

### 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: DO-41 Plastic
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Tin. Plated Leads Solderable per MIL-STD-202, Method 208 63
- Polarity: Cathode BandMarking: Type Number
- Weight: 0.30 grams (approximate)

## **Ordering Information** (Note 2)

Device	Packaging	Shipping
1N4001G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4002G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4003G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4004G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4005G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4006G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4007G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch

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

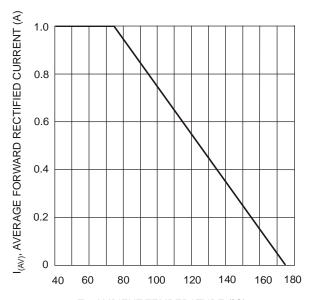
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

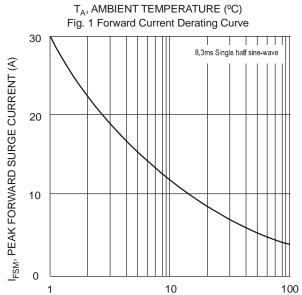
Characteristic	Symbol	1N4001 G	1N4002 G	1N4003 G	1N4004 G	1N4005 G	1N4006 G	1N4007 G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 3) @ T <sub>A</sub> = 75°C	Io	1.0					Α		
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30					Α		
Forward Voltage @ I <sub>F</sub> = 1.0A	$V_{FM}$	1.0					V		
Peak Reverse Current @T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 125°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	$T_{J_i} T_{STG}$	-65 to +175						°C	

Notes:

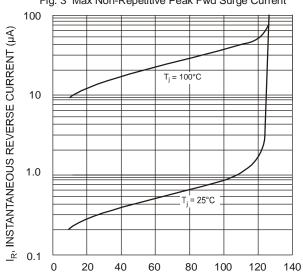
- 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
- 2. For packaging details, visit our website at http://www.diodes.com.
- 3. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
- 4. Measured with  $I_F$  =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



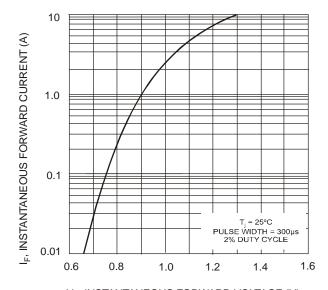




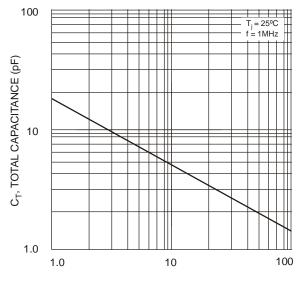
NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics



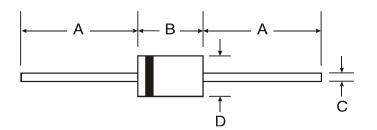
 $V_{\text{F}}$ , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



V<sub>R</sub>, REVERSE VOLTAGE (V) Fig. 4 Typical Total Capacitance



## **Package Outline Dimensions**



DO-41 Plastic					
Dim	Min Max				
Α	25.40				
В	4.06	5.21			
С	0.71	0.864			
D	2.00	2.72			
All Dimensions in mm					

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