A-S3M Series

## 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

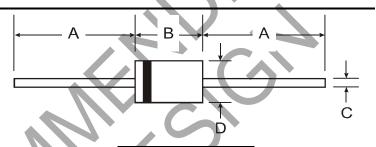
 Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

• Moisture Sensitivity: Level 1 per J-STD-020C

 Terminals: Finish — Tin. Plated Leads Solderable per MIL-STD-202, Method 208 (3)

Polarity: Cathode BandMarking: Type Number

Weight: 1.1 grams (approximate)



SMB					
Dim	Min	Max			
Α	25.4	-			
В	7.20	9.50			
С	1.20	1.30			
D	4.80	5.30			
All Dimensions in mm					

### Maximum Ratings and Electrical Characteristics @TA =

@T<sub>A</sub> = 25°C unless otherwise specified

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

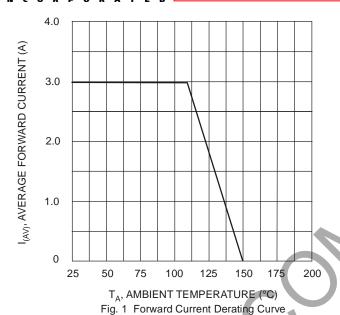
Characteristic		Symbol	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage		V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current	@ T <sub>A</sub> = 105°C (Note 1)	lo	3.0				Α			
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rat	ed load	I <sub>FSM</sub>				200				А
Forward Voltage	@ $I_F = 3.0A$	$V_{FM}$				1.0				V
Peak Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 150°C	I <sub>RM</sub>	10 100			μА				
Typical Total Capacitance	(Note 2)	Ст	50 25		pF					
Typical Thermal Resistance Junction to Ambient		$R_{\theta JA}$				15				°C/W
Operating and Storage Temperature Range		T <sub>j</sub> , T <sub>STG</sub>			-6	65 to +15	50			°C

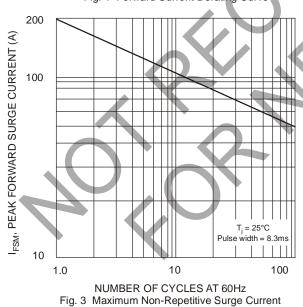
Notes:

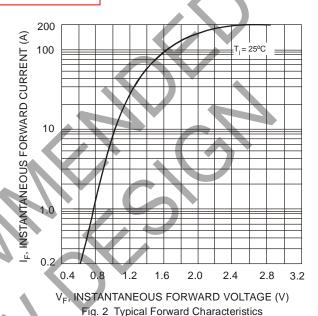
- 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.



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 $V_R$ , REVERSE VOLTAGE (V)

Fig. 4 Typical Total Capacitance



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### 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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