

# 1N5400 THRU 1N5408

## GENERAL PURPOSE PLASTIC SILICON RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 3.0 AMPERES

### FEATURES

- High current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.

### MECHANICAL DATA

Case: Molded plastic, DO-201AD

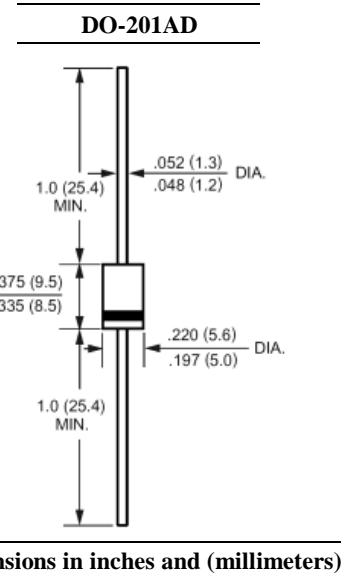
Terminals: Plated axial leads, solderable per

MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.04ounce, 1.1gram



### 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%.

|   | Symbols         | 1N5400      | 1N5401 | 1N5402 | 1N5403 | 1N5404 | 1N5405 | 1N5406 | 1N5407 | 1N5408 | Units |
|---|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 50          | 100    | 200    | 300    | 400    | 500    | 600    | 800    | 1000   | Volts |
| Maximum RMS Voltage   | $V_{RMS}$       | 35          | 70     | 140    | 210    | 280    | 350    | 420    | 560    | 700    | Volts |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50          | 100    | 200    | 300    | 400    | 500    | 600    | 800    | 1000   | Volts |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Length at $T_A=75^\circ\text{C}$           | $I_{(AV)}$      | 3.0         |        |        |        |        |        |        |        |        | Amp   |
| Peak Forward Surge Current,<br>8.3ms single half-sine-wave<br>superimposed on rated load (JEDEC method)   | $I_{FSM}$       | 200         |        |        |        |        |        |        |        |        | Amp   |
| Maximum Forward Voltage<br>at 3.0A DC and 25°C  | $V_F$           | 1.1         |        |        |        |        |        |        |        |        | Volts |
| Maximum Reverse Current at $T_A=25^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$ | $I_R$           | 5.0<br>50   |        |        |        |        |        |        |        |        | uAmp  |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 40          |        |        |        |        |        |        |        |        | pF    |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 30          |        |        |        |        |        |        |        |        | °C/W  |
| Operating Junction Temperature Range  | $T_J$           | -55 to +150 |        |        |        |        |        |        |        |        | °C    |
| Storage Temperature Range   | $T_{stg}$       | -55 to +150 |        |        |        |        |        |        |        |        | °C    |

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted with 0.8x0.8" (20x20mm) copper pads.

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康比電子  
HORNBY ELECTRONIC

### RATINGS AND CHARACTERISTIC CURVES

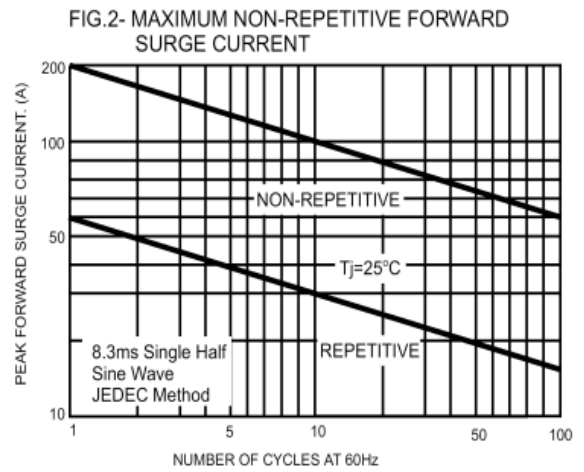
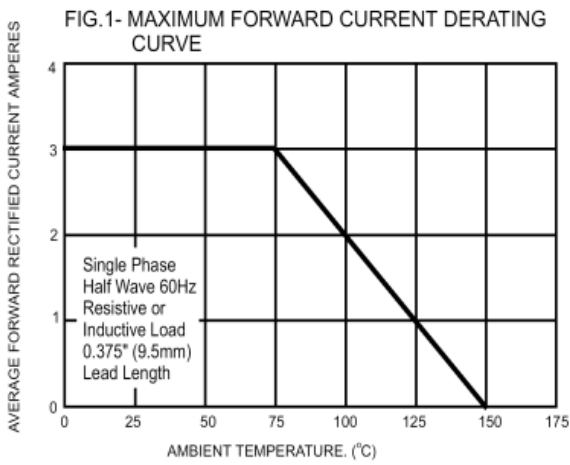


FIG.3- TYPICAL FORWARD CHARACTERISTICS

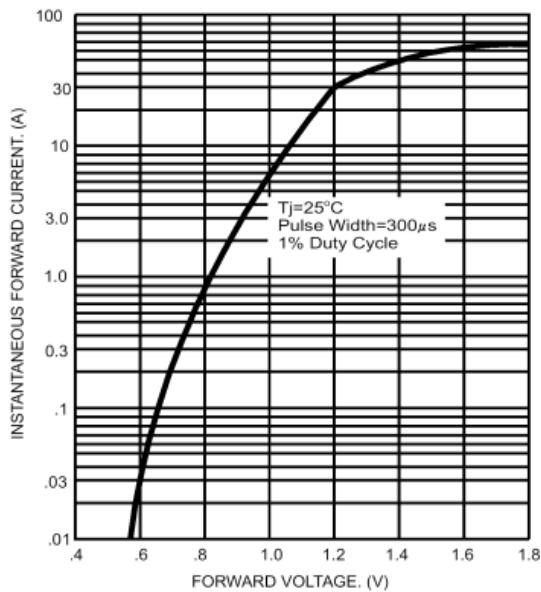


FIG.4- TYPICAL JUNCTION CAPACITANCE

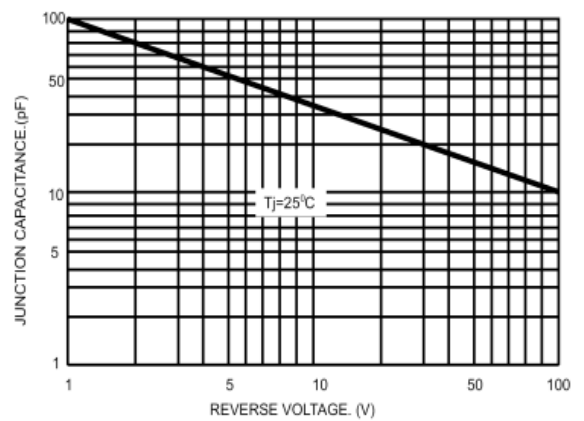


FIG.5- TYPICAL REVERSE CHARACTERISTICS

