

Ultra Fast Recovery Rectifier – 1.0Amp 50~1000Volt

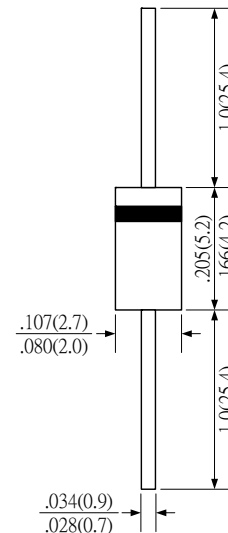
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

Mechanical data

- Case : Molded plastic
- Epoxy : UL 94V-0 rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202,method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.34 grams

DO-41



Maximum ratings and Electrical characteristics

| TYPE | UF4001 | UF4002 | UF4003 | UF4004 | UF4005 | UF4006 | UF4007 | UNIT |
|--|------------|--------|--------|--------|--------|--------|--------|------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | 1.0 | | | | | | | A |
| Peak Forward surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | 30 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 1.1 | | | 1.4 | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | Ta = 25°C | | | | 5.0 | | | µA |
| | Ta = 100°C | | | | 100 | | | |
| Maximum Reverse Recovery Time (Note 1) | 50 | | | 75 | | | | nS |
| Typical Junction Capacitance (Note 2) | 20 | | | 15 | | | | pF |
| Operating Temperature Range | -65 – 125 | | | | | | | °C |
| Storage Temperature Range | -65 – 150 | | | | | | | °C |

Note: 1. Test Conditions : $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = -0.25A$

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2.Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

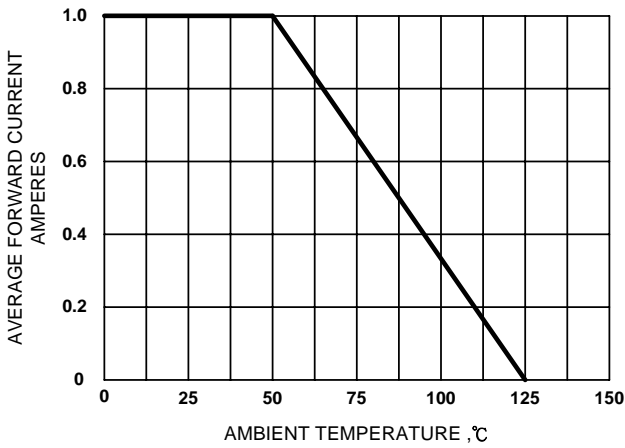


Figure 1. Forward Current Derating Curve

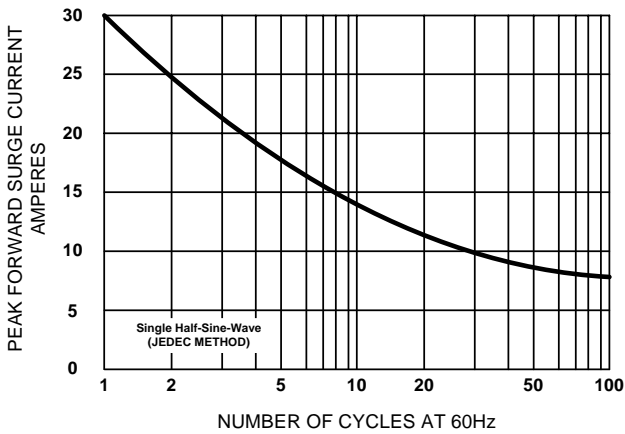


Figure 2. Maximum Non-repetitive Surge Current

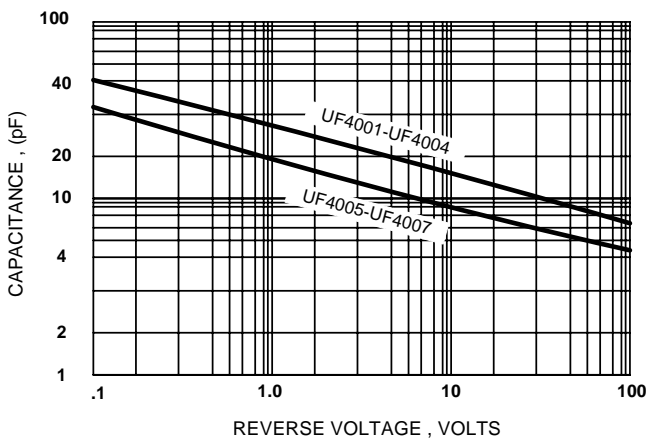


Figure 3. Typical Junction Capacitance

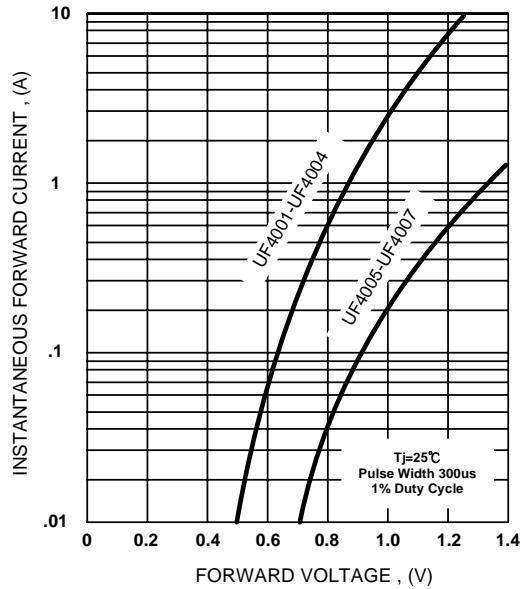


Figure 4. Typical Forward Characteristics

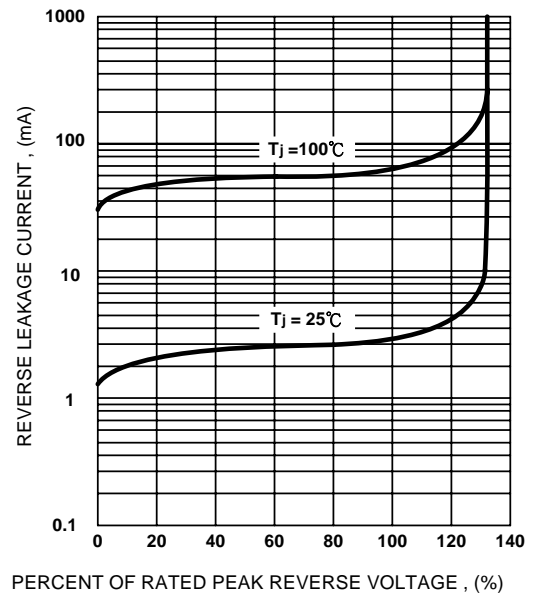


Figure 5. Typical Reverse Characteristics