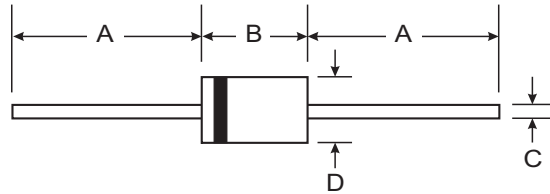


### Features

- 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*.

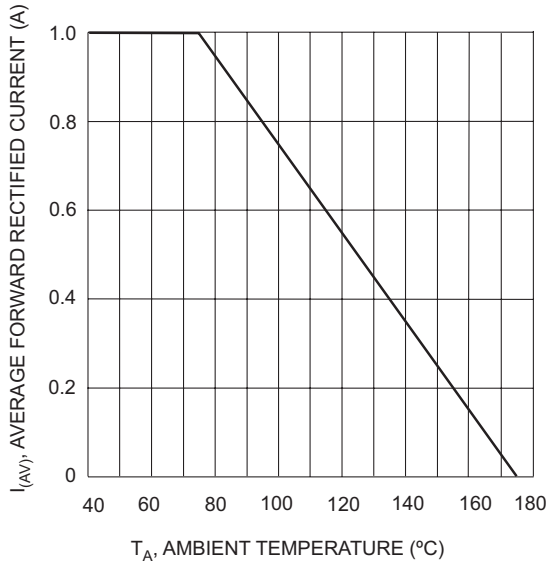


Fig. 1 Forward Current Derating Curve

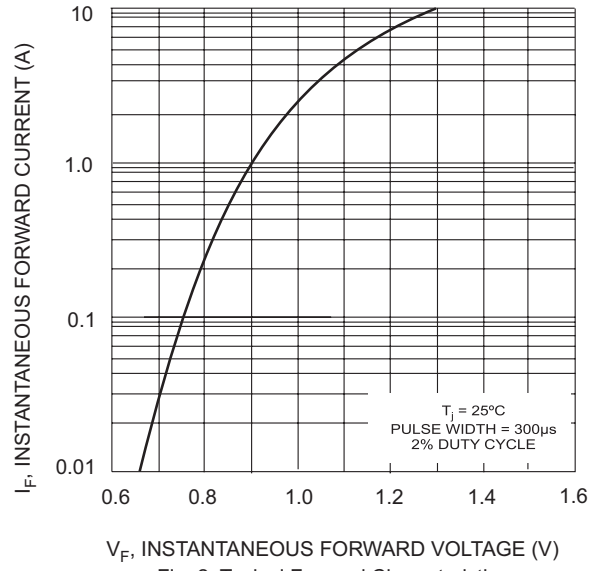


Fig. 2 Typical Forward Characteristics

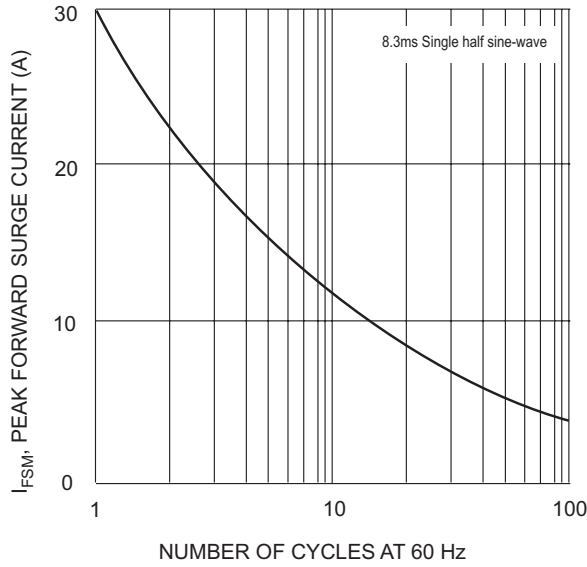


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

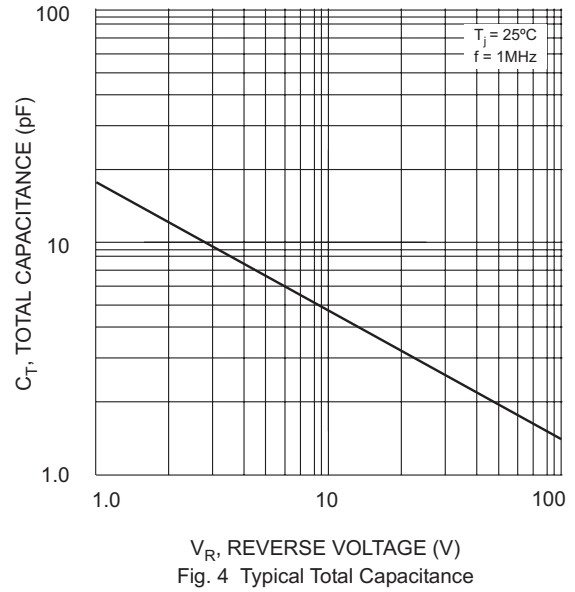


Fig. 4 Typical Total Capacitance

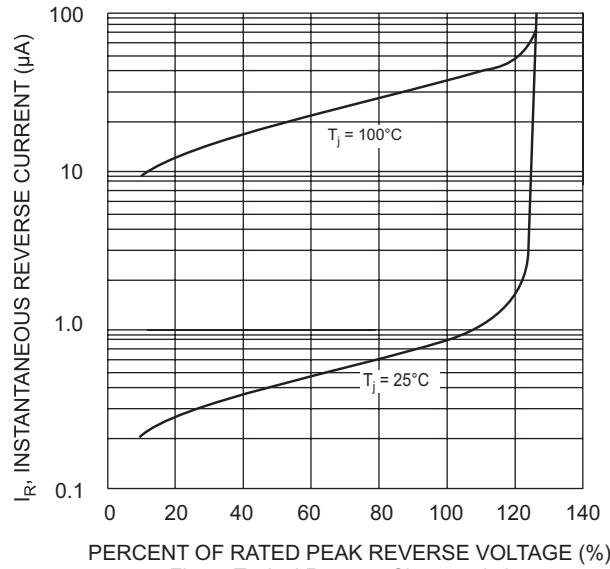


Fig. 5 Typical Reverse Characteristics

## 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>

### IMPORTANT NOTICE

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

### LIFE SUPPORT

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.