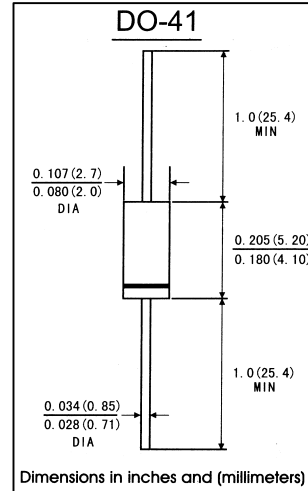


## FEATURES

- . The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- . Construction utilizes void-free molded plastic technique
- . Low reverse leakage
- . High forward surge current capability
- . High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm)lead length,5lbs.(2.3kg).

## MECHANICAL DATA

- . **Case:** JEDEC DO-41 molded plastic body
- . **Terminals:** lead solderable per MIL-STD-750,method 2026
- . **Polarity:** color band denotes cathode end
- . **Mounting Position:** Any
- . **Weight:** 0.012 ounce, 0.33 gram



## 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 by 20%)

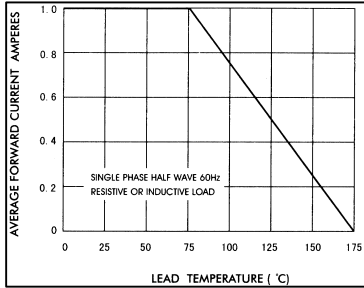
|   | Symbols               | 1N4001      | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | Units |
|---|-----------------------|-------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum reurrent peak reverse voltage   | V <sub>RRM</sub>      | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum RMS voltage   | V <sub>RMS</sub>      | 35          | 70     | 140    | 280    | 420    | 560    | 700    | Volts |
| Maximum DC blocking voltage   | V <sub>DC</sub>       | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum average forward rectified current 0.375"(9.5mm)lead length at T <sub>A</sub> =75°C                    | I <sub>(AV)</sub>     | 1.0         |        |        |        |        |        |        | Amp   |
| Peak forward surge current 8.3ms half sing-wave superimposed on rated load (JEDEC method)T <sub>A</sub> =75°C | I <sub>FSM</sub>      | 30.0        |        |        |        |        |        |        | Amps  |
| Maximum instantaneous forward voltage at 1.0 A  | V <sub>F</sub>        | 1.1         |        |        |        |        |        |        | Volts |
| Maximum reverse current at rated DC blocking voltage  | T <sub>A</sub> =25°C  | 5.0         |        |        |        |        |        |        | μA    |
|   | T <sub>A</sub> =100°C | 50.0        |        |        |        |        |        |        |       |
| Typeical thermal resistance(Note 2)   | R <sub>θ</sub> JA     | 50.0        |        |        |        |        |        |        | °C/W  |
|   | R <sub>θ</sub> JL     | 25.0        |        |        |        |        |        |        |       |
| Typical junction Capacitance(Note 1)  | C <sub>J</sub>        | 15.0        |        |        |        |        |        |        | pF    |
| Maximum DC Blocking Voltage temperature   | T <sub>A</sub>        | +150        |        |        |        |        |        |        | °C    |
| Operating and storage temperature range   | T <sub>J</sub>        | -50 to +175 |        |        |        |        |        |        | °C    |
|   | T <sub>STG</sub>      |             |        |        |        |        |        |        |       |

**Notes:** 1. Measured at 1MHz and applied reverse voltage of 4.0V DC

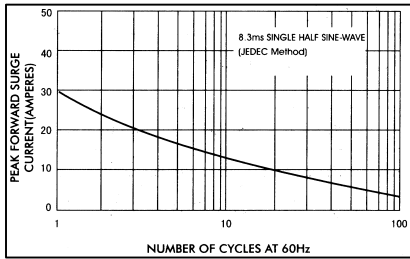
2.Thermal resistance from juntion to ambient and from junction lead at 0.375"(9.5mm)lead length, P.C.B. Mounted

### RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

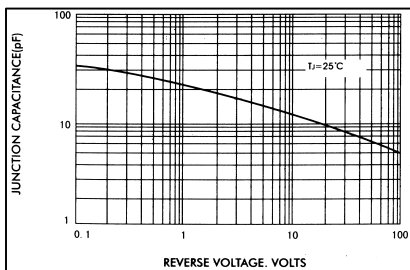
**FIG.1-FORWARD CURRENT DERATING CURVE**



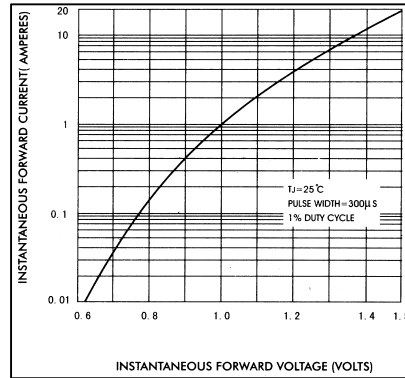
**FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

