## 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

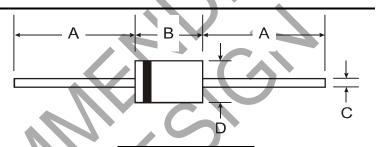
 Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

• 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%.

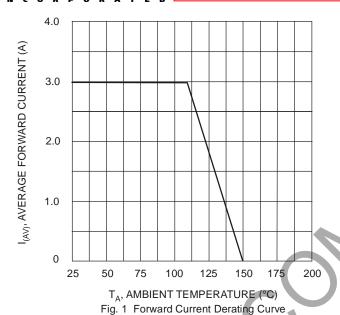
| Characteristic  |   | Symbol   | 1N<br>5400 | 1N<br>5401 | 1N<br>5402 | 1N<br>5404 | 1N<br>5406 | 1N<br>5407 | 1N<br>5408 | Unit |
|---|---|--|------------|------------|------------|------------|------------|------------|------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage    |   | V <sub>RRM</sub><br>V <sub>RWM</sub><br>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<br>(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<br>@ T <sub>A</sub> = 150°C | I <sub>RM</sub>  | 10<br>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   |

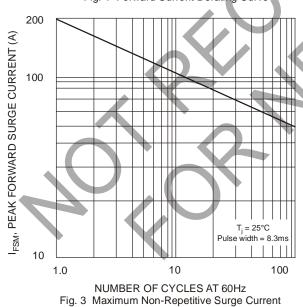
Notes:

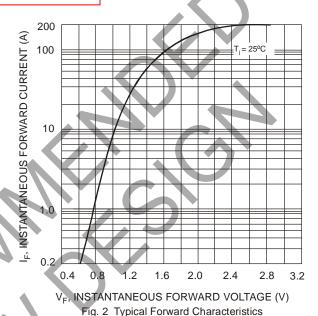
- 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.



# NOT RECOMMENDED FOR NEW DESIGN USE S3A-S3M Series







 $V_R$ , REVERSE VOLTAGE (V)

Fig. 4 Typical Total Capacitance



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

### 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.

#### IMPORTANT NOTICE

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

#### LIFE SUPPORT

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.

1N5400-1N5408 3 of 3
Document number: DS28007 Rev. 8 - 3 www.diodes.com

### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Diodes Incorporated manufacturer:

Other Similar products are found below:

MMSZ5232BQ-13-F ZXSC100N8TA AP1086K50L-13 MBRB1530CT-T AP1507-D5L-13 DMS3015SSS-13 ZXBM2004Q16TC 1N5400-T ZXMP2120G4TA PI7C9X111SLBFDEX AP431AVL-A AP1117IDG-13 DGD2104AS8-13 DGD2103AS8-13 DGD2103S8-13 ZXBM2004JA16TC ZXCL5213V30H5TA DMN63D1LDW-7 AL1677-20BS-13 PI74AVC164245AAEX DMP3065LVT-7 DMP2160UW-7 PD3Z284C27-7 PI6CV304WE PAM2863EV1 SB560-T PAM2804EV1 PAM2841EV1 AL5811EV1 AL9901EV2 AL9910AEV2 AP8802EV1 AL1794EV1 BZX84C5V1TS-7-F 1N5402-T ZMR330FTA PI7C9X20505GPBNDE DMC2053UVT-7 AP63205WU-EVM B520C-13-F KBJ608G 1N5404-B DFLT48A-7 AL5811EV2 AL5812EV3 AL8807EV2 AL9901EV1 AL8807EV4 AL8807EV3 AL5890-10P1-13