imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



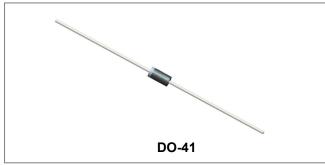


1N4001G THRU 1N4007G

Technical Data Data Sheet N0544, Rev. A



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
- 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_A=25°C unless otherwise specified

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

Type Number	Symbol	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	Units
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	VRMS	35	70	140	280	420	560	700	V
Average forward rectified output current @T _A = 75°C	lo				1.0				А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30			A				
Forward Voltage @I _F =1.0A	Vfm				1.0				V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	IRM				5.0 50				μA
Typical Junction Capacitance (Note 2)	CJ				8				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	Reja	100			°C/W				
Operating Junction Temperature Range	TJ			-(65 to +1	75			°C
Storage Temperature Range	Tstg			-(65 to +1	75			°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.

- China Germany Korea Singapore United States •
- http://www.smc-diodes.com sales@ smc-diodes.com •



Technical Data Data Sheet N0544, Rev. A

1.0

0.8

0.6

0.4

0.2

0

40

60

80

100

120

140

(_{AV)}, AVERAGE FORWARD RECTIFIED CURRENT (A)

I_{FSM}, PEAK FORWARD SURGE CURRENT (A)

RoHS Pb **Ratings and Characteristics Curves** 10 IF, INSTANTANEOUS FORWARD CURRENT (A) 1.0 0.1

 $T_j = 25^{\circ}C$ ULSE WIDTH = 300µs 2% DUTY CYCLE

1.2

1.4

1.6

1MH:

100

T_A, AMBIENT TEMPERATURE (°C) V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 1 Forward Current Derating Curve Fig. 2 Typical Forward Characteristics 50 100

160

180

$T_1 = 25^{\circ}C$ 40 Cj, CAPACITANCE (pF) 30 10 20 10 ns Single half sine JEDEC Method 0 1.0 1.0 10 1.0 10 100 V_R, REVERSE VOLTAGE (V) NUMBER OF CYCLES AT 60 Hz

0.01 0.6

0.8

1.0

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

Fig. 4 Typical Junction Capacitance

• China - Germany - Korea - Singapore - United States • http://www.smc-diodes.com - sales@ smc-diodes.com •



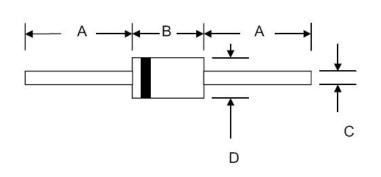


Technical Data Data Sheet N0544, Rev. A





Mechanical Dimensions DO-41



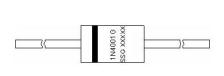
SYMBOL	Millin	neters	Inches			
	Min. Max.		Min.	Max.		
A	25.4	-	1.000	-		
В	4.06	5.21	0.160	0.205		
С	0.71	0.864	0.028	0.034		
D	2.00	2.72	0.079	0.107		

Ordering Information

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

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

Marking Diagram



Where XXXXX is YYWWL

```
1N4001G = Type Number
SSG
```

```
= SSG
```

ΥY

L

ww

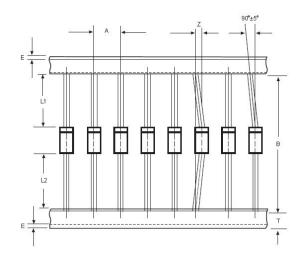
= Year = Week

= Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

Carrier Tape Specification DO-41



SYMBOL	Millimeters			
	Min.	Max.		
А	4.50	5.50		
В	50.9	53.9		
Z	-	1.20		
Т	5.60	6.40		
E	-	0.80		
IL1-L2I	-	1.0		



Technical Data Data Sheet N0544, Rev. A





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 - Sangdest Microelectronics (Nanjing) Co., Ltd 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 - Sangdest Microelectronics (Nanjing) Co., Ltd 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 - Sangdest Microelectronics (Nanjing) Co., Ltd 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 - Sangdest Microelectronics (Nanjing) Co., Ltd 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 - Sangdest Microelectronics (Nanjing) Co., Ltd.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

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..

http://www.smc-diodes.com - sales@ smc-diodes.com -