

# UF800F THRU UF808F

## ISOLATION ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 8.0 Amperes

### 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

### MECHANICAL DATA

Case: ITO-220AC full molded plastic package

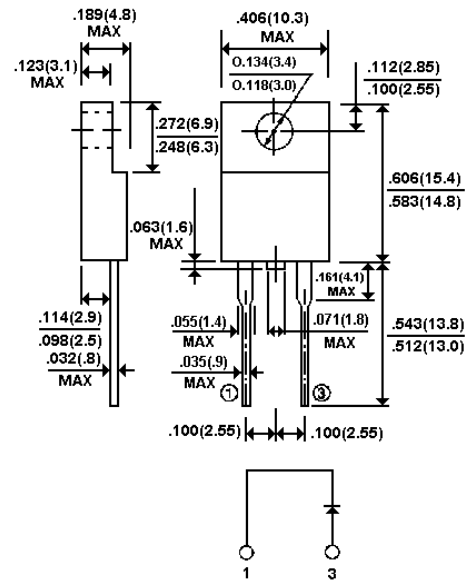
Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounce, 2.24 gram

### ITO-220AC



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

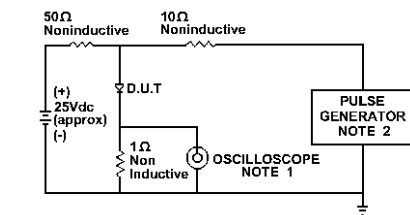
For capacitive load, derate current by 20%

TYPE NUMBER	UF800F	UF801F	UF802F	UF803F	UF804F	UF806F	UF808F	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	V
Maximum RMS Voltage	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length @ T <sub>C</sub> =100 ℃	8.0							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 8.0A	1.0			1.3		1.7		V
Maximum DC Reverse Current @T <sub>A</sub> =25 ℃	10.0							ℳg A
at Rated DC Blocking Voltage @T <sub>A</sub> =125 ℃	500							ℳg A
Maximum Reverse Recovery Time(Note 1)	50					100		ns
Typical Junction capacitance (Note 2)	80					50		pF
Typical Junction Resistance (Note 2) R ℳKJA	15							℃/W
Operating and Storage Temperature Range T <sub>J</sub> ,T <sub>STG</sub>	-50 to +150							℃

### NOTES:

1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

## RATING AND CHARACTERISTIC CURVES UF800F THRU UF808F



NOTE:1.Rise Time = 7ns max.  
Input Impedance = 1 megohm. 22pF  
2.Rise Time = 10ns max.  
Source Impedance = 50 Ohms

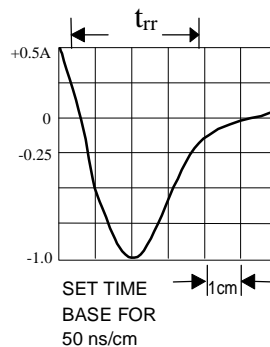


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

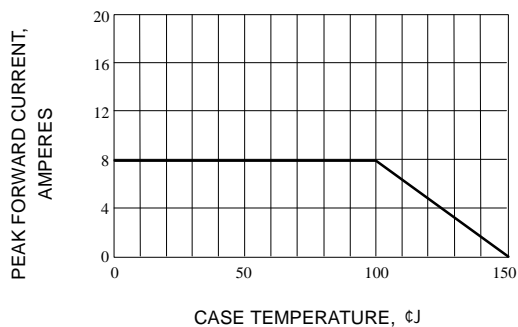


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE

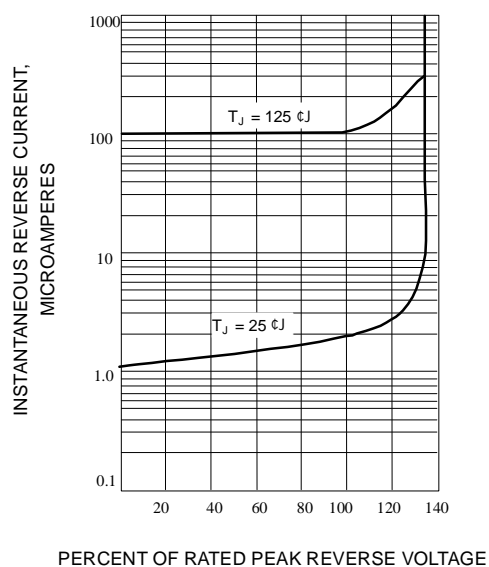


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

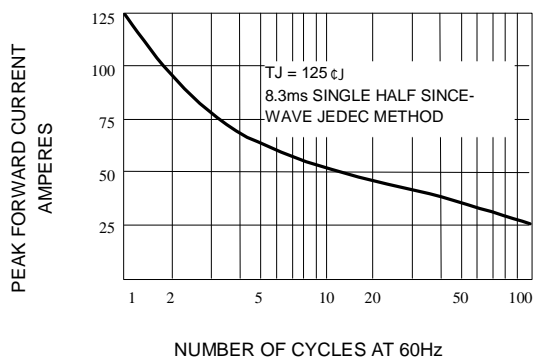


Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

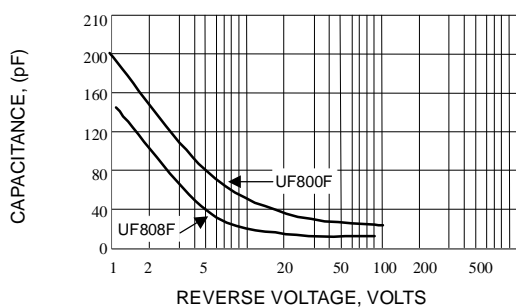


Fig. 4-TYPICAL JUNCTION CAPACITANCE

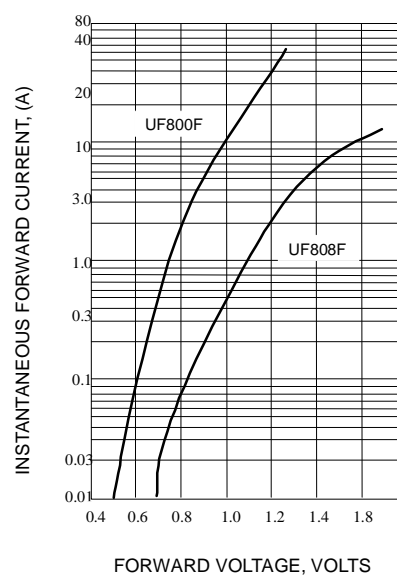


Fig. 5-PEAK FORWARD SURGE CURRENT