

I. General Purpose Rectifier

1.0A Silicon Rectifier

1N4001~1N4007

(Package: DO-41)

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| <p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters 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 /10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : JEDEC DO-41 molded plastic body • Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.26 grams | <p>Case: DO-41 Dimensions in inches and (millimeters)</p> |
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Ratings & Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Characteristic | Symbol | 1N 4001 | 1N 4002 | 1N 4003 | 1N 4004 | 1N 4005 | 1N 4006 | 1N 4007 | Units |
|---------------------------------------------------------------------------------------------------|----------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_a=75$ | I_O | 1.0 | | | | | | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0 A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$ | I_R | 5.0 50.0 | | | | | | | μA |
| Typical junction capacitance (Note 1) | C_j | 15.0 | | | | | | | PF |
| Typical thermal resistance (Note 2) | R_{th-JA} | 50.0 | | | | | | | / W |
| Operating junction and storage temperature range | T_j, T_{stg} | -65 to +175 | | | | | | | |

Note :

1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.

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

Ratings and Characteristic Curves of 1N4001~1N4007

