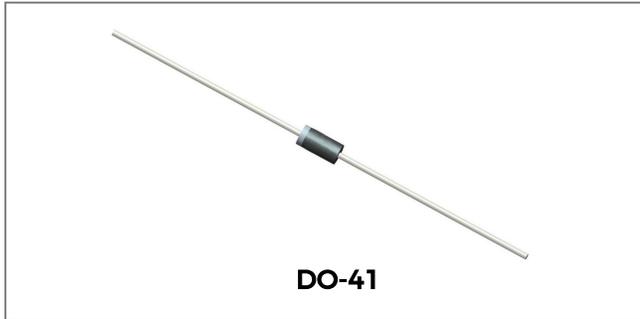


## 1N4001G THRU 1N4007G 1.0A GLASS PASSIVATED RECTIFIER



### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- This is a Pb - Free Device
- "-HF" suffix is for Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: molded plastic
- Terminals: Plated leads, solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Mounting Position: Any
- Weight: 0.34 grams (approx)

### 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%.

Type Number	Symbol	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	Units
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								V
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average forward rectified output current @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 (JEDEC Method)	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 At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 50							μA
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	8							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	100							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +175							°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**Ratings and Characteristics Curves**

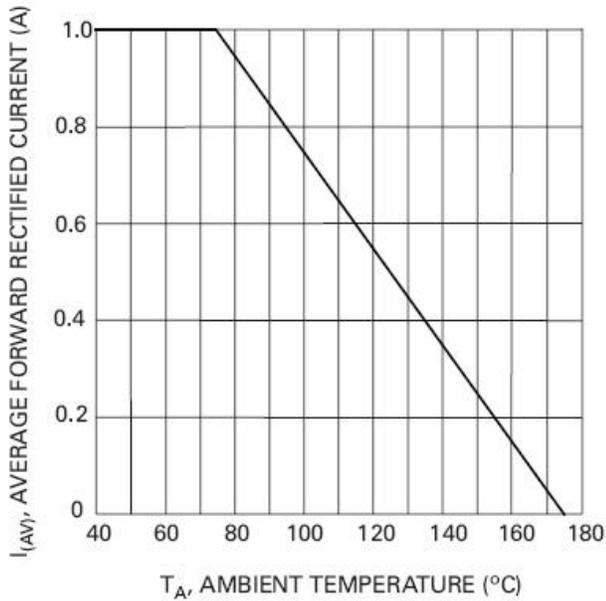


Fig. 1 Forward Current Derating Curve

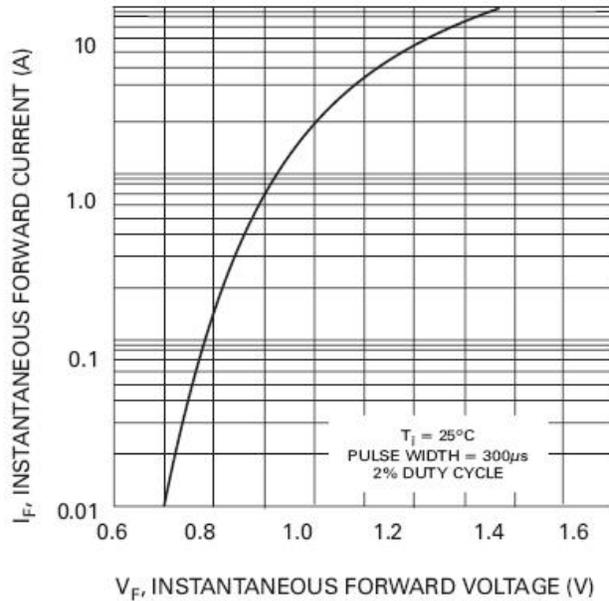


Fig. 2 Typical Forward Characteristics

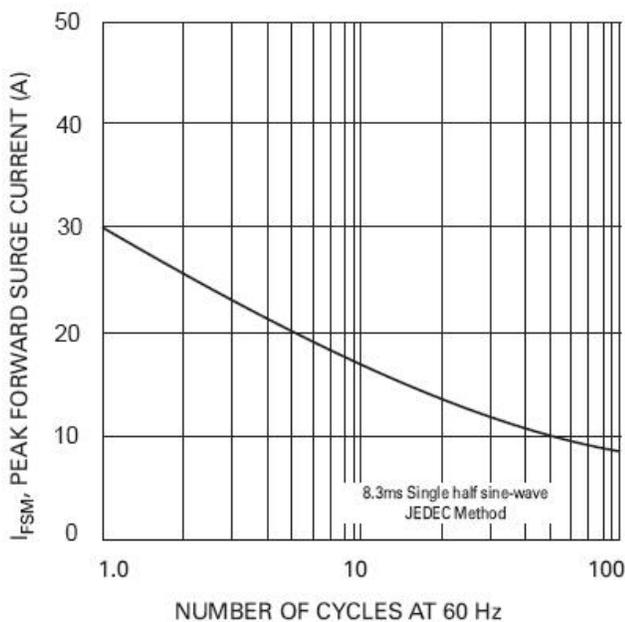


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

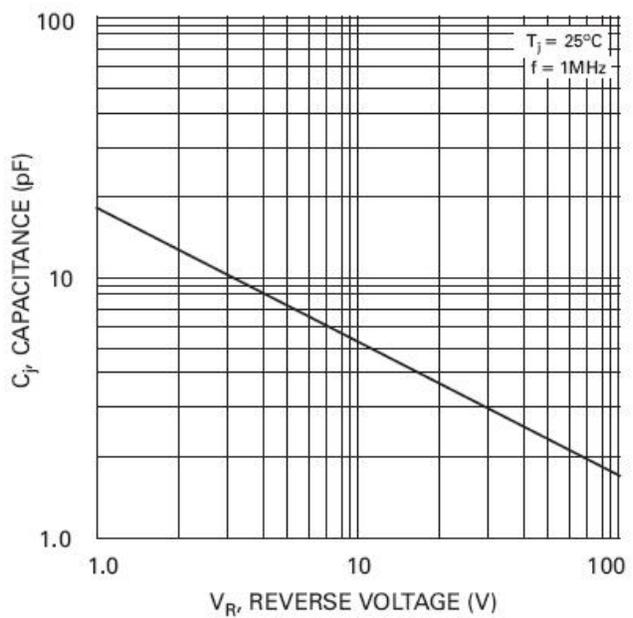
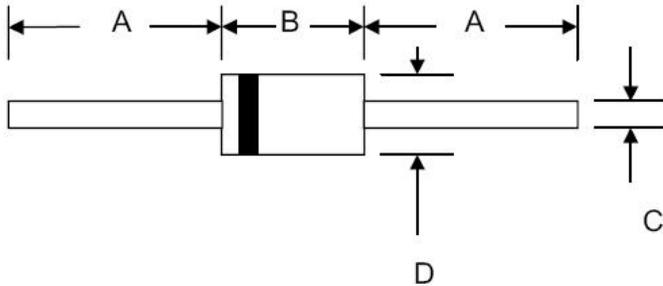


Fig. 4 Typical Junction Capacitance

## Mechanical Dimensions DO-41



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.06	5.21	0.160	0.205
C	0.71	0.864	0.028	0.034
D	2.00	2.72	0.079	0.107

## Ordering Information

Device	Package	Shipping
1N4001G-1N4007G	DO-41 (Pb-Free)	5000pcs / Tape
1N4001GTA- 1N4007GTA	DO-41 (Pb-Free)	5000pcs / Tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Marking Diagram



1N4001G



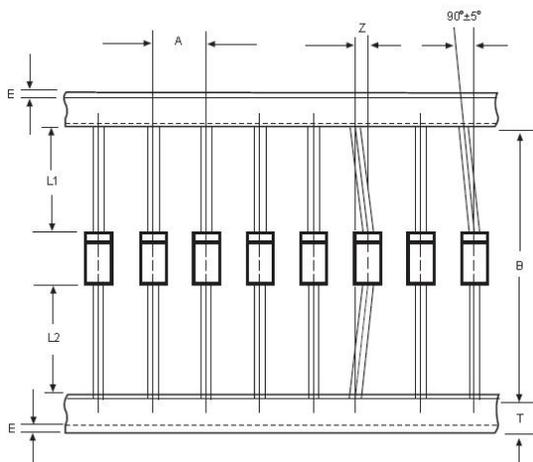
1N4001G-HF

Where XXXXX is YYWWL

1N4001G = Type Number  
SSG = SSG  
HF = Halogen Free  
YY = Year  
WW = Week  
L = Lot Number

Cautions: Molding resin  
Epoxy resin UL94V-0

## Carrier Tape Specification DO-41



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

**DISCLAIMER:**

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..