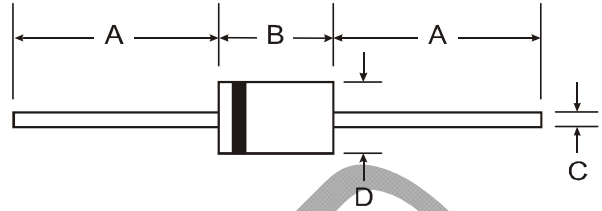


Features

- 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)



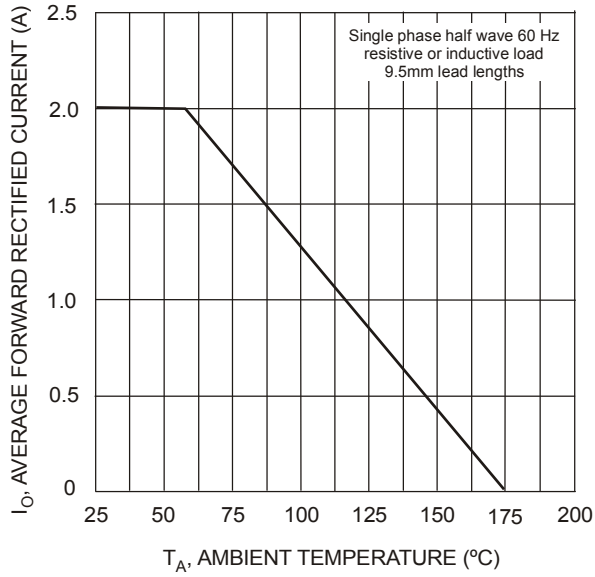
| DO-15 | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | 5.50 | 7.62 |
| C | 0.686 | 0.889 |
| D | 2.60 | 3.6 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

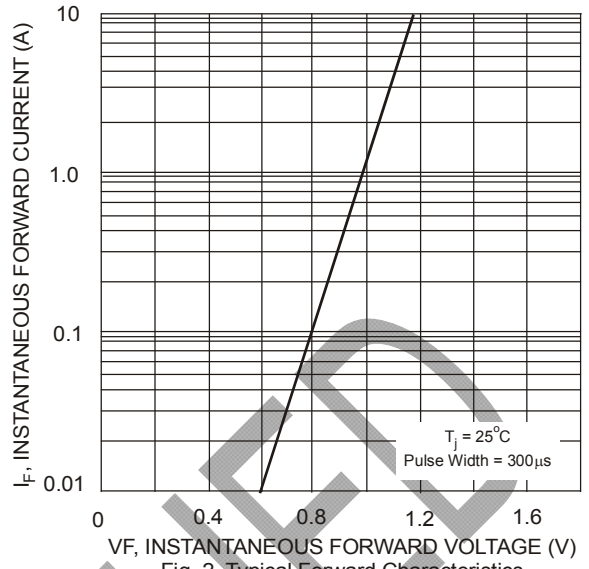
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | 2A01 | 2A02 | 2A03 | 2A04 | 2A05 | 2A06 | 2A07 | Unit |
|--|-----------------------------------|-------------|------|------|------|------|------|------|------------------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | | V |
| Working Peak Reverse Voltage | V _{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V _R | | | | | | | | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note 1) | I _O | 2.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 70 | | | | | | | A |
| Forward Voltage @ I _F = 2.0A | V _{FM} | 1.1 | | | | | | | V |
| Peak Reverse Leakage Current @ T _A = 25°C | I _{RM} | 5.0 | | | | | | | μA |
| at Rated DC Blocking Voltage @ T _A = 100°C | | 50 | | | | | | | |
| I ² t Rating for Fusing (t < 8.3ms) | I ² t | 17.5 | | | | | | | A ² s |
| Typical Total Capacitance (Note 2) | C _T | 15 | | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient (Note 1) | R _{θJA} | 60 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | °C |

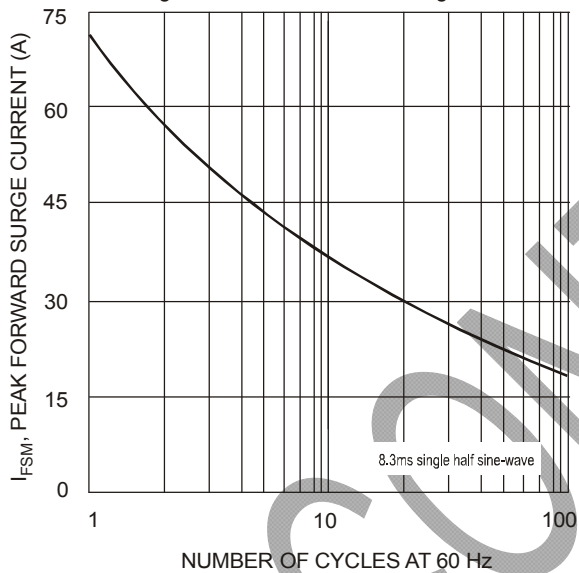
- Notes:
1. Leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. RoHS revision 13.2.2003. High temperature solder exemption applied, see *EU Directive Annex Notes 5 and 7*.



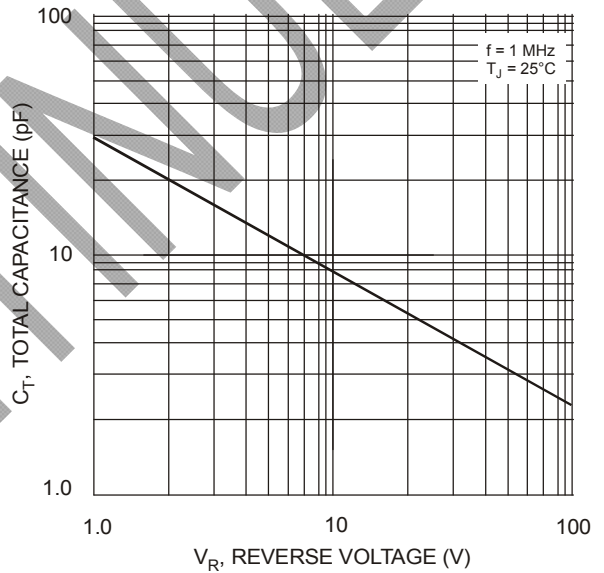
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



V_R , REVERSE VOLTAGE (V)
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>.

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