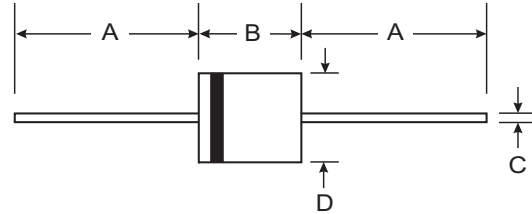


Features

- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 600A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

- Case: R-6
- 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
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: 2.1 grams (approximate)



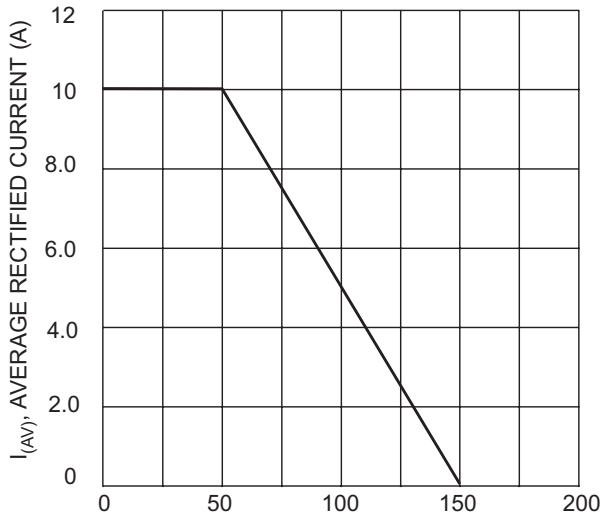
| R-6 | | |
|----------------------|-------|------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | 8.60 | 9.10 |
| C | 1.20 | 1.30 |
| D | 8.60 | 9.10 |
| All Dimensions in mm | | |

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

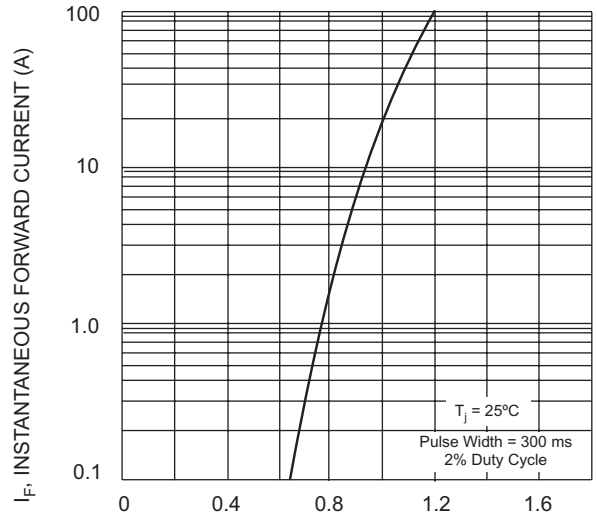
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | 10A01 | 10A02 | 10A03 | 10A04 | 10A05 | 10A06 | 10A07 | Unit |
|--|-----------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note 1) | I _O | 10 | | | | | | | A |
| | | @ T _A = 50°C | | | | | | | |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 600 | | | | | | | A |
| Forward Voltage | V _{FM} | 1.0 | | | | | | | V |
| | | @ I _F = 10A | | | | | | | |
| 10Peak Reverse Current | I _{RM} | 10 | | | | | | | μA |
| | | @ T _A = 25°C | | | | | | | |
| | | @ T _A = 100°C | | | | | | | |
| Typical Total Capacitance (Note 2) | C _T | 150 | | | | 80 | | | pF |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 10 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | | °C |

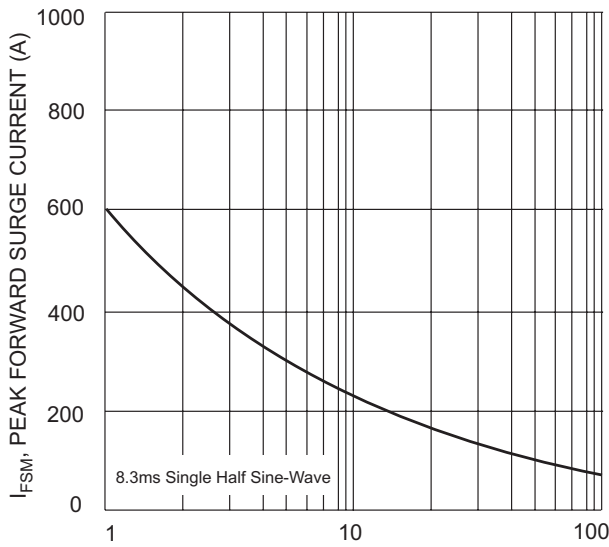
- Notes:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.



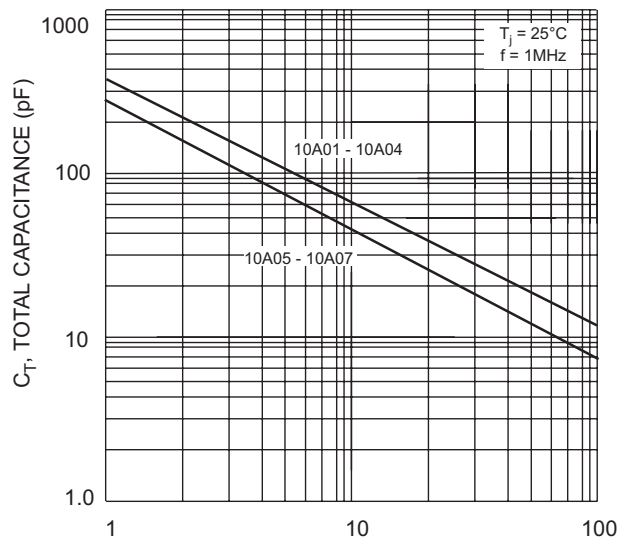
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



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



I_{FSM}, PEAK FORWARD SURGE CURRENT (A)
NUMBER OF CYCLES AT 60 Hz
Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current



C_T, TOTAL CAPACITANCE (pF)
V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Total Capacitance

Ordering Information (Note 4)

| Device | Packaging | Shipping |
|---------|-----------|--------------------------|
| 10A01-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A02-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A03-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A04-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A05-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A06-T | R-6 | 500/Tape & Reel, 13-inch |
| 10A07-T | R-6 | 500/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.



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.