

1N5400 THRU 1N5408

HIGH CURRENT PLASTIC SILICON RECTIFIER

VOLTAGE - 50 to 1000 Volts 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

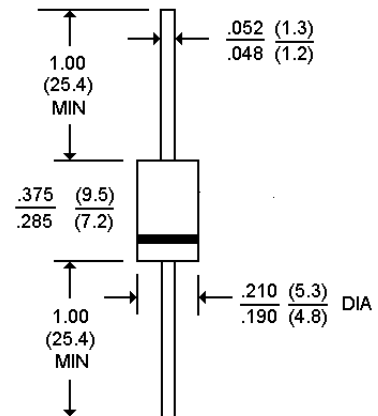
Terminals: Plated axial leads, solderable per MIL-STD-202,
Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.04 ounce, 1.1 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%.

| | 1N5400 | 1N5401 | 1N5402 | 1N5403 | 1N5404 | 1N5405 | 1N5406 | 1N5407 | 1N5408 | UNITS |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T _A =55 °C | 3.0 | | | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | 200 | | | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 3.0A DC | 1.2 | | | | | | | | | V |
| Maximum Reverse Current T _A =25 °C | 5.0 | | | | | | | | | µA |
| at Rated DC Blocking Voltage T _A =100 °C | 1000 | | | | | | | | | µA |
| Maximum Full Load Reverse Current Full Cycle Average 5"(12.5mm)lead length at T _L =105 °C | 0.5 | | | | | | | | | mA |
| Typical Junction capacitance (Note 1) | 30 | | | | | | | | | pF |
| Typical Thermal Resistance (Note 2) R _{θJA} | 20.0 | | | | | | | | | °C/W |
| Operating and Storage Temperature Range T _J ,T _{STG} | -55 TO +150 | | | | | | | | | °C |

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Thermal Resistance Junction to Ambient at 0.375"(9.5mm) lead length, P.C.B. mounted with 0.8×0.8"(20×20mm) copper heatsinks.

RATING AND CHARACTERISTIC CURVES

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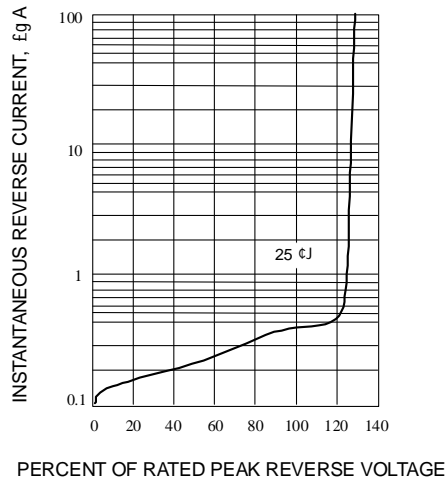


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

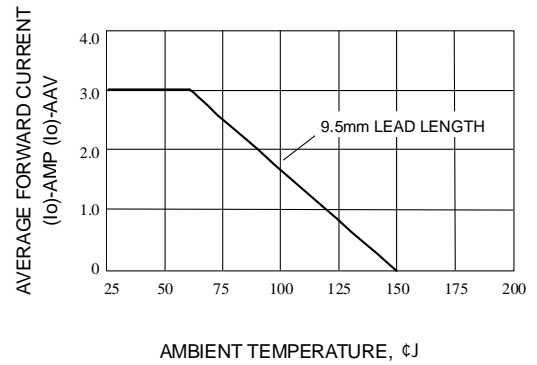


Fig. 2-PEAK FORWARD SURGE CURRENT

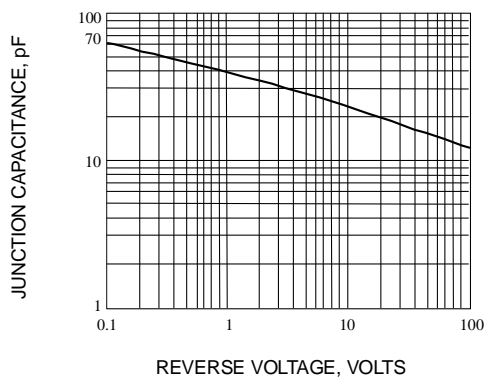


Fig. 3-TYPICAL JUNCTION CAPACITANCE

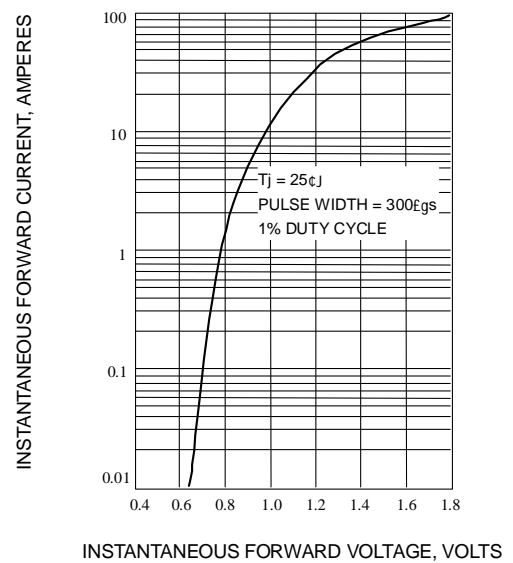


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

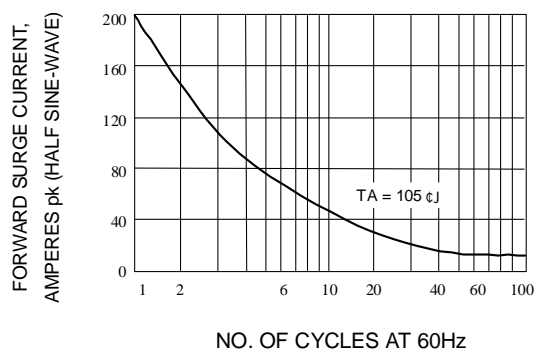


Fig. 5-MAXIMUM OVERLOAD SURGE CURRENT