

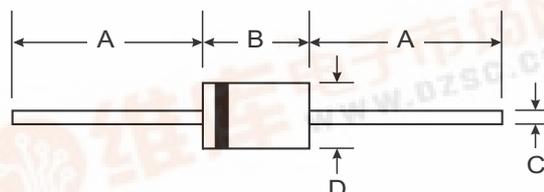


# 1N4001G/L - 1N4007G/L

## 1.0A GLASS PASSIVATED RECTIFIER

### Features

- Glass Passivated Die Construction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Lead Free Finish, RoHS Compliant (Note 4)



### Mechanical Data

- Case: DO-41 Plastic, A-405
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Tin. Plated Leads Solderable per MIL-STD-202, Method 208 (e3)
- Polarity: Cathode Band
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: DO-41 0.30 grams (approximate)  
A-405 0.20 grams (approximate)

Dim	DO-41 Plastic		A-405	
	Min	Max	Min	Max
A	25.40	—	25.40	—
B	4.06	5.21	4.10	5.20
C	0.71	0.864	0.53	0.64
D	2.00	2.72	2.00	2.70

**All Dimensions in mm**

"L" Suffix Designates A-405 Package  
No Suffix Designates DO-41 Package

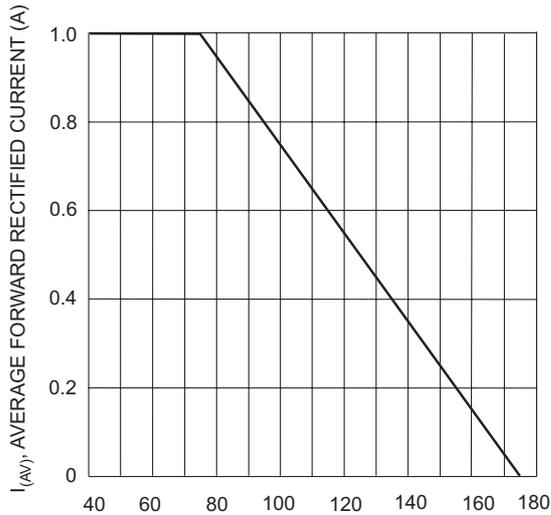
### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

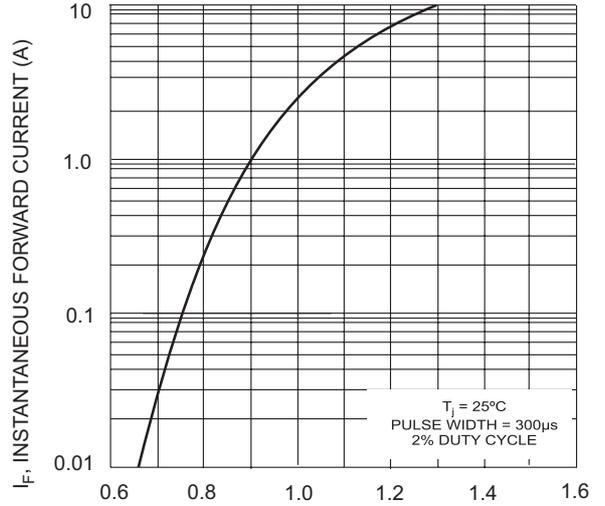
Characteristic	Symbol	1N4001 G/GL	1N4002 G/GL	1N4003 G/GL	1N4004 G/GL	1N4005 G/GL	1N4006 G/GL	1N4007 G/GL	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ 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 at Rated DC Blocking Voltage @ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 50							μA
Reverse Recovery Time (Note 3)	t <sub>rr</sub>	2.0							μs
Typical Total Capacitance (Note 2)	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. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
  3. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = -1A, I<sub>rr</sub> = 0.25A.
  4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

