

## 8.0 A HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE 50 TO 800 VOLTS CURRENT  
8.0 Amperes

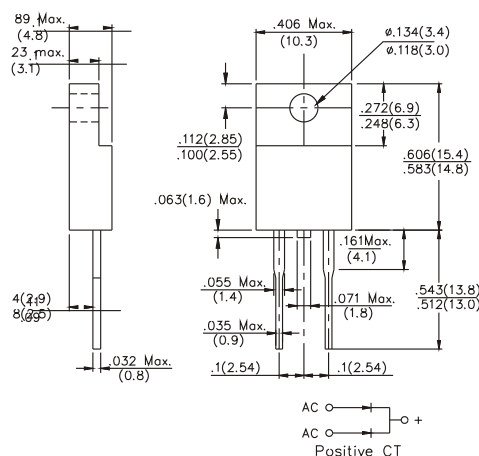
## FEATURES

- 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.

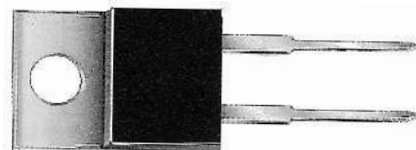
## MECHANICAL DATA

- 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 ounces, 2.24 grams.

## 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, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| TYPY 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<br>.375"(9.5mm) lead length @ Tc=100°C                         | 8.0         |        |        |        |        |        |        | A      |
| Peak Forward Surge Current,<br>8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 125         |        |        |        |        |        |        | A      |
| Maximum Instantaneous Forward Voltage at 8.0A                                                            | 1.0         |        | 1.3    |        | 1.7    |        |        | V      |
| Maximum D.C Reverse Current @ TA= 25°C                                                                   | 10          |        |        |        |        |        |        | μ A    |
| at Rated D.C Blocking Voltage @ TA=125°C                                                                 | 500         |        |        |        |        |        |        | μ A    |
| Maximum Reverse Recovery Time (Note 1)                                                                   | 50          |        |        |        | 100    |        |        | Ns     |
| Typical Junction Capacitance (Note 2)                                                                    | 80          |        |        |        | 50     |        |        | pF     |
| Typical Junction Resistance (Note 3) Rθ JA                                                               | 15          |        |        |        |        |        |        | °C / W |
| Operating and Storage Temperature Range Tj, TSTG                                                         | -50 to +150 |        |        |        |        |        |        | °C     |

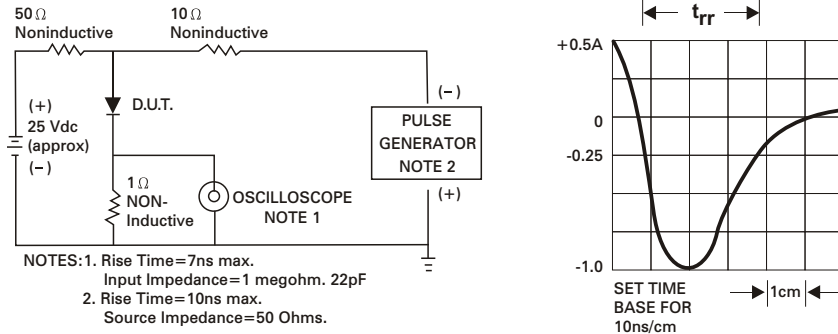
Notes : 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

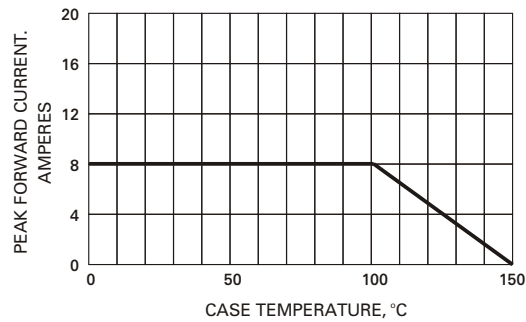
3. Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. Mounted.

**RATING AND CHARACTERISTICS CURVES**

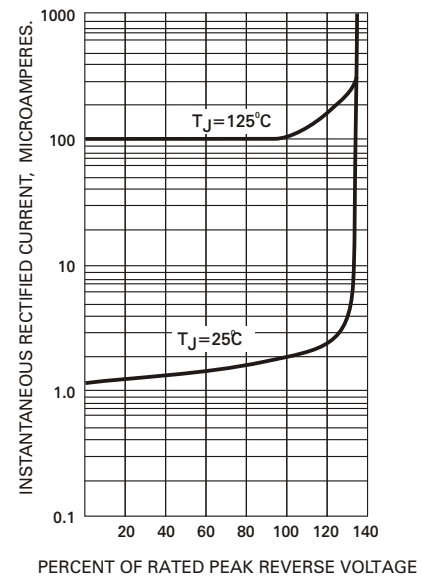
**Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



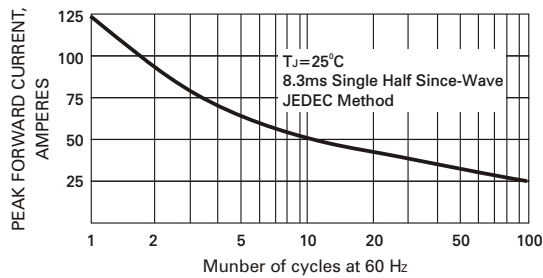
**Fig. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



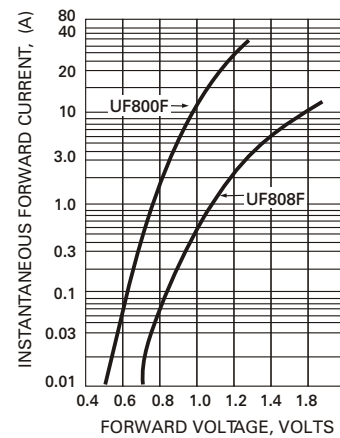
**Fig. 2 - TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**Fig. 5 - TYPICAL FORWARD CHARACTERISTICS**



**Fig. 4 - TYPICAL JUNCTION CAPACITANCE**

