1N4001 THRU 1N4007

PLASTIC SILICON RECTIFIER VOLTAGE - 50 to 1000 Volts CURRENT - 1.0 Ampere

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, DO-41

Epoxy: UL 94V-O rate flame retardant

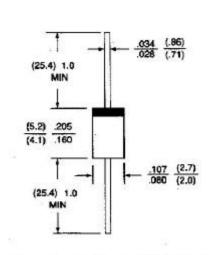
Lead: Axial leads, solderable per MIL-STD-202,

method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram



DO-41

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| _ | 1N4001 | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | UNITS |
|--|--------|--------|--------|-----------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 75 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified | 1.0 | | | | | | | Α |
| Current .375"(9.5mm) Lead Length at | | | | | | | | |
| T _A =75 | | | | | | | | |
| Peak Forward Surge Current 8.3ms single | 30 | | | | | | | Α |
| half sine-wave superimposed on rated load | | | | | | | | |
| (JEDEC method) | | | | | | | | |
| Maximum Forward Voltage at 1.0A DC and | 1.1 | | | | | | | V |
| 25 | | | | | | | | |
| Maximum Full Load Reverse Current Full | 30 | | | | | | | Α |
| Cycle Average at 75 Ambient | | | | | | | | |
| Maximum Reverse Current at T _A =25 | 5.0 | | | | | | | Α |
| At Rated DC Blocking Voltage T _A =100 | 500 | | | | | | | A |
| Typical Junction capacitance (Note 1) | 15 | | | | | | | ₽F |
| Typical Thermal Resistance (Note 2) R JA | 50 | | | | | | | /W |
| Typical Thermal resistance (NOTE 2) R JL | 25 | | | | | | | /W |
| Operating and Storage Temperature Range | | | -5 | 55 to +15 | 0 | | | |
| T_{J} , T_{STG} | | | | | | | | |

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.

RATING AND CHARACTERISTIC CURVES

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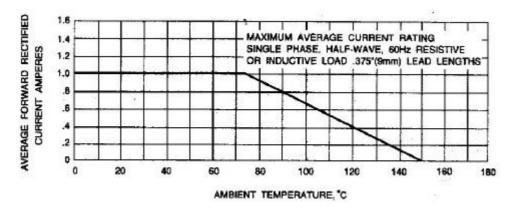
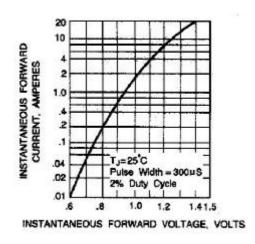


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE



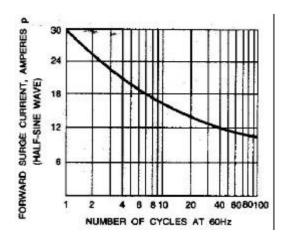
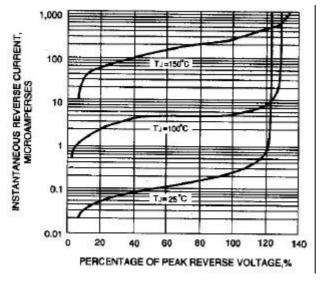


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



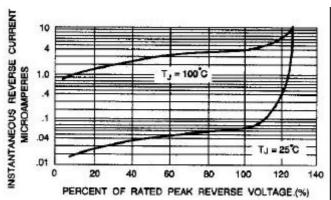


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

Fig. 5-TYPICAL REVERSE CHARACTERISTICS