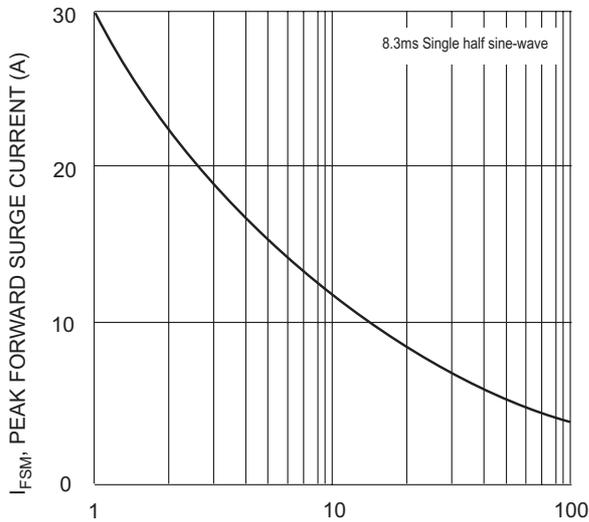




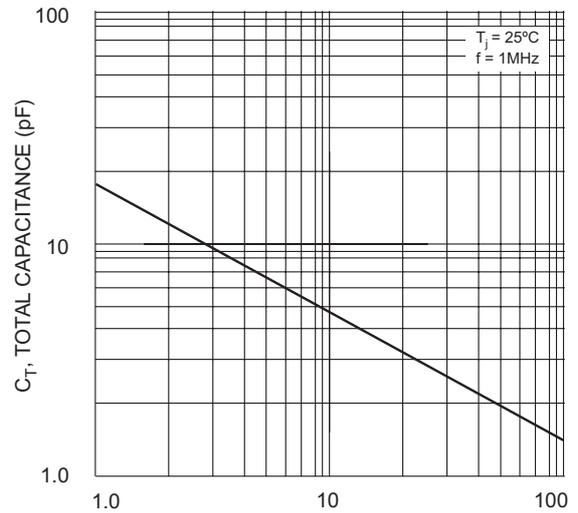
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , 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

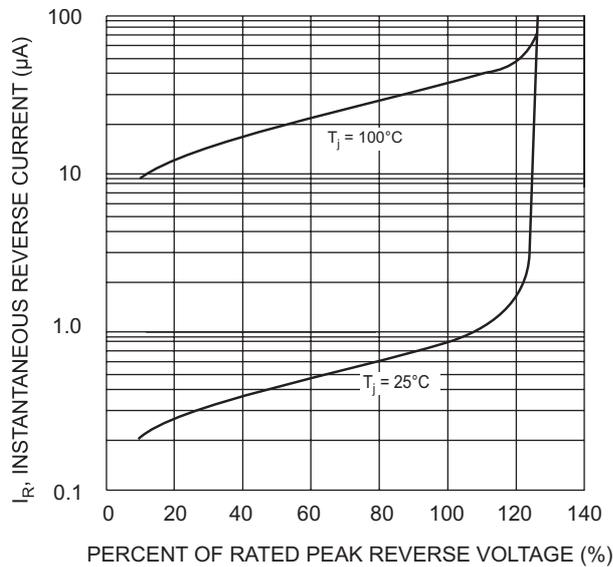


Fig. 5 Typical Reverse Characteristics

## Ordering Information (Note 5)

Device	Packaging	Shipping
1N4001G-A	DO-41 Plastic	5K/Ammo Pack
1N4001G-B	DO-41 Plastic	1K/Bulk
1N4001G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4002G-A	DO-41 Plastic	5K/Ammo Pack
1N4002G-B	DO-41 Plastic	1K/Bulk
1N4002G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4003G-A	DO-41 Plastic	5K/Ammo Pack
1N4003G-B	DO-41 Plastic	1K/Bulk
1N4003G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4004G-A	DO-41 Plastic	5K/Ammo Pack
1N4004G-B	DO-41 Plastic	1K/Bulk
1N4004G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4005G-A	DO-41 Plastic	5K/Ammo Pack
1N4005G-B	DO-41 Plastic	1K/Bulk
1N4005G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4006G-A	DO-41 Plastic	5K/Ammo Pack
1N4006G-B	DO-41 Plastic	1K/Bulk
1N4006G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4007G-A	DO-41 Plastic	5K/Ammo Pack
1N4007G-B	DO-41 Plastic	1K/Bulk
1N4007G-T	DO-41 Plastic	5K/Tape & Reel, 13-inch
1N4001GL-T	A-405	5K/Tape & Reel, 13-inch
1N4002GL-T	A-405	5K/Tape & Reel, 13-inch
1N4003GL-T	A-405	5K/Tape & Reel, 13-inch
1N4004GL-T	A-405	5K/Tape & Reel, 13-inch
1N4005GL-T	A-405	5K/Tape & Reel, 13-inch
1N4006GL-T	A-405	5K/Tape & Reel, 13-inch
1N4007GL-T	A-405	5K/Tape & Reel, 13-inch

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>

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