

UF4001 THRU UF4007 ULTRA FAST RECTIFIERS

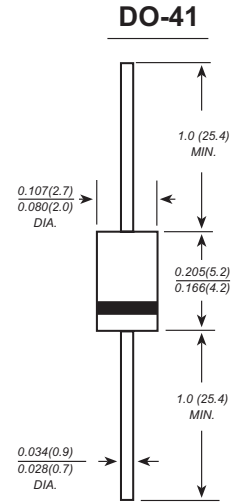
Reverse Voltage - 50 to 1000 Volts Forward Current -1.0 Ampere

FEATURES

The plastic package carries Underwriters Laboratory
 Flammability Classification 94V-0
 Ultra fast switching for high efficiency
 Low reverse leakage
 High forward surge current capability
 High temperature soldering guaranteed:
 250°C/10 seconds, 0.375" (9.5mm) lead length,
 5 lbs. (2.3kg) tension

MECHANICAL DATA

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



Dimensions in inches and (millimeters)

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 current derate by 20%.

| | SYMBOLS | UF 4001 | UF 4002 | UF 4003 | UF 4004 | UF 4005 | UF 4006 | UF 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 $T_A=75^\circ C$ | $I_{(AV)}$ | 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 1.0A | V_F | | 1.0 | | 1.3 | | 1.70 | | Volts |
| Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$ | I_R | | | | 5.0 | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | | 50 | | | | 75 | | ns |
| Typical junction capacitance (NOTE 2) | C_J | | | | 15.0 | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | | | | 50.0 | | | | $^\circ C/W$ |
| Operating junction and storage temperature range | T_J, T_{STG} | | | | -65 to +150 | | | | $^\circ C$ |

Note: 1. Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES UF4001 THRU UF4007

