



D1G - D7G

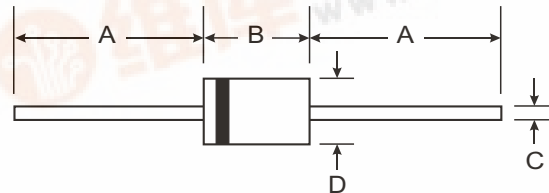
1.0A GLASS PASSIVATED RECTIFIER

Features

Glass Passivated Die Construction
 High Current Capability and Low Forward Voltage Drop
 Surge Overload Rating to 30A Peak
Lead Free Finish, RoHS Compliant (Note 4)

Mechanical Data

Case: T1
 Case Material: Molded Plastic. UL Flammability
 Classification Rating 94V-0
 Moisture Sensitivity: Level 1 per J-STD-020C
 Polarity: Cathode Band
 Terminals: Finish – Tin. Solderable per MIL-STD-202,
 Method 208 **(e3)**
 Marking: Type Number
 Weight: 0.13 grams (approximate)



| T-1 | | |
|----------------------|-------|------|
| Dim | Min | Max |
| A | 25.40 | |
| B | 2.60 | 3.20 |
| C | 0.53 | 0.64 |
| D | 2.20 | 2.60 |
| 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 | D1G | D2G | D3G | D4G | D5G | D6G | D7G | 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) @ T _A = 75 °C | I _O | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load | I _{FSM} | 30 | | | | | | | A |
| Forward Voltage @ I _F = 1.0A | V _{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @ T _A = 25 °C at Rated DC Blocking Voltage @ T _A = 100 °C | I _{RM} | 5.0 50 | | | | | | | A |
| Reverse Recovery Time (Note 3) | t _{rr} | 2.0 | | | | | | | s |
| Typical Total Capacitance (Note 2) | C _T | 8.0 | | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient | R _{JA} | 100 | | | | | | | C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | °C |

- Notes:
- Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 - Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 - Measured with I_F = 0.5A, I_R = 1A, t_{rr} = 0.25A.
 - RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

