PANJIT SEMI CONDUCTOR

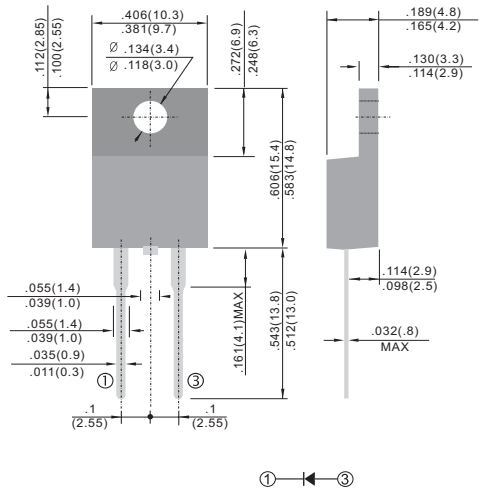
# DATA SHEET

## UF800F~UF808F

### ISOLATION ULTRAFAST RECOCVEY 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 forwrd voltge, 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

### MECHANCALDATA

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 Tc =100°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°C<br>at Rated DC Blocking Voltage $T_A$=125°C | $I_R$ | 10<br>500 | | | | | | | uA |
| Maximum Thermal Resistance (Note 2) | RθJC | 5 | | | | | | | °C / 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 | | | | | | | °C |

NOTES:

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

## RATING AND CHARACTERISTIC CURVES

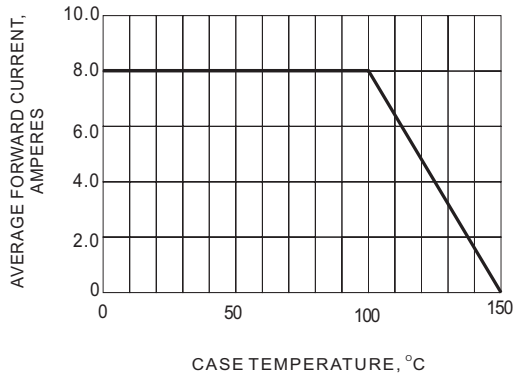



Fig.1 FORWARD CURRENT DERATING CURVE

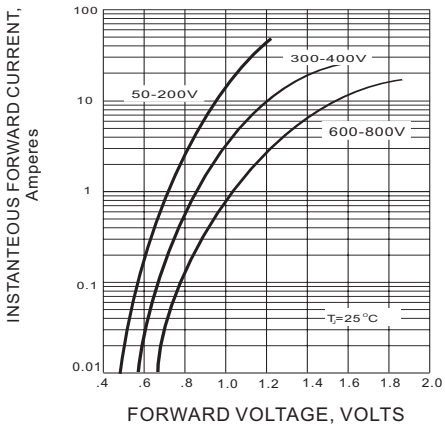



Fig.2 FORWARD CHARACTERISTICS

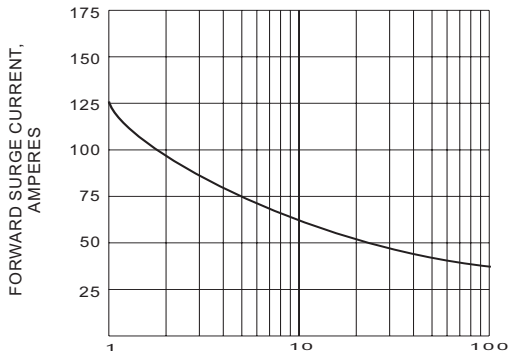



Fig.3 PEAK FORWARD SURGE CURRENT

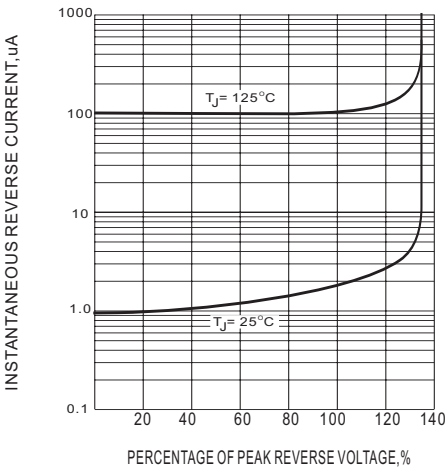



Fig.4 TYPICAL REVERSE CHARACTERISTICS