



DATA SHEET

UF100 ~ UF1010

ULTRAFAST RECOVERY RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

DO-41

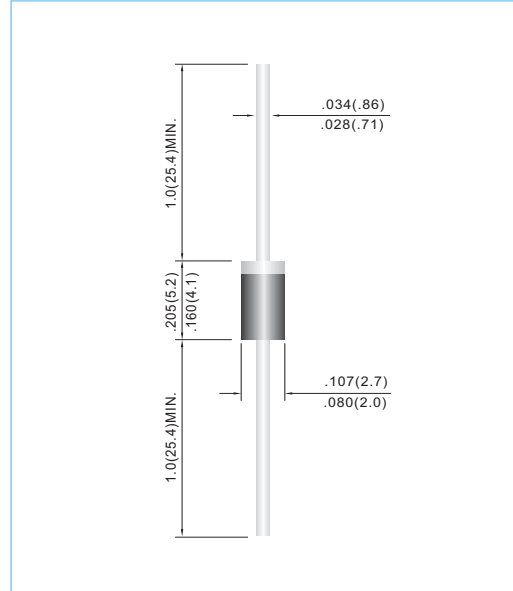
Unit: inch(mm)

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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: Molded plastic, DO-41
 Terminals: Axial leads, solderable per MIL-STD-202G, Method 208
 Polarity: Band denotes cathode
 Mounting Position: Any
 Weight: 0.012 ounce, 336mg



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETER | SYMBOL | UF100 | UF101 | UF102 | UF104 | UF106 | UF108 | UF1010 | 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 .375"(9.5mm) lead length at TA=55°C | I _{AV} | 1.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I _{FSM} | 30 | | | | | | | A |
| Maximum Forward Voltage at 1.0A | V _F | 1.0 | | 1.1 | | 1.7 | | | V |
| Maximum DC Reverse Current at T _J =25°C Rated DC Blocking Voltage T _J =100°C | I _R | | | | 10.0 500 | | | | uA |
| Typical Junction capacitance (Note 1) | C _J | | | | 17 | | | | pF |
| Typical Thermal Resistance(Note 2) | R _{θJA} | | | | 60 | | | | °C / W |
| Maximum Reverse Recovery Time (Note 3) | T _{RR} | 50 | | | 75 | | | | ns |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -50 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

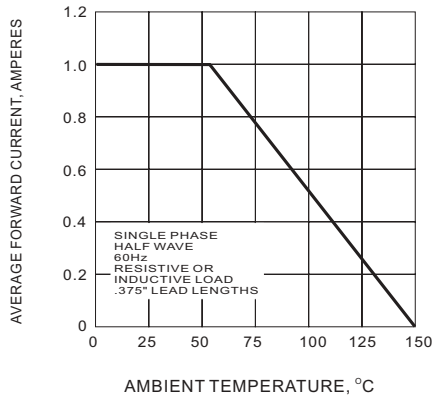


Fig.1 FORWARD CURRENT DERATING CURVE

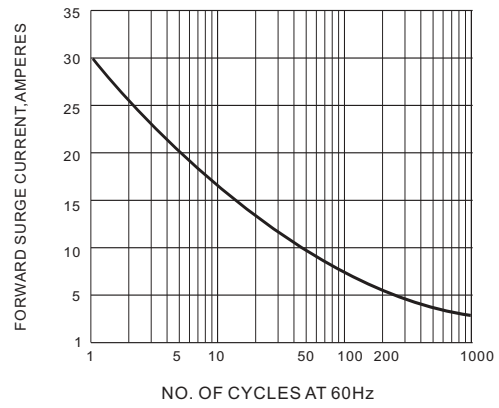


Fig.2 PEAK FORWARD SURGE CURRENT

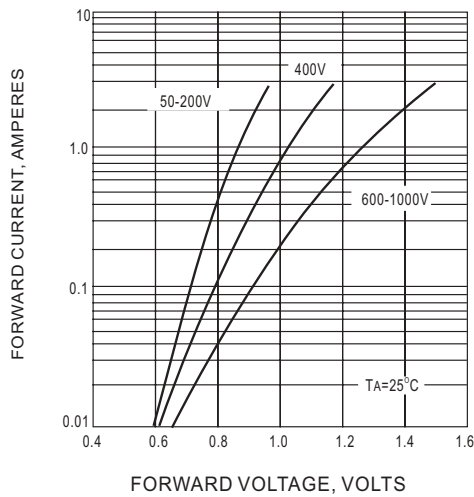


Fig.3 FORWARD CHARACTERISTICS

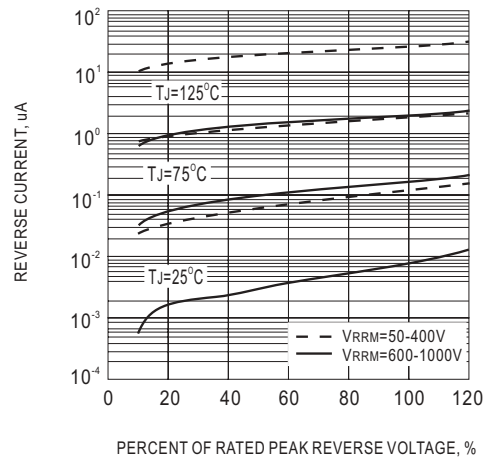


Fig.4 TYPICAL REVERSE CHARACTERISTICS

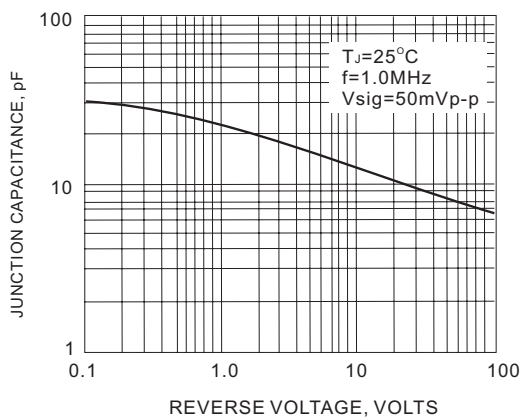


Fig.5 TYPICAL JUNCTION CAPACITANCE