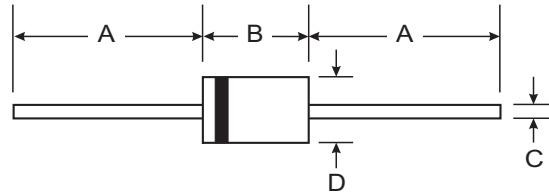


### Features

- 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<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              | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 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 @ $T_A = 105^{\circ}C$<br>(Note 1)                                 | $I_O$                           | 3.0         |            |            |            |            |            |            | A             |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load | $I_{FSM}$                       | 200         |            |            |            |            |            |            | A             |
| Forward Voltage @ $I_F = 3.0A$                                                                      | $V_{FM}$                        | 1.0         |            |            |            |            |            |            | V             |
| Peak Reverse Current @ $T_A = 25^{\circ}C$<br>at Rated DC Blocking Voltage @ $T_A = 150^{\circ}C$   | $I_{RM}$                        | 10<br>100   |            |            |            |            |            |            | $\mu A$       |
| Typical Total Capacitance (Note 2)                                                                  | $C_T$                           | 50          |            |            |            |            | 25         |            | pF            |
| Typical Thermal Resistance Junction to Ambient                                                      | $R_{\theta JA}$                 | 15          |            |            |            |            |            |            | $^{\circ}C/W$ |
| Operating and Storage Temperature Range                                                             | $T_J, T_{STG}$                  | -65 to +150 |            |            |            |            |            |            | $^{\circ}C$   |

- 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*.

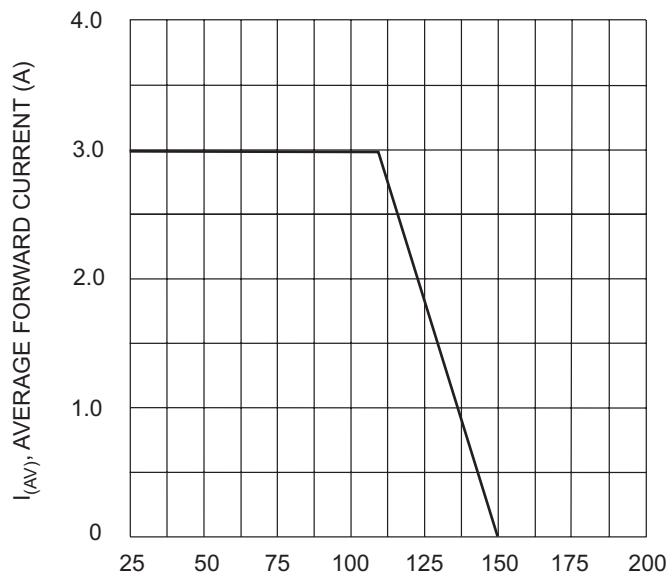


Fig. 1 Forward Current Derating Curve

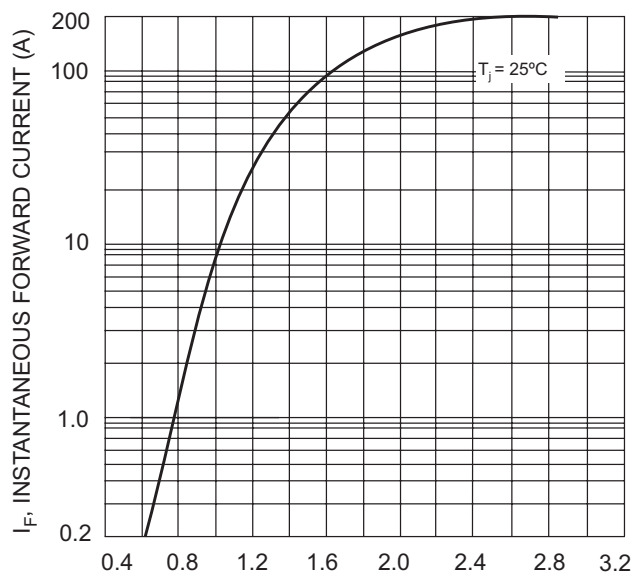


Fig. 2 Typical Forward Characteristics

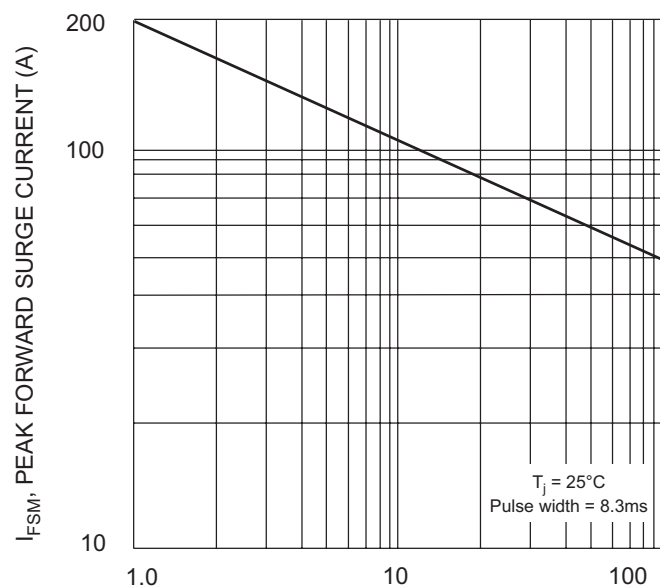


Fig. 3 Maximum Non-Repetitive Surge Current

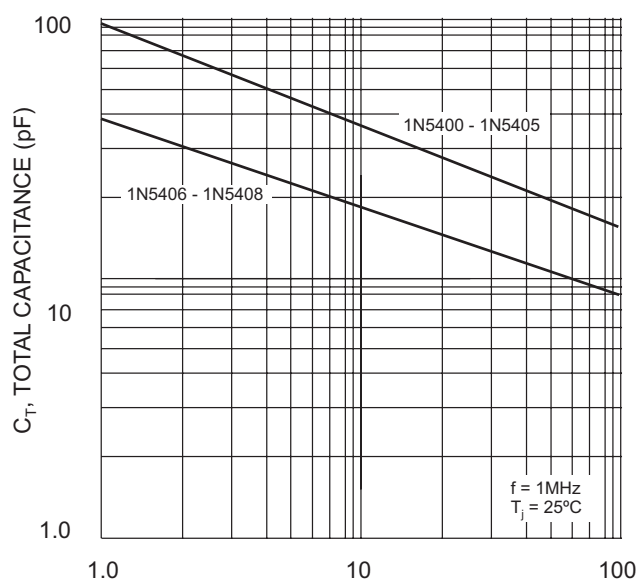


Fig. 4 Typical Total Capacitance

**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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