

### 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)

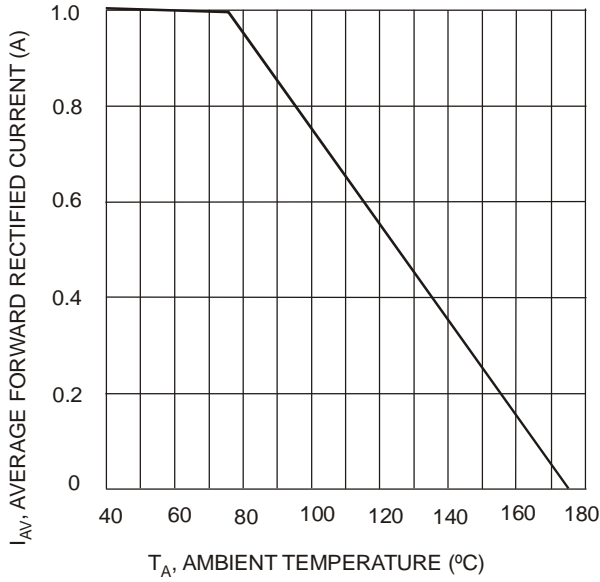
Device	Packaging	Shipping
D1G-T	T-1	5K/Tape & Reel, 13-inch
D2G-T	T-1	5K/Tape & Reel, 13-inch
D3G-T	T-1	5K/Tape & Reel, 13-inch
D4G-T	T-1	5K/Tape & Reel, 13-inch
D5G-T	T-1	5K/Tape & Reel, 13-inch
D6G-T	T-1	5K/Tape & Reel, 13-inch
D7G-T	T-1	5K/Tape & Reel, 13-inch

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

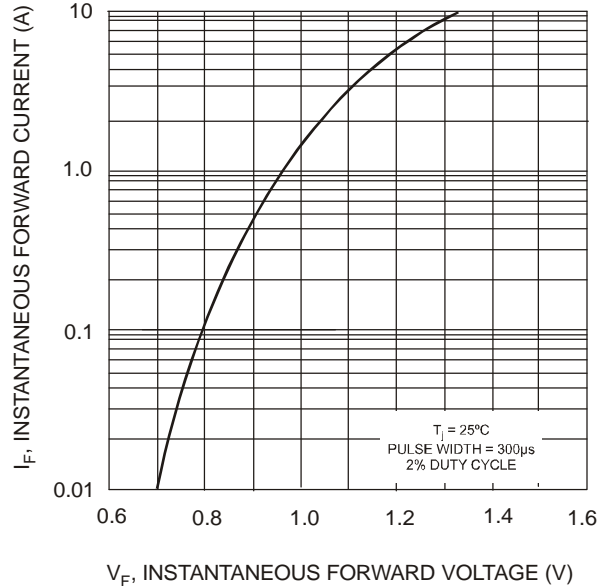
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	D1G	D2G	D3G	D4G	D5G	D6G	D7G	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
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 (Note 3)	I <sub>O</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Forward Voltage @ I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.0							V
Peak Reverse 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							
Typical Reverse Recovery Time (Note 4)	t <sub>rr</sub>	2.0							μs
Typical Total Capacitance (Note 5)	C <sub>T</sub>	8.0							pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	100							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150							°C

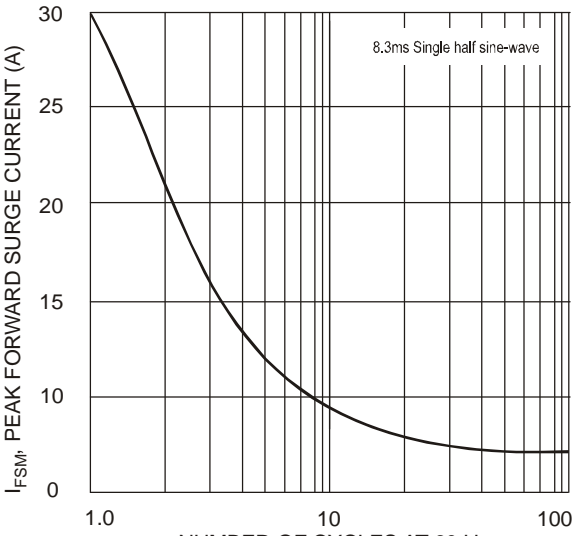
- Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes
  2. For packaging details, visit our website at <http://www.diodes.com>.
  3. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.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



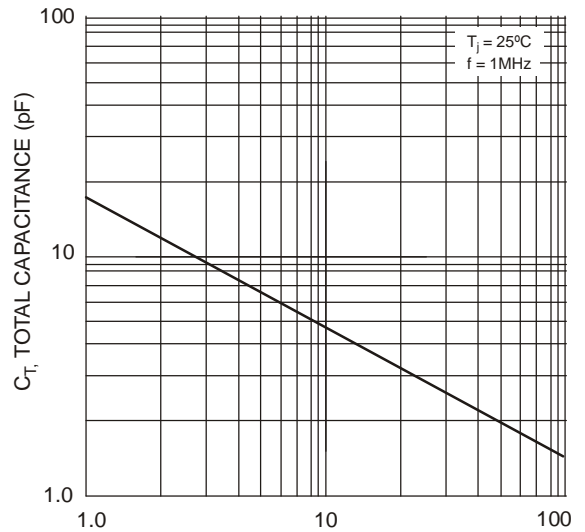
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



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



8.3ms Single half sine-wave  
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance

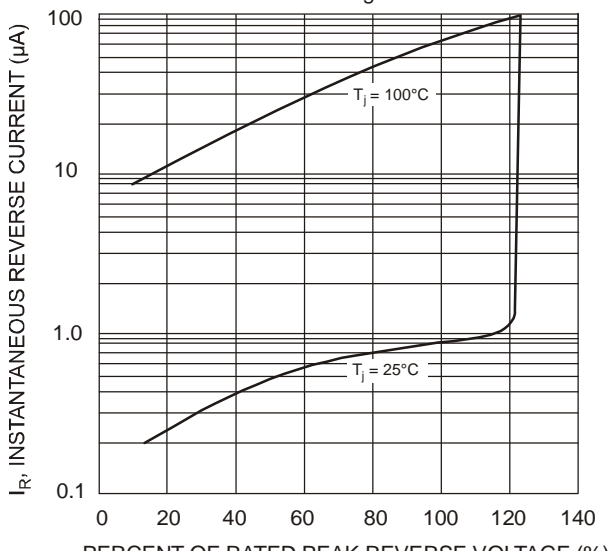
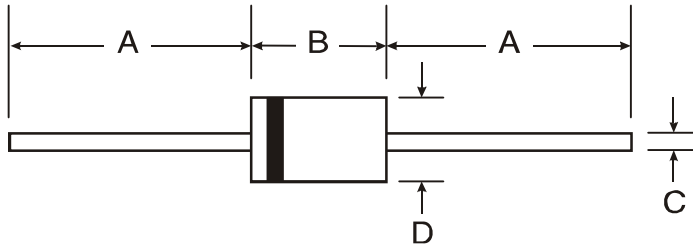


Fig. 5 Typical Reverse Characteristics

## 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		

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