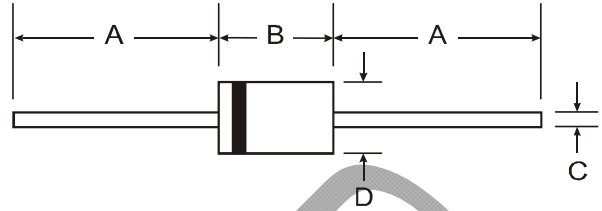


## Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 70A Peak
- Lead Free Finish, RoHS Compliant (Note 3)

## Mechanical Data

- Case: DO-15
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish – Bright Tin. Solderable per MIL-STD-202, Method 208 (e3)
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.4 grams (approximate)



| DO-15                |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 25.40 | —     |
| B                    | 5.50  | 7.62  |
| C                    | 0.686 | 0.889 |
| D                    | 2.60  | 3.6   |
| 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                            | 2A01        | 2A02 | 2A03 | 2A04 | 2A05 | 2A06 | 2A07 | Unit             |
|-----------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|------|------|------|------|------|------------------|
| Peak Repetitive Reverse Voltage                                                                     | V <sub>RRM</sub>                  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V                |
| Working Peak Reverse Voltage                                                                        | V <sub>RWM</sub>                  |             |      |      |      |      |      |      |                  |
| 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<br>(Note 1) @ T <sub>A</sub> = 55°C                                | I <sub>O</sub>                    | 2.0         |      |      |      |      |      |      | A                |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on rated load | I <sub>FSM</sub>                  | 70          |      |      |      |      |      |      | A                |
| Forward Voltage @ I <sub>F</sub> = 2.0A                                                             | V <sub>FM</sub>                   | 1.1         |      |      |      |      |      |      | V                |
| Peak Reverse Leakage Current @T <sub>A</sub> = 25°C                                                 | I <sub>RM</sub>                   | 5.0         |      |      |      |      |      |      | μA               |
| at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C                                               |                                   | 50          |      |      |      |      |      |      |                  |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms)                                                      | I <sup>2</sup> t                  | 17.5        |      |      |      |      |      |      | A <sup>2</sup> s |
| Typical Total Capacitance (Note 2)                                                                  | C <sub>T</sub>                    | 15          |      |      |      |      |      |      | pF               |
| Typical Thermal Resistance Junction to Ambient (Note 1)                                             | R <sub>θJA</sub>                  | 60          |      |      |      |      |      |      | °C/W             |
| Operating and Storage Temperature Range                                                             | T <sub>j</sub> , T <sub>STG</sub> | -65 to +150 |      |      |      |      |      |      | °C               |

- Notes:
1. Leads are maintained 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. High temperature solder exemption applied, see *EU Directive Annex Notes 5 and 7*.