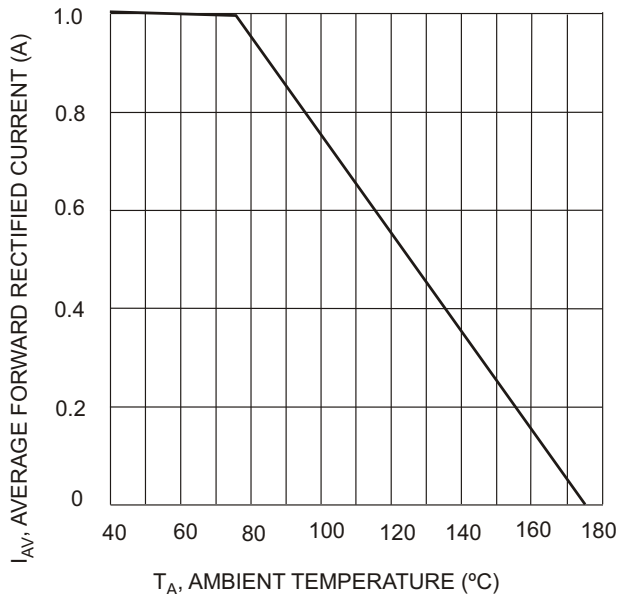


Fig. 1 Forward Current Derating Curve

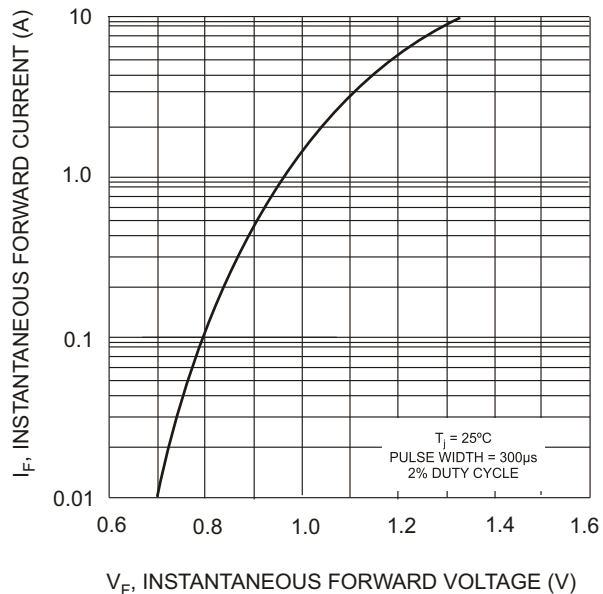


Fig. 2 Typical Forward Characteristics

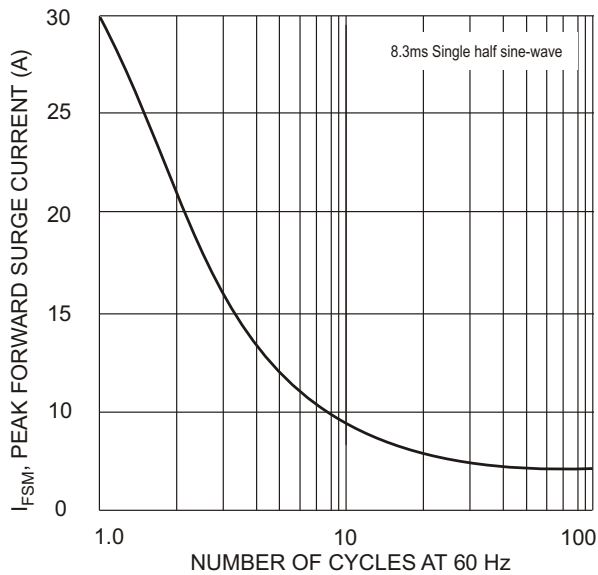


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

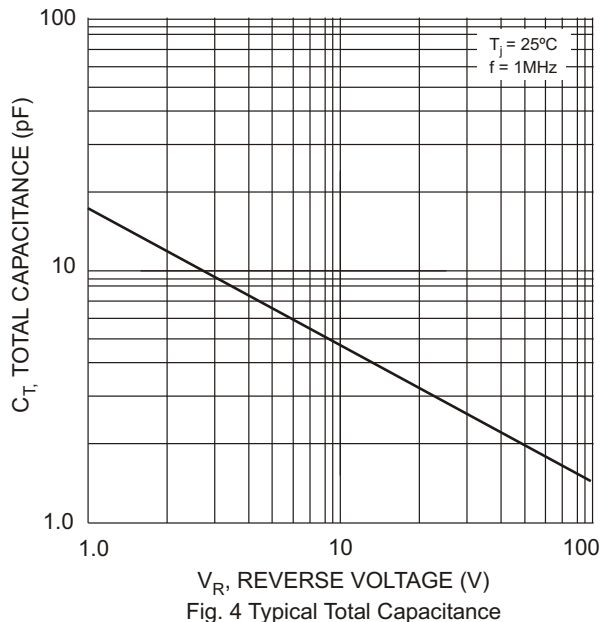


Fig. 4 Typical Total Capacitance

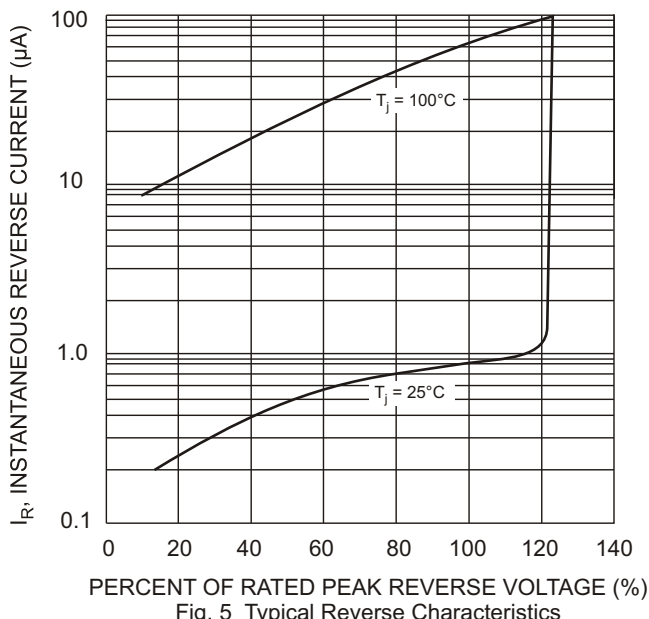


Fig. 5 Typical Reverse Characteristics



Ordering Information (Note 5)

| Device | Packaging | Shipping |
|--------|-----------|-------------------------|
| D1G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D2G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D3G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D4G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D5G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D6G-T | T-1 | 5K/Tape & Reel, 13-inch |
| D7G-T | T-1 | 5K/Tape & Reel, 13-inch |

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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