### **General Purpose Silicon Rectifiers**



# 1N5400-G Thru. 1N5408-G

Voltage: 50 to 1000 V

Current: 3.0 A RoHS Device



#### **Features**

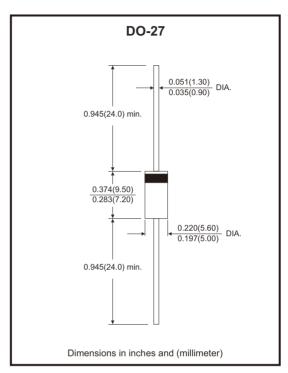
- Open junction chip.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250°C/10 seconds at terminals.

#### **Mechanical data**

- Epoxy: UL 94V-0 rate flame retardant.
- Case: DO-27, molded plastic.
- Terminals: Solder plated, solderable per

MIL-STD-750, method 2026.

- Polarity: Color band denotes cathode.
- Mounting position: Any.



#### **Circuit Diagram**



#### **Maximum Ratings and Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter  |  | Symbol             | 1N5400<br>-G | 1N5401<br>-G | 1N5402<br>-G | 1N5404<br>-G | 1N5406<br>-G | 1N5407<br>-G | 1N5408<br>-G | Unit |
|--|--|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Maximum repetitive peak reverse voltage  |  | V <sub>RRM</sub>   | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | V    |
| Maximum RMS voltage  |  | V <sub>RMS</sub>   | 35           | 70           | 140          | 280          | 420          | 560          | 700          | V    |
| Maximum DC blocking voltage  |  | V <sub>DC</sub>    | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | V    |
| Maximum average forward rectified current at TL=100°C                              |  | I <sub>F(AV)</sub> | 3.0          |              |              |              |              |              |              | А    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load |  | İfsm               | 150          |              |              |              |              |              | А            |      |
| Maximum instantaneous forward voltage at 3.0A                                      |  | VF                 | 1.10         |              |              |              |              |              | V            |      |
| Maximum DC reverse current at rated DC blocking voltage @Ta=125°C                  |  | ĪR                 | 10.0<br>500  |              |              |              |              |              | μА           |      |
| Typical junction capacitance (Note 1)  |  | C <sub>J</sub>     | 50           |              |              |              |              |              | pF           |      |
| Typical thermal resistance   |  | Reja               | 45           |              |              |              |              |              | °C/W         |      |
| Operating junction and storage temperature range                                   |  | TJ, Tstg           | -55 to +150  |              |              |              |              | °C           |              |      |

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Company reserves the right to improve product design, functions and reliability without notice.

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Rating and Characteristic Curves (1N5400-G Thru. 1N5408-G)

Fig.1 - Derating Curve Output Rectified Current

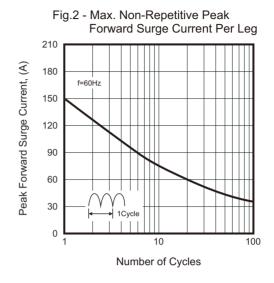
3.0

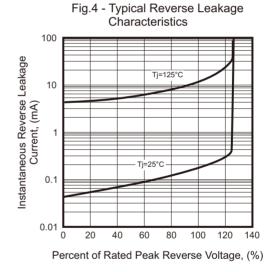
2.0

0 20 40 60 80 100 120 140 160

Lead Temperature, (°C)

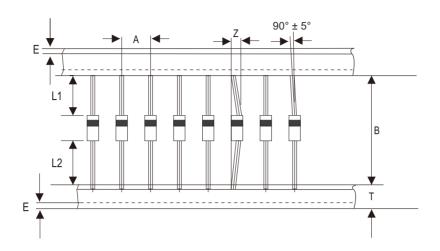
Instantaneous Forward Voltage, (V)

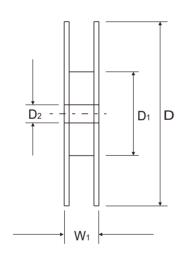


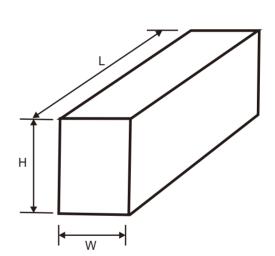




## **Taping Specification For Axial Lead Diodes**







|       | SYMBOL | Α             | В                        | Z           | Т             | E           | L1-L2       |
|-------|--------|---------------|--------------------------|-------------|---------------|-------------|-------------|
| DO-27 | (mm)   | 10.00 ± 0.50  | 52.40 + 1.50<br>- 0.40   | 1.20 (max)  | 6.00 ± 0.40   | 0.80 (max)  | 1.00 (max)  |
|       | (inch) | 0.394 ± 0.020 | 2.063 + 0.059<br>- 0.016 | 0.047 (max) | 0.236 ± 0.016 | 0.031 (max) | 0.039 (max) |

|       | SYMBOL | L              | W             | Н             | D      | D1            | D2            | <b>W</b> 1    |
|-------|--------|----------------|---------------|---------------|--------|---------------|---------------|---------------|
| DO-27 | (mm)   | 255.00 ± 5.00  | 75.00 ± 5.00  | 150.00 ± 5.00 | 330    | 85.70 ± 0.30  | 16.60 ± 0.40  | 79.00 ± 1.00  |
|       | (inch) | 10.039 ± 0.197 | 2.953 ± 0.197 | 5.906 ± 0.197 | 12.992 | 3.374 ± 0.012 | 0.654 ± 0.016 | 3.110 ± 0.039 |

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## **Marking Code**

| Part Number | Marking code | Packaging |
|-------------|--------------|-----------|
| 1N5400-G    | 1N5400       |           |
| 1N5401-G    | 1N5401       |           |
| 1N5402-G    | 1N5402       |           |
| 1N5404-G    | 1N5404       | AMMO      |
| 1N5406-G    | 1N5406       |           |
| 1N5407-G    | 1N5407       |           |
| 1N5408-G    | 1N5408       |           |
| 1N5400T-G   | 1N5400       |           |
| 1N5401T-G   | 1N5401       |           |
| 1N5402T-G   | 1N5402       |           |
| 1N5404T-G   | 1N5404       | REEL      |
| 1N5406T-G   | 1N5406       |           |
| 1N5407T-G   | 1N5407       |           |
| 1N5408T-G   | 1N5408       |           |
| 1N5400B-G   | 1N5400       |           |
| 1N5401B-G   | 1N5401       |           |
| 1N5402B-G   | 1N5402       |           |
| 1N5404B-G   | 1N5404       | BULK      |
| 1N5406B-G   | 1N5406       |           |
| 1N5407B-G   | 1N5407       |           |
| 1N5408B-G   | 1N5408       |           |



#### XX = Product type marking code

Note:

1) Suffix code after part number to specify packaging item .

| Packaging | Code |
|-----------|------|
| AMMO PACK | NA   |
| REEL PACK | Т    |
| BULK PACK | В    |

### **Standard Packaging**

|           | AMMO PACK    |  |  |
|-----------|--------------|--|--|
| Case Type | BOX<br>(pcs) |  |  |
| DO-27     | 1,200        |  |  |

|           | REEL PACK       |                     |  |  |  |
|-----------|-----------------|---------------------|--|--|--|
| Case Type | REEL<br>( pcs ) | Reel Size<br>(inch) |  |  |  |
| DO-27     | 1,200           | 13                  |  |  |  |

|           | BULK PACK    |
|-----------|--------------|
| Case Type | BOX<br>(pcs) |
| DO-27     | 200          |

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