

## 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 **(E3)**
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.30 grams (approximate)

## Ordering Information (Note 2)

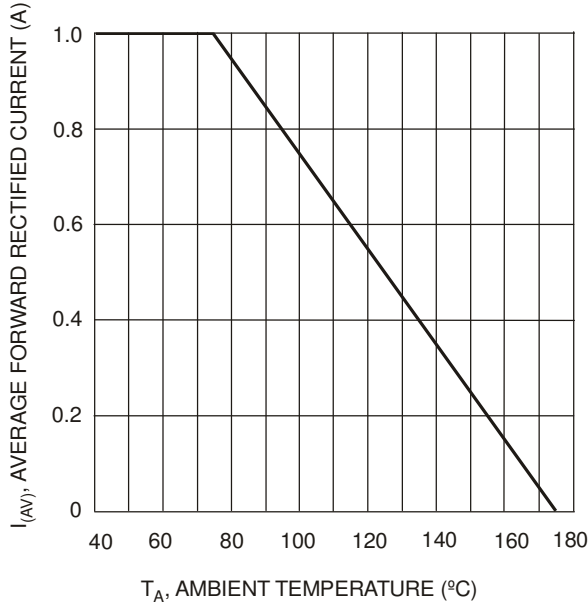
Device	Packaging	Shipping
1N4001G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4002G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4003G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4004G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4005G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4006G-T	DO-41 Plastic	5K/Tape & Reel,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

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

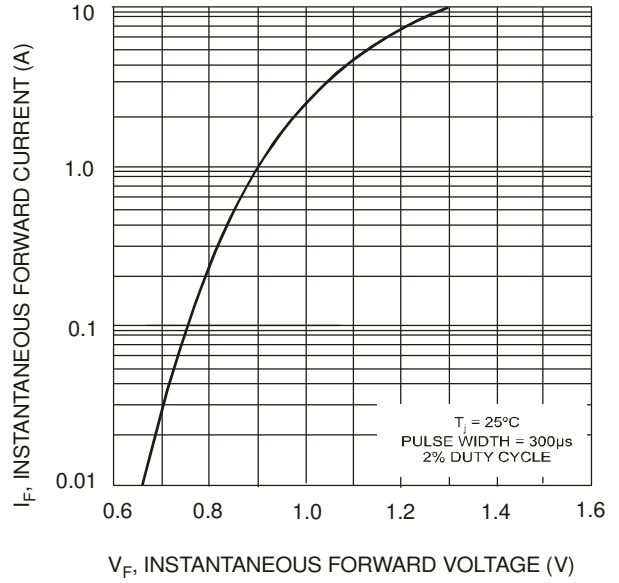
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N4001 G	1N4002 G	1N4003 G	1N4004 G	1N4005 G	1N4006 G	1N4007 G	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Working Peak Reverse Voltage	V <sub>RWM</sub>									
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) @ T <sub>A</sub> = 75°C	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> = 125°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 +175			°C	

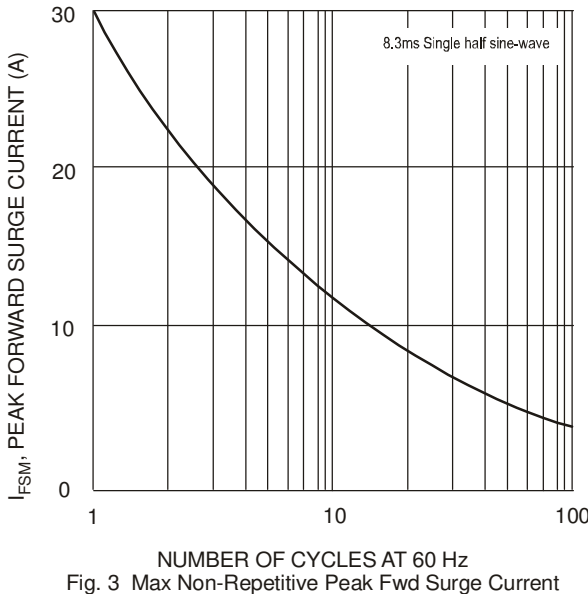
- Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
  2. For packaging details, visit our website at <http://www.diodes.com>.
  3. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  4. Measured with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



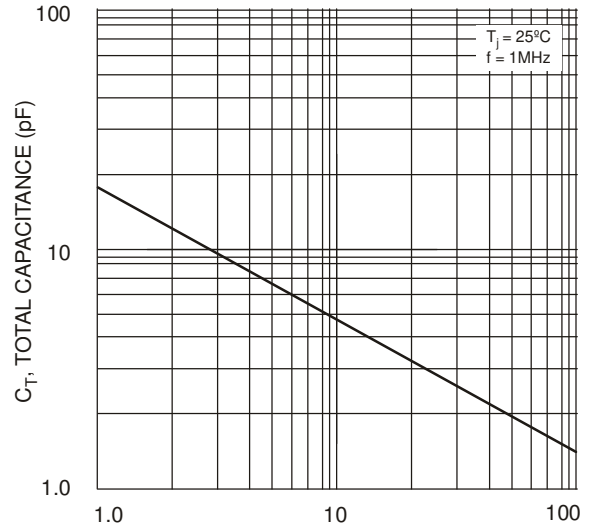
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



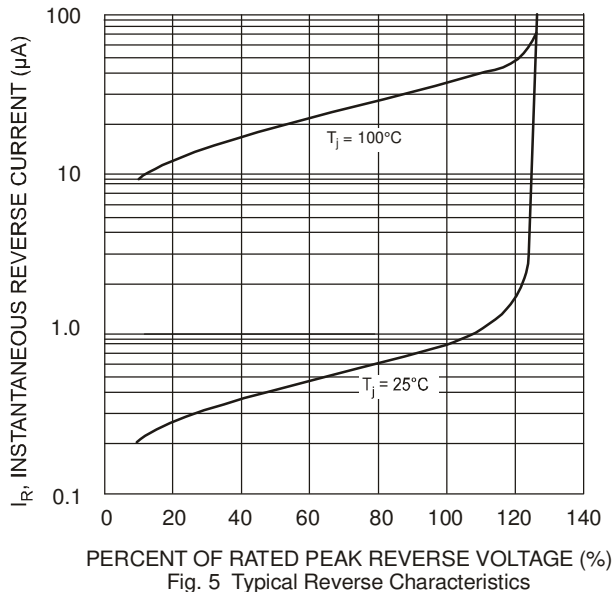
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



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

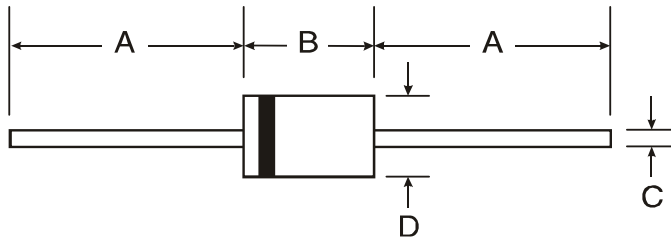


$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance



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

## Package Outline Dimensions



DO-41 Plastic		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

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