D1G - D7G

1.0A GLASS PASSIVATED RECTIFIER

Features and Benefits

- Glass Passivated Die Construction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- **Lead Free Finish, RoHS Compliant (Note 1)**

Mechanical Data

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

Ordering Information (Note 2)

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

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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} 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 (Note 3) @ 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							μA
Typical Reverse Recovery Time (Note 4)	t_{rr}	2.0							μs
Typical Total Capacitance (Note 5)	C_T	8.0							pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							°C

Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes
2. For packaging details, visit our website at http://www.diodes.com.
3. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
4. Measured with I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

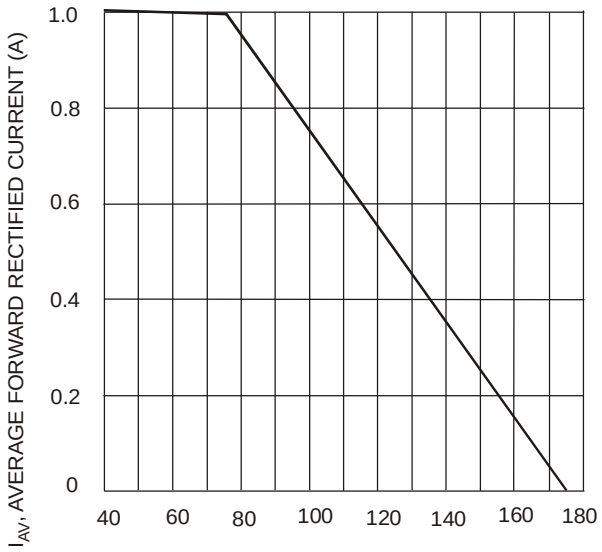


Fig. 1 Forward Current Derating Curve

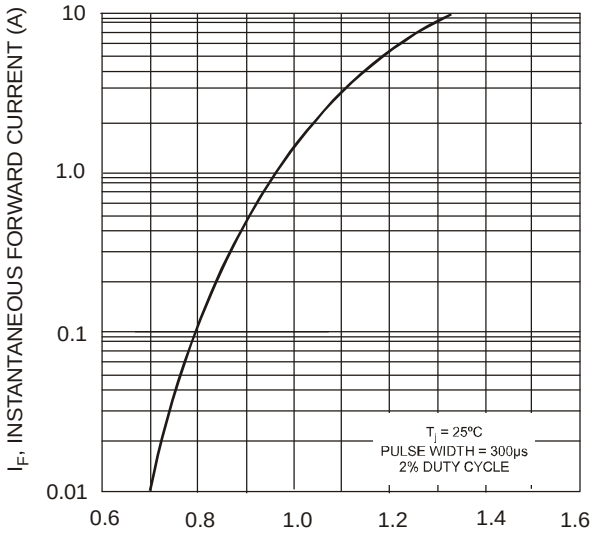


Fig. 2 Typical Forward Characteristics

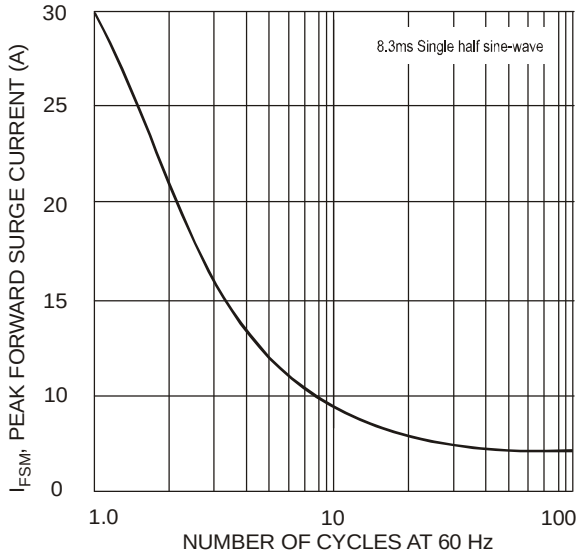


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

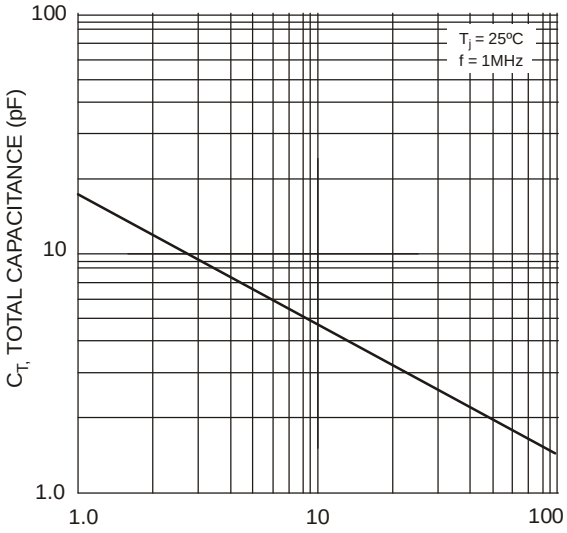


Fig. 4 Typical Total Capacitance

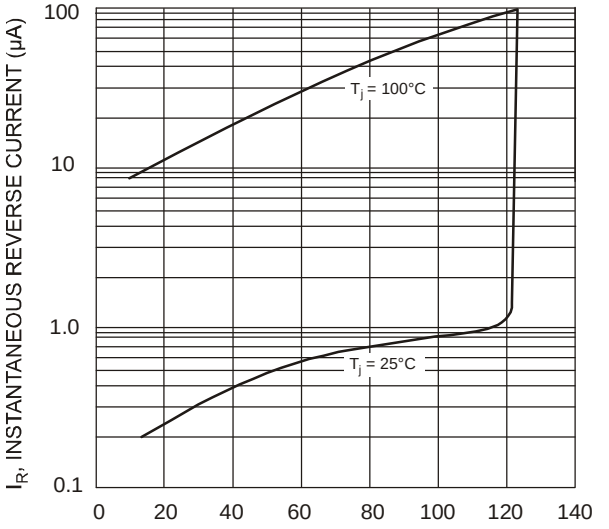
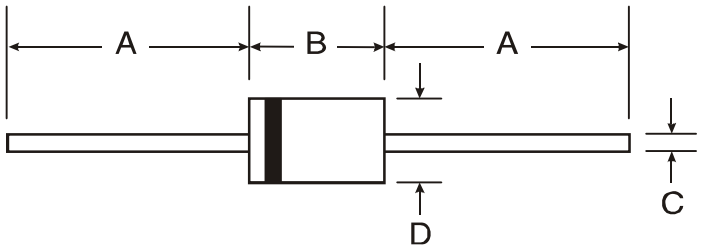


Fig. 5 Typical Reverse Characteristics

Package Outline Dimensions



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		