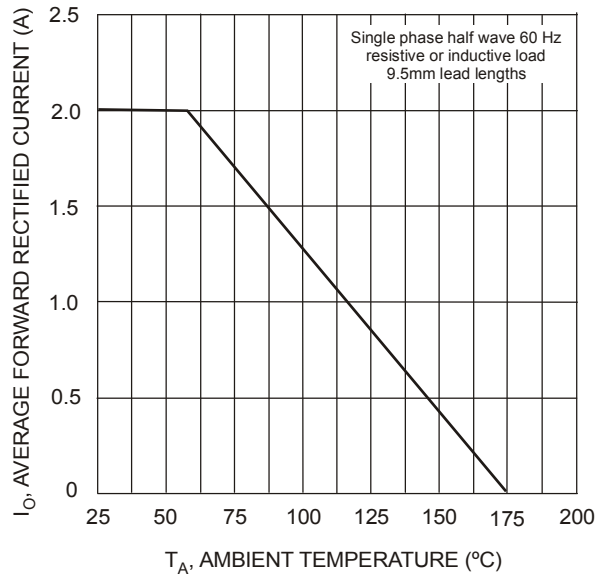


Fig. 1 Forward Current Derating Curve

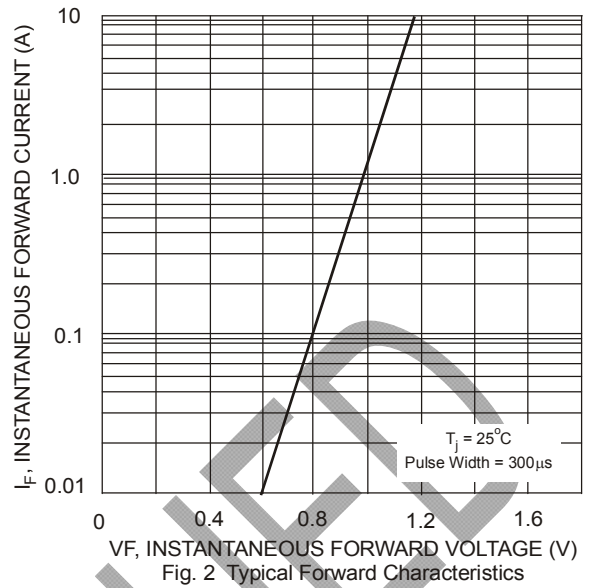


Fig. 2 Typical Forward Characteristics

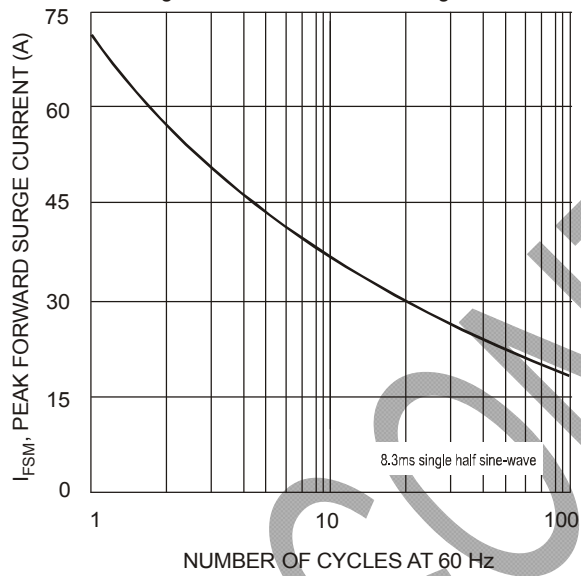


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

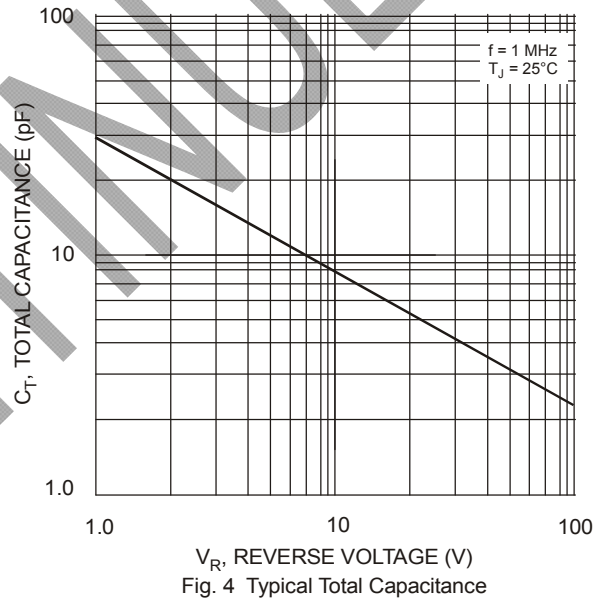


Fig. 4 Typical Total Capacitance

**Ordering Information** (Note 4)

| Device | Packaging | Shipping                |
|--------|-----------|-------------------------|
| 2A01-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A02-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A03-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A04-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A05-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A06-T | DO-15     | 4K/Tape & Reel, 13-inch |
| 2A07-T | DO-15     | 4K/Tape & Reel, 13-inch |

Notes: 4. For packaging details, visit 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.