1N4001G/L - 1N4007G/L

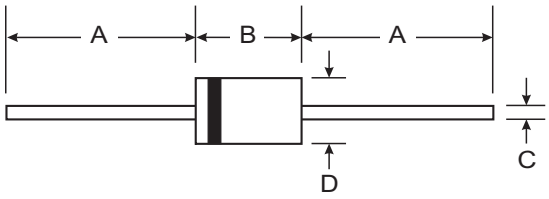
1.0A GLASS PASSIVATED RECTIFIER

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)



	DO-41 Plastic		A-405	
Dim	**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_A = 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_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ T_A = 75°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 = 1.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A = 25°C at Rated DC Blocking Voltage @ T_A = 125°C	I_{RM}	5.0 50							μA
Reverse Recovery Time (Note 3)	t_{rr}	2.0							μs
Typical Total Capacitance (Note 2)	C_T	8.0							pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100							°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-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_F = 0.5A, I_R = -1A, I_{rr} = 0.25A.
4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7.*

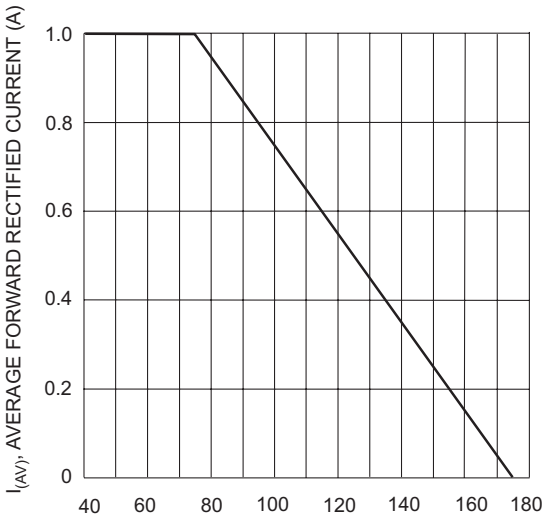


Fig. 1 Forward Current Derating Curve

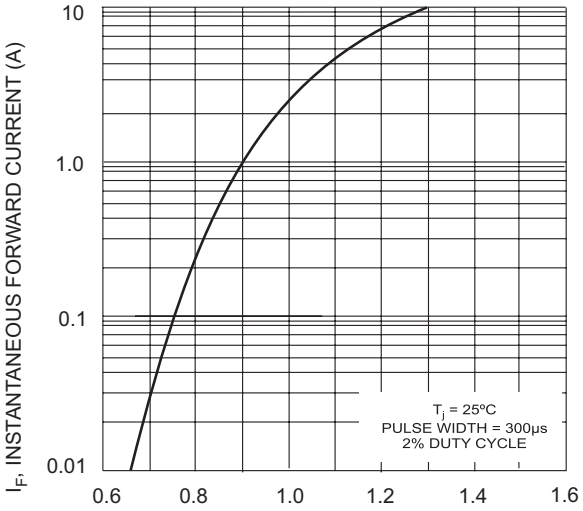


Fig. 2 Typical Forward Characteristics

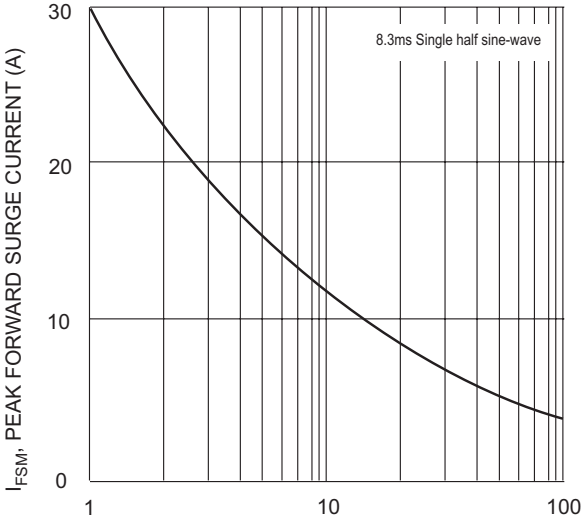


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

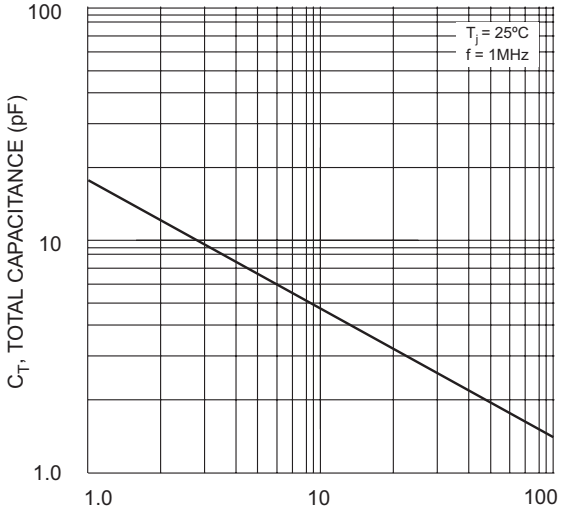


Fig. 4 Typical Total Capacitance

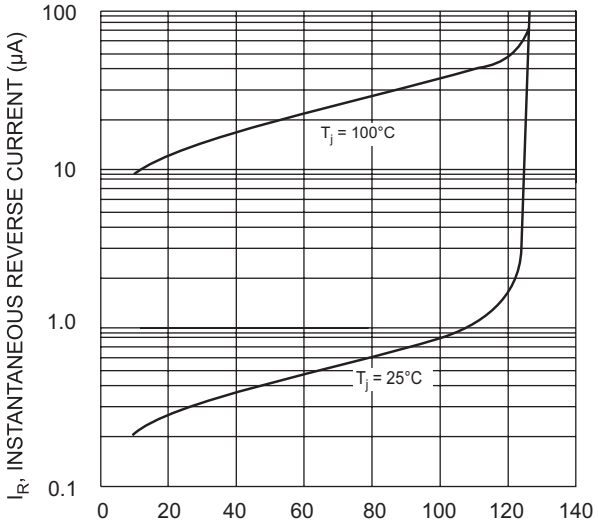


Fig. 5 Typical Reverse Characteristics

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