

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)

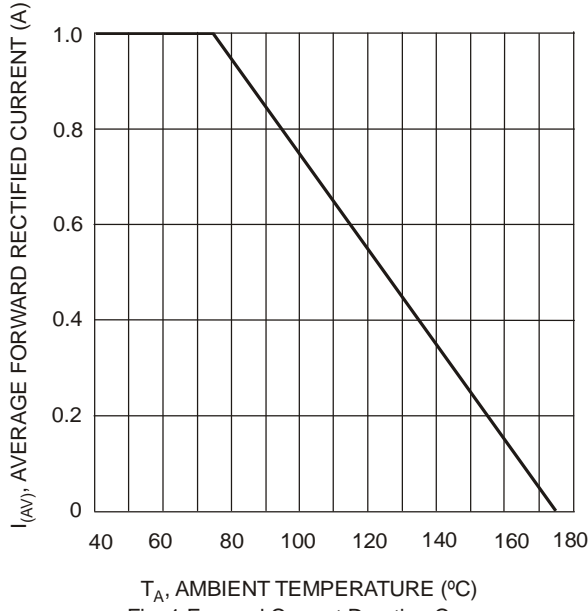
Device	Packaging	Shipping
1N4001G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4002G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4003G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4004G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4005G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4006G-T	DO-41 Plastic	5K/Tape & Reel,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

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

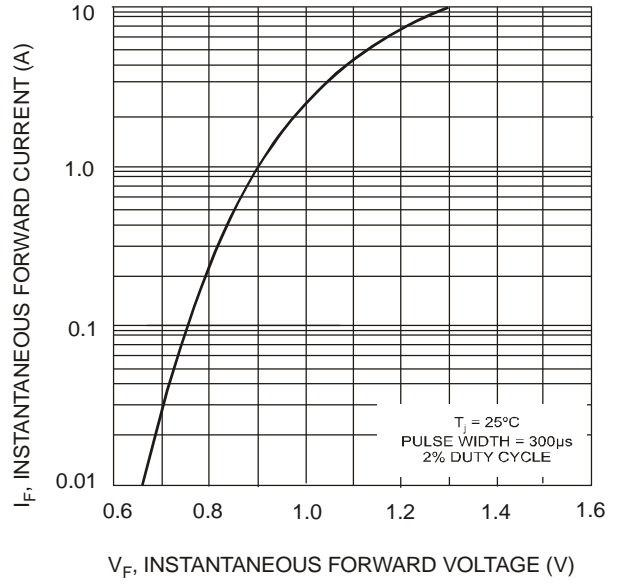
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N4001 G	1N4002 G	1N4003 G	1N4004 G	1N4005 G	1N4006 G	1N4007 G	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 3) @ $T_A = 75^\circ\text{C}$	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 @ $I_F = 1.0\text{A}$	V_{FM}				1.0				V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_{RM}				5.0				μA
at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$					50				
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				$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}				-65 to +175			$^\circ\text{C}$	

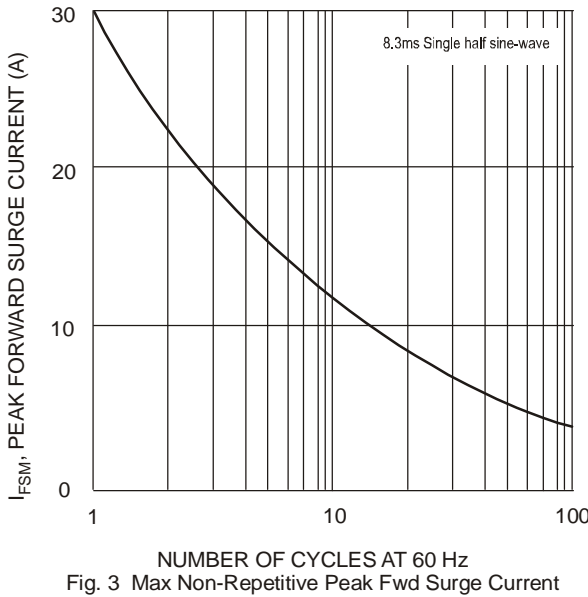
- Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
 2. For packaging details, visit our website at <http://www.diodes.com>.
 3. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
 4. Measured with $I_F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



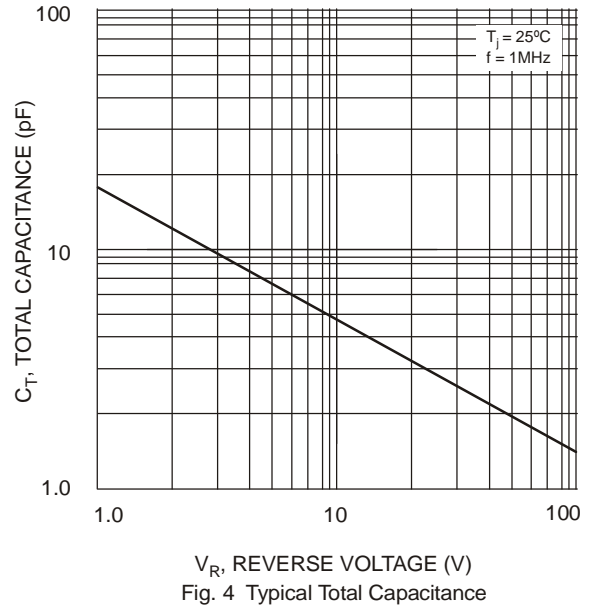
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



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

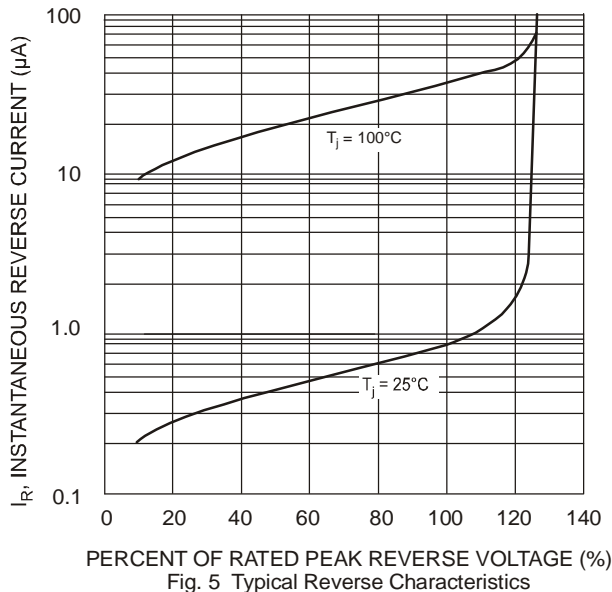
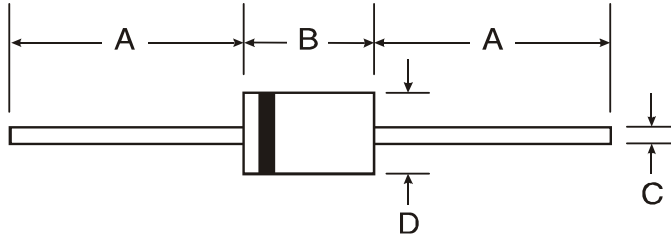


Fig. 5 Typical Reverse Characteristics

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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