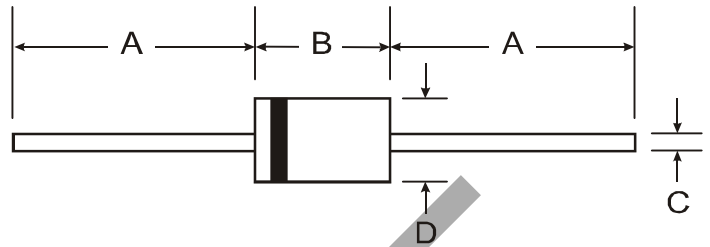


**Features**

- 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 (63)
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 1.1 grams (approximate)

| SMB                  |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | -    |
| 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<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                                                                  | V <sub>RRM</sub>                  |             |         |         |         |         |         |         |      |
| Working Peak Reverse Voltage                                                                     | V <sub>RWM</sub>                  | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V    |
| DC Blocking Voltage                                                                              | V <sub>R</sub>                    |             |         |         |         |         |         |         |      |
| 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)                               | I <sub>O</sub>                    | 3.0         |         |         |         |         |         |         | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load | I <sub>FSM</sub>                  | 200         |         |         |         |         |         |         | A    |
| Forward Voltage @ I <sub>F</sub> = 3.0A                                                          | V <sub>FM</sub>                   | 1.0         |         |         |         |         |         |         | V    |
| Peak Reverse Current @ T <sub>A</sub> = 25°C                                                     | I <sub>RM</sub>                   | 10          |         |         |         |         |         |         | μA   |
| at Rated DC Blocking Voltage @ T <sub>A</sub> = 150°C                                            |                                   | 100         |         |         |         |         |         |         |      |
| Typical Total Capacitance (Note 2)                                                               | C <sub>T</sub>                    | 50          |         |         |         | 25      |         |         | pF   |
| Typical Thermal Resistance Junction to Ambient                                                   | R <sub>θJA</sub>                  | 15          |         |         |         |         |         |         | °C/W |
| Operating and Storage Temperature Range                                                          | T <sub>i</sub> , T <sub>STG</sub> | -65 to +150 |         |         |         |         |         |         | °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*.

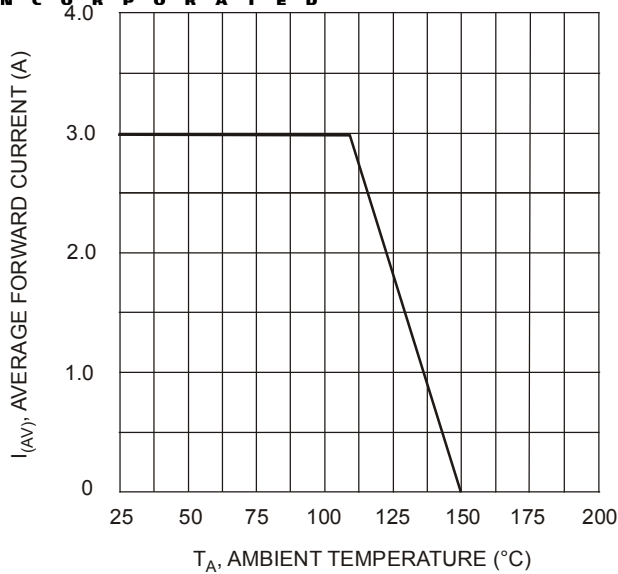


Fig. 1 Forward Current Derating Curve

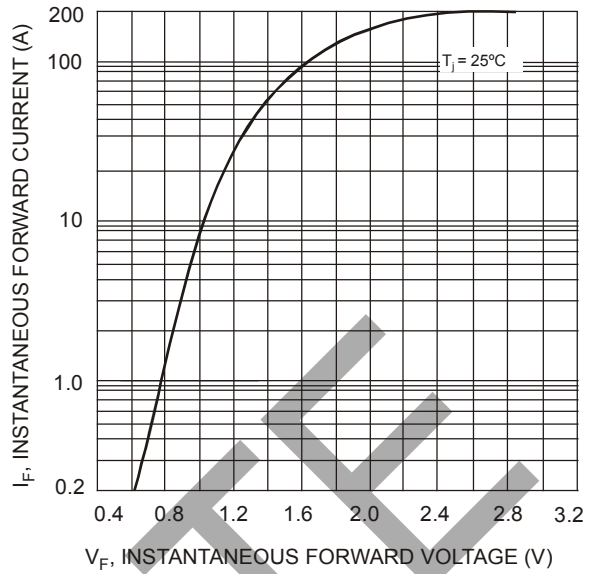


Fig. 2 Typical Forward Characteristics

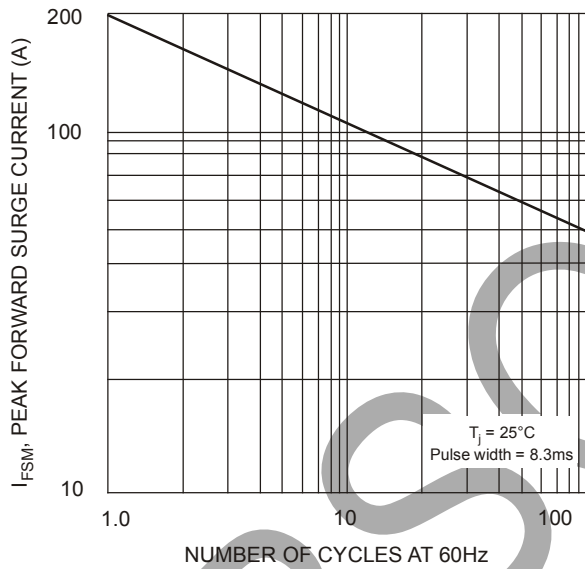


Fig. 3 Maximum Non-Repetitive Surge Current

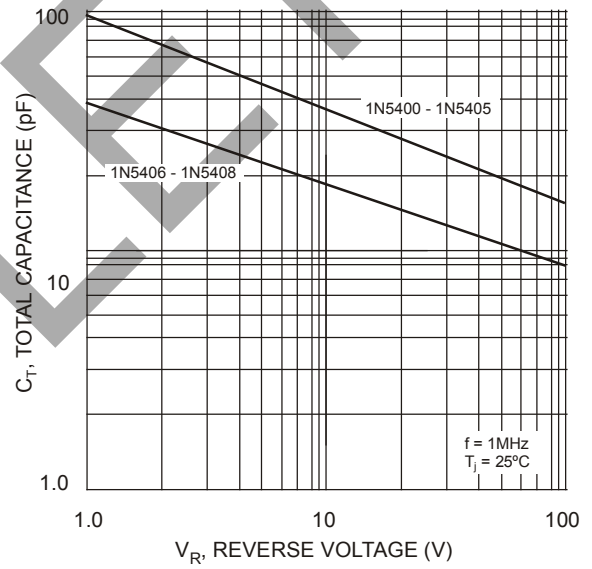


Fig. 4 Typical Total Capacitance

**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>.

OBSOLETE

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