

1N5400 THRU 1N5408

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

Reverse Voltage – 50 to 1000 V

Forward Current – 3 A

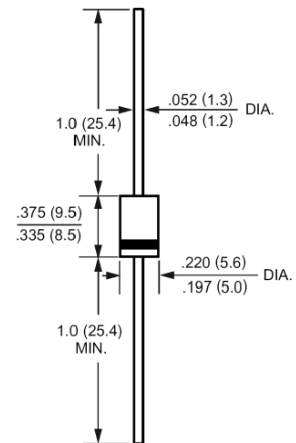
Features

- High current capability
- Low leakage current

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

DO-201AD



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and 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%.

| Parameter | Symbols | 1N | 1N | 1N | 1N | 1N | 1N | 1N | 1N | 1N | Units |
|--|-----------------|-------------|------|------|------|------|------|------|------|------|--------------------|
| | | 5400 | 5401 | 5402 | 5403 | 5404 | 5405 | 5406 | 5407 | 5408 | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75^\circ\text{C}$ | $I_{(AV)}$ | 3 | | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method) | I_{FSM} | 200 | | | | | | | | | A |
| Maximum Forward Voltage at 3 A DC | V_F | 1.1 | | | | | | | | | V |
| Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$ | I_R | 5 1000 | | | | | | | | | μA |
| Typical Junction Capacitance ¹⁾ | C_J | 50 | | | | | | | | | pF |
| Typical Thermal Resistance ²⁾ | $R_{\theta JA}$ | 18 | | | | | | | | | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range | T_J | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{Stg} | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 VDC.

²⁾ Thermal resistance junction to ambient and junction to lead at 0.375" (9.5 mm) lead length P.C.B mounted with 0.8 X 0.8" (20 X 20 mm) copper pads.

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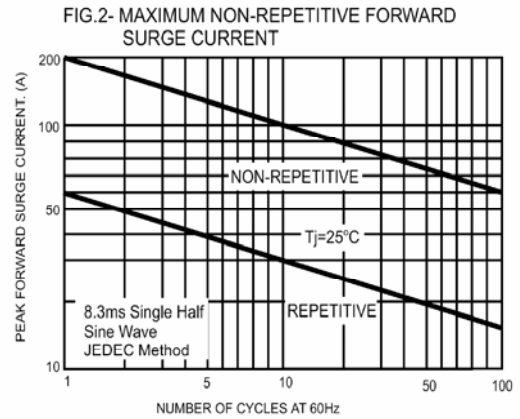
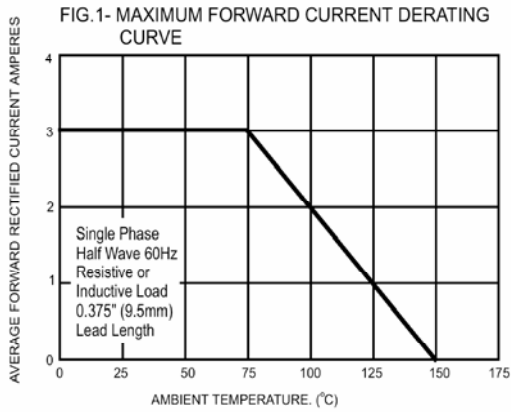


FIG.3- TYPICAL FORWARD CHARACTERISTICS

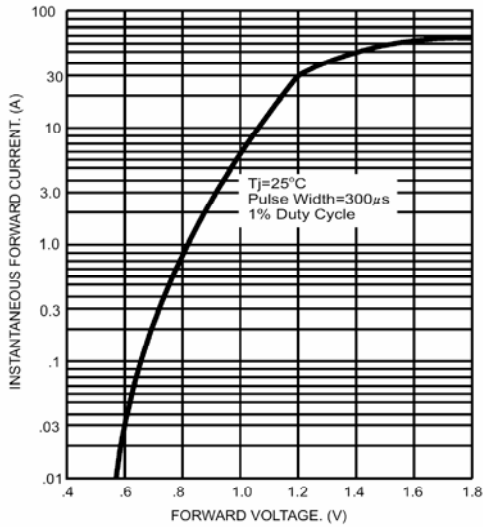


FIG.4- TYPICAL JUNCTION CAPACITANCE

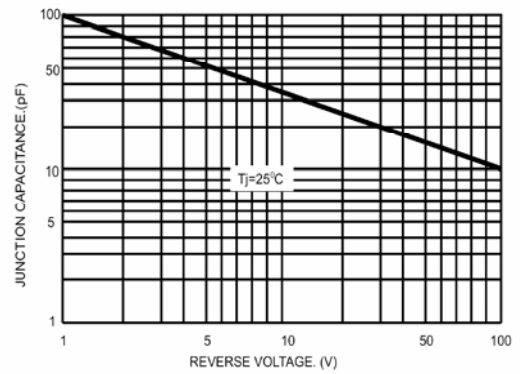


FIG.5- TYPICAL REVERSE CHARACTERISTICS

