



DATA SHEET

UF800F~UF808F

ISOLATION ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 800 Volts **CURRENT** 8.0 Amperes

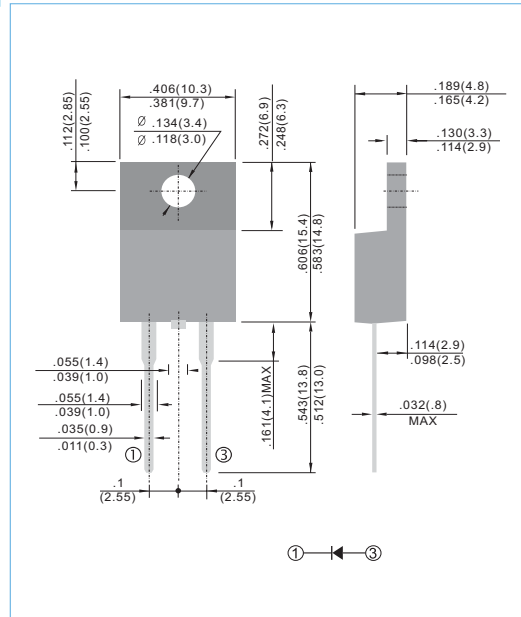
ITO-220AC Unit : inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Ultra fast recovery times, high voltage.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: ITO-220AC full molded plastic package
 Terminals: Lead solderable per MIL-STD-202G, Method 208
 Polarity: As marked.
 Standard packaging: Any
 Weight: 0.08 ounces, 2.24grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | UF800F | UF801F | UF802F | UF803F | UF804F | UF806F | UF808F | UNITS |
|--|-----------------|-------------|--------|--------|--------|--------|--------|--------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | V |
| Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$ | I_{AV} | 8.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 125 | | | | | | | A |
| Maximum Forward Voltage at 8.0A | V_F | 1.0 | | 1.3 | | 1.7 | | V | |
| Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$ | I_R | 10 500 | | | | | | | μA |
| Maximum Thermal Resistance (Note 2) | $R_{\theta JC}$ | 5 | | | | | | | $^\circ\text{C} / \text{W}$ |
| Typical Junction Capacitance | C_J | 80 | | | | | 50 | | pF |
| Maximum Reverse Recovery Time (Note 1) | T_{RR} | 50 | | | | | 100 | | ns |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -50 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Reverse Recovery Test Conditions: $I_F = .5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = .25\text{A}$.
2. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.



RATING AND CHARACTERISTIC CURVES

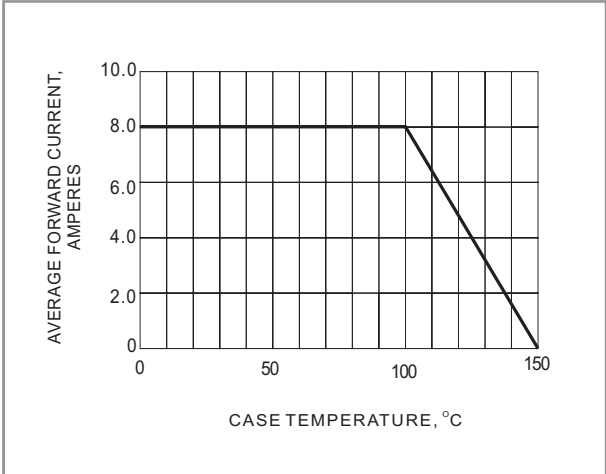


Fig.1 FORWARD CURRENT DERATING CURVE

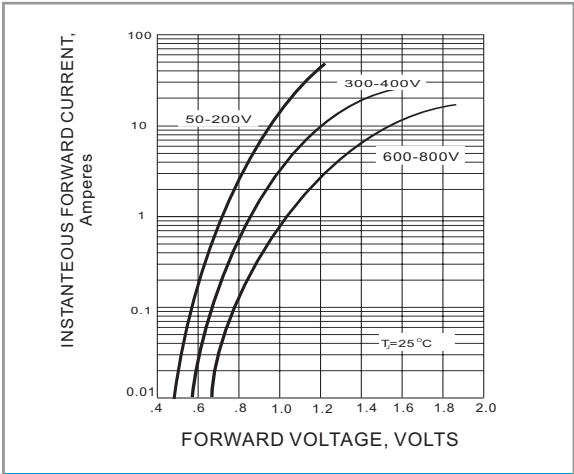


Fig.2 FORWARD CHARACTERISTICS

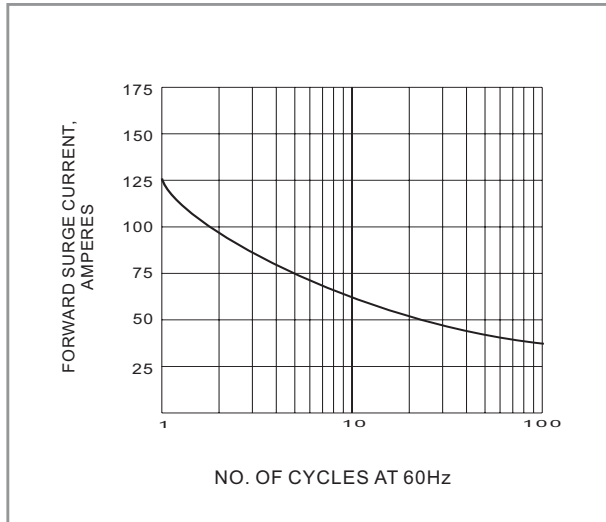


Fig.3 PEAK FORWARD SURGE CURRENT

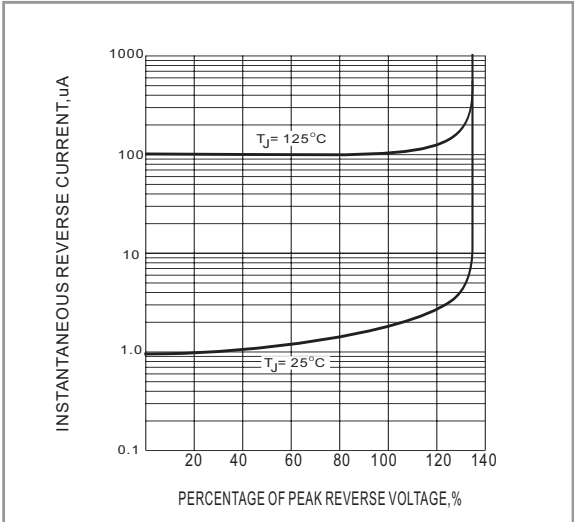


Fig.4 TYPICAL REVERSE CHARACTERISTICS