



# UF800F~UF806F

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 600 Volts **CURRENT** 8.0 Amperes

**ITO-220AC**

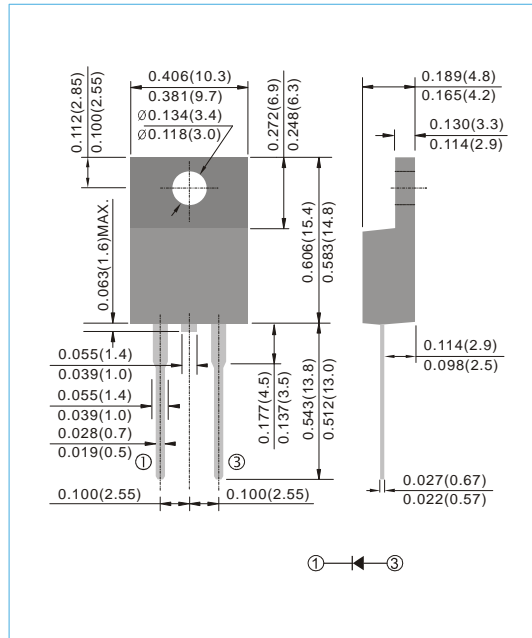
Unit : inch(mm)

### 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
- Glass passivation junction
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: ITO-220AC full molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.055 ounces, 1.5615 grams.



### 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	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	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 $T_A=125^\circ\text{C}$	$I_R$	1.0			500			$\mu\text{A}$
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	$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$

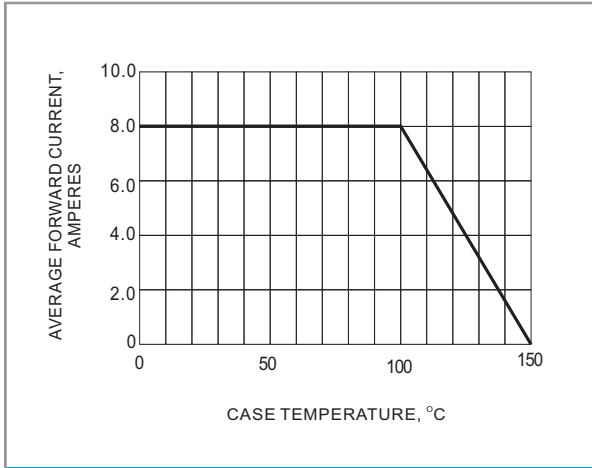
#### NOTES:

1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .
2. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.

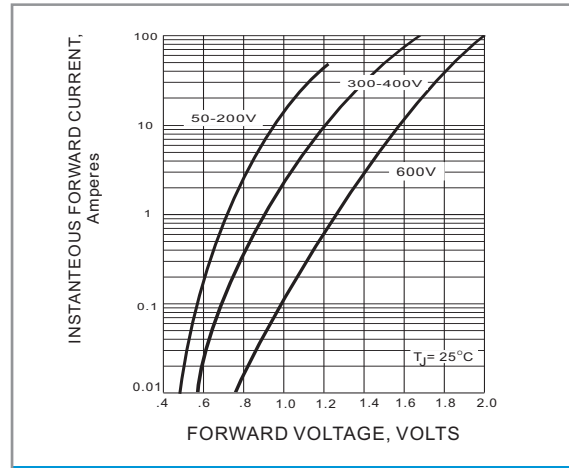


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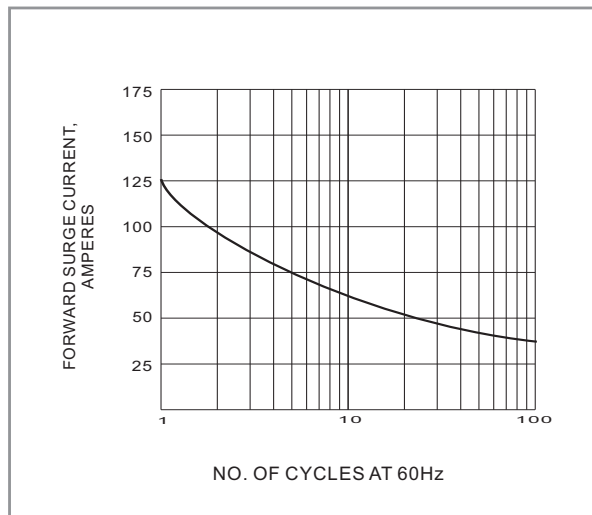
## RATING AND CHARACTERISTIC CURVES



