



UF100S ~ UF1010S

ULTRAFAST RECOVERY RECTIFIERS

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

A-405

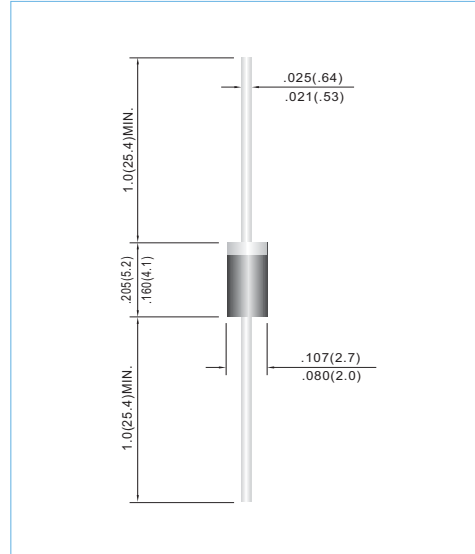
Unit: inch(mm)

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.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded plastic, A-405
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.008 ounce, 0.22 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETER | SYMBOL | UF100S | UF101S | UF102S | UF104S | UF106S | UF108S | UF1010S | 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 $T_A=55^\circ\text{C}$ | $I_{F(AV)}$ | 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 | | 1.3 | | 1.7 | | V | |
| Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100^\circ\text{C}$ | I_R | 5.0 | | | | 500 | | | uA |
| Typical Junction capacitance (Note 1) | C_j | 17 | | | | pF | | | |
| Typical Thermal Resistance(Note 2) | $R_{\theta JA}$ | 60 | | | | °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 $I_F=.5A$, $I_R=1A$, $I_{rr}=.25A$



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RATING AND CHARACTERISTIC CURVES

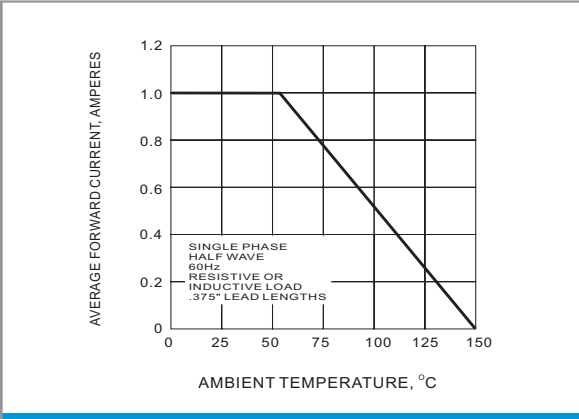


Fig.1 FORWARD CURRENT DERATING CURVE

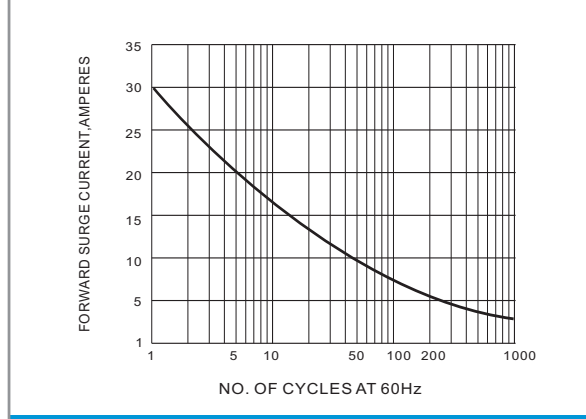


Fig.2 PEAK FORWARD SURGE CURRENT

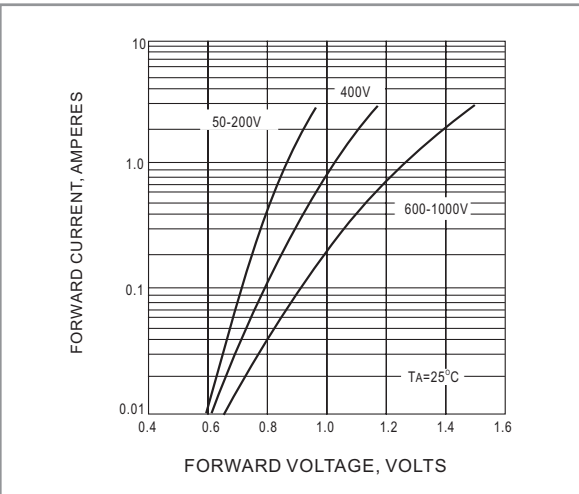


Fig.3 FORWARD CHARACTERISTICS

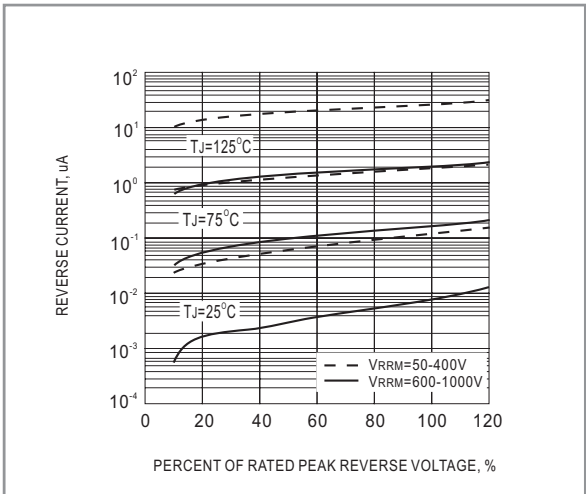


Fig.4 TYPICAL REVERSE CHARACTERISTICS

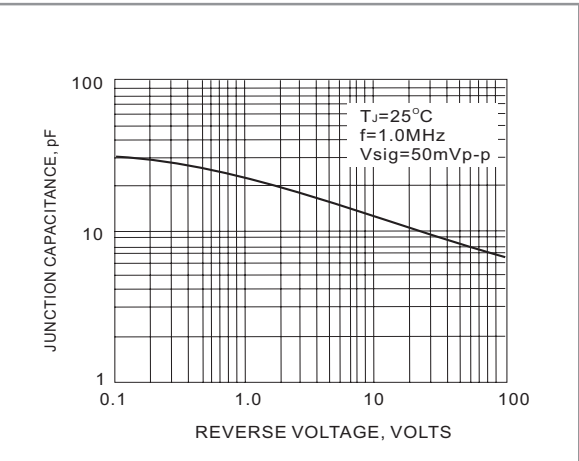


Fig.5 TYPICAL JUNCTION CAPACITANCE