



DATA SHEET

UF200 thru UF2010

ULTRAFAST SWITCHING RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 2.0 Amperes

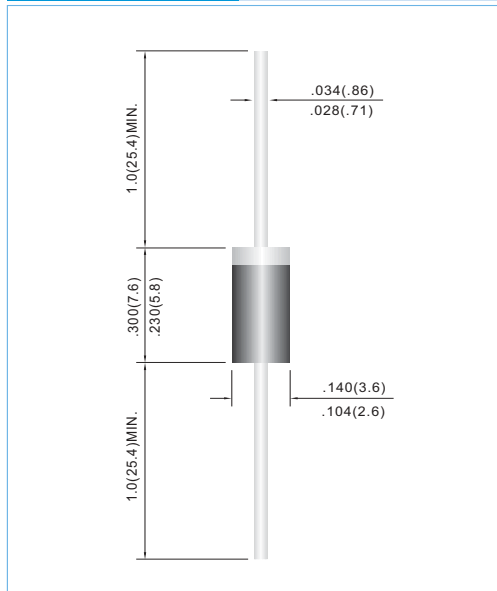
DO-15 Unit: inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast switching for high efficiency.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: Molded plastic, DO-15
Terminals: Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Band denotes cathode
Mounting Position: Any
Weight: 0.015 ounce, 0.4 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER | SYMBOL | UF200 | UF201 | UF202 | UF204 | UF206 | UF208 | UF2010 | UNITS |
|---|-----------------------------------|-------------|-------|-------|-------|-------|-------|--------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current at TA=55°C | I _{AV} | 2.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I _{FSM} | 60 | | | | | | | A |
| Maximum Forward Voltage at 2.0A | V _F | 1.0 | | 1.3 | | 1.7 | | | V |
| Maximum DC Reverse Current at TA=25°C Rated DC Blocking Voltage TA=100°C | I _R | 10.0 100 | | | | | | | uA |
| Typical Junction capacitance (Note 1) | C _J | 35 | | | | | | | pF |
| Typical Thermal Resistance(Note 2) | R _{θJA} | 40 | | | | | | | °C / W |
| Maximum Reverse Recovery Time (Note 3) | T _{RR} | 50 | | | | 75 | | | ns |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 TO +150 | | | | | | | °C |

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted.
3. Reverse Recovery Time I_F=.5A , I_R=1A , I_{rr}=.25A



RATING AND CHARACTERISTIC CURVES

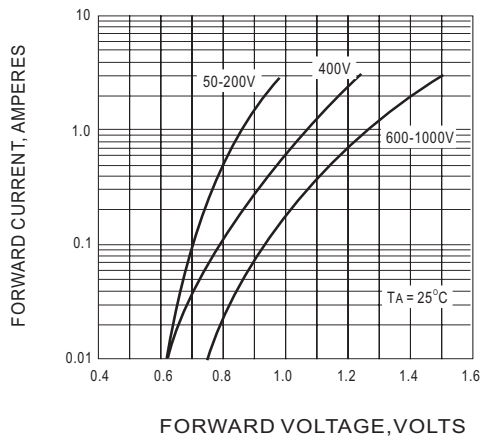


Fig. 1 FORWARD CHARACTERISTICS

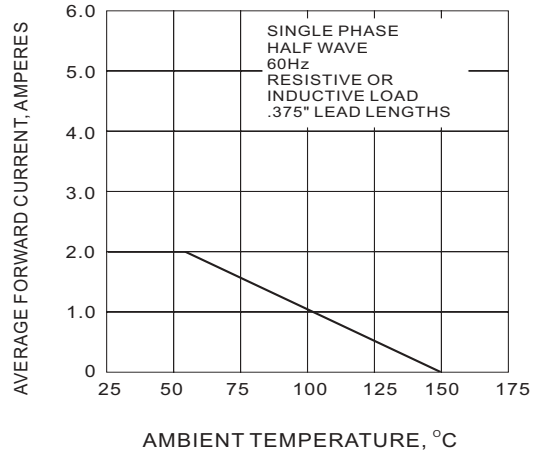


Fig. 2 FORWARD CURRENT DERATING CURVE

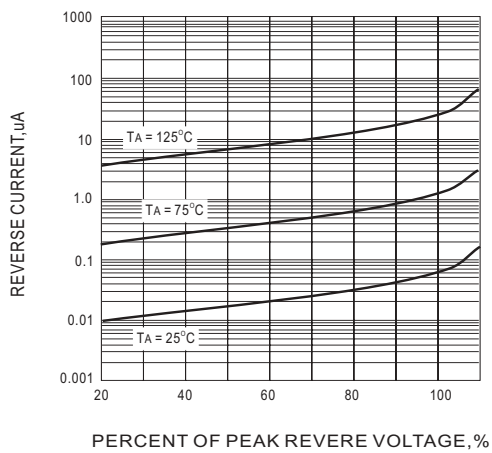


Fig. 3 TYPICAL REVERSE LEAKAGE CHARACTERISTICS

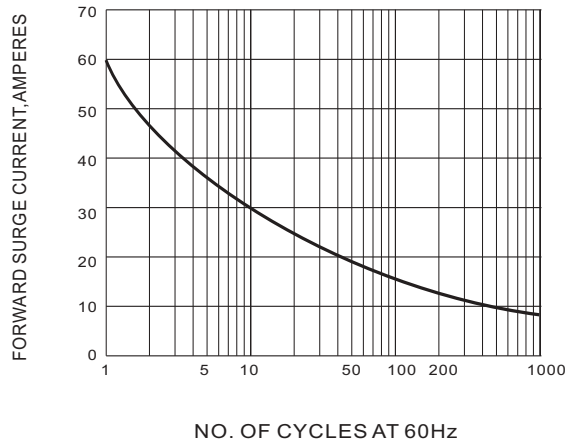


Fig. 4 PEAK FORWARD SURGE CURRENT