

# **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 @3
- 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 @TA = 25°C unless otherwise specified

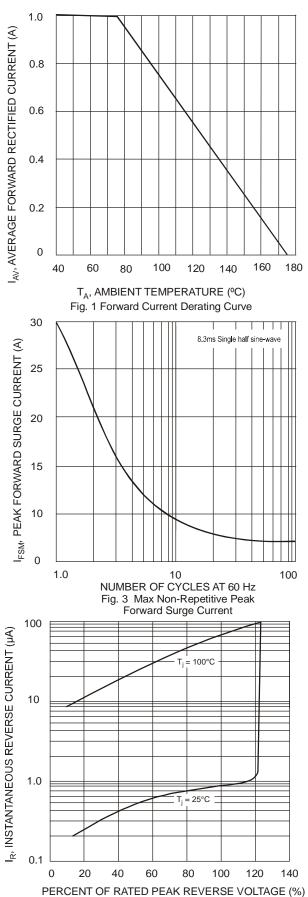
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

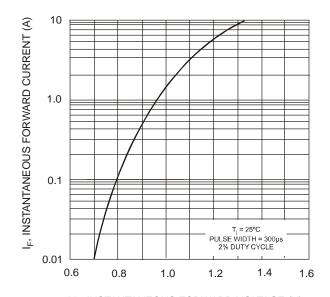
Characteristic		Symbol	D1G	D2G	D3G	D4G	D5G	D6G	D7G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 3)	@ T <sub>A</sub> = 75°C	lo				1.0				Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on ra	ted load	I <sub>FSM</sub>				30				А
Forward Voltage	@ I <sub>F</sub> = 1.0A	$V_{FM}$				1.0				V
Peak Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 50				μΑ			
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		$R_{\theta JA}$		•		100	•	•	•	°C/W
Operating and Storage Temperature Range		T <sub>J,</sub> T <sub>STG</sub>			-6	65 to +15	50			°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.







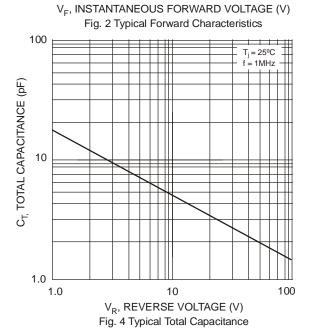
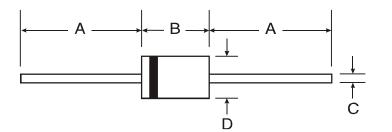


Fig. 5 Typical Reverse Characteristics



### **Package Outline Dimensions**



T-1					
Dim	Min	Max			
Α	25.40	_			
В	2.60	3.20			
С	0.53	0.64			
D	2.20	2.60			
All Dimensions in mm					

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