

## **Excellent Integrated System Limited**

Stocking Distributor

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<u>Diodes Incorporated</u> <u>1N5408G-T</u>

For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>



## Distributor of Diodes Incorporated: Excellent Integrated System Limited

Datasheet of 1N5408G-T - DIODE GEN PURP 1KV 3A DO201AD

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1N5400G - 1N5408G

#### 3.0A GLASS PASSIVATED RECTIFIER

## **Features and Benefits**

- Glass Passivated Die Construction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 125A Peak
- Lead-Free Finish; RoHS Compliant (Notes 1 & 2)

### **Mechanical Data**

- Case: DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Matte Tin. Plated Leads Solderable per MIL-STD-202, Method@38
- Polarity: Cathode Band Marking: Type Number
- Weight: 1.12 grams (approximate)

## Ordering Information (Note 3)

Device	Packaging	Shipping		
1N5400G-B	DO-201AD	500/Bulk		
1N5400G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5401G-B	DO-201AD	500/Bulk		
1N5401G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5402G-B	DO-201AD	500/Bulk		
1N5402G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5403G-B	DO-201AD	500/Bulk		
1N5403G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5404G-B	DO-201AD	500/Bulk		
1N5404G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5405G-B	DO-201AD	500/Bulk		
1N5405G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5406G-B	DO-201AD	500/Bulk		
1N5406G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5407G-B	DO-201AD	500/Bulk		
1N5407G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		
1N5408G-B	DO-201AD	500/Bulk		
1N5408G-T	DO-201AD	1.2K/Tape & Reel, 13-inch		

## Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic		Symbol	1N 5400G	1N 5401G	1N 5402G	1N 5403G	1N 5404G	1N 5405G	1N 5406G	1N 5407G	1N 5408G	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	300	400	500	600	800	1000	V
RMS Reverse Voltage		V <sub>R(RMS</sub> )	35	70	140	210	280	350	420	580	700	V
Average Rectified Output Current (Note 4)	@ T <sub>A</sub> = 55°C	lo					3.0					Α
Non-Repetitive Peak Forward Surge single half sine-wave superimposed of		I <sub>FSM</sub>					125					Α
Forward Voltage	$@ I_F = 3.0A$	$V_{FM}$					1.1					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>					5.0 100					μΑ
Typical Reverse Recovery Time (Note	e 5)	t <sub>rr</sub>					2.0					μS
Typical Total Capacitance (Note 6)		C <sub>T</sub>					40					pF
Typical Thermal Resistance Junction	to Ambient	$R_{\theta JA}$					16					°C/W
Operating and Storage Temperature	Range	T <sub>J.</sub> T <sub>STG</sub>				-6	65 to +15	50				°C

Notes:

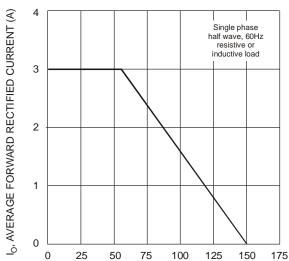
- 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
- 2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. For packaging details, visit our website at http://www.diodes.com.
- 4. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
- 5. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ . See figure 5.
- 6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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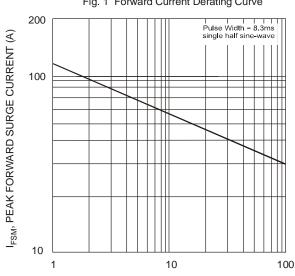
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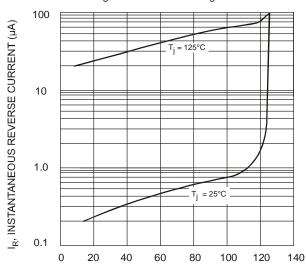
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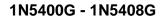
T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve

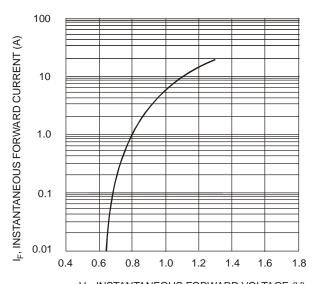


NUMBER OF CYCLES AT 60 Hz Fig. 3 Peak Forward Surge Current

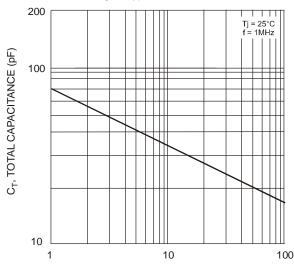


PERCENT OF RATED PEAK VOLTAGE (%) Fig. 5 Typical Reverse Characteristics





V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



V<sub>R</sub>, REVERSE VOLTAGE (V) Fig. 4 Typical Total Capacitance

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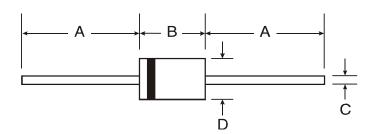
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1N5400G - 1N5408G

## Package Outline Dimensions



DO-201AD						
Dim	Min	Max				
Α	25.40	_				
В	7.20	9.50				
C	1.20	1.30				
D	<b>D</b> 4.80 5.30					
All Dimensions in mm						

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  - 2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.
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