RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# 1N5400G THRU 1N5408G

## *GLASS PASSIVATED RECTIFIER*

***VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Amperes***

### FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability
* P/N suffix V means AEC-Q101 qualified, e.g:1N5400GV
* P/N suffix V means Halogen-free

### MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight:1.2 grams

**DO-201AD**

Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (@ $T_A$=25 °C unless otherwise noted)

| RATINGS | SYMBOL | 1N5400G | 1N5401G | 1N5402G | 1N5404G | 1N5406G | 1N5407G | 1N5408G | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at $T_L$ = 105 °C | $I_O$ | 3.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 200 | | | | | | | Amps |
| Typical Current Squared Time | $I^2T$ | 166 | | | | | | | $A^2S$ |
| Typical ThermalResistance(Note2) | $R_{\theta JA}$ | 20 | | | | | | | °C/W |
| | $R_{\theta JL}$ | 5.0 | | | | | | | |
| TypicalJunctionCapacitance(Note1) | $C_J$ | 30 | | | | | | | pF |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | -55 to + 150 | | | | | | | °C |

ELECTRICAL CHARACTERISTICS (@$T_A$=25 °C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | 1N5400G | 1N5401G | 1N5402G | 1N5404G | 1N5406G | 1N5407G | 1N5408G | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 3.0A DC | | $V_F$ | .98 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @$T_A$ = 25°C | $I_R$ | 0.5 | | | | | | | uAmps |
| | @$T_A$ =150 °C | | 2 | | | | | | | mAmps |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Typical Thermal Resistance : At 9.5mm lead lengths,PCB mounted.

2020-04
REV:D

## RATING AND CHARACTERISTICS CURVES ( 1N5400G THRU 1N5408G)

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

FIG.2 MAXIMUM REVERSE CHARACTERISTICS

FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG.5 TYPICAL JUNCTION CAPACITANCE

## Marking Description

# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---|---|---|---|---|---|---|
| DO-201 | -B | 500 | 300*73*40 | 347*320*271 | 12,000 | 15.9 |

## REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---|---|---|---|---|---|---|---|---|---|
| DO-201 | -T | 1,200 | 1,200 | 5.0 | 52 | 330 | 355*350*335 | 4,800 | 9.10 |

## AMMO PACK

| PACKAGE | PACKING CODE | REEL ( EA ) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON ( EA ) | GROSS WEIGHT (Kg) |
|---|---|---|---|---|---|---|---|---|
| DO-201 | -F | 600 | 9.5 | 52 | 255*73*100 | 400*268*225 | 6,000 | 9.9 |

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

**Как с нами связаться**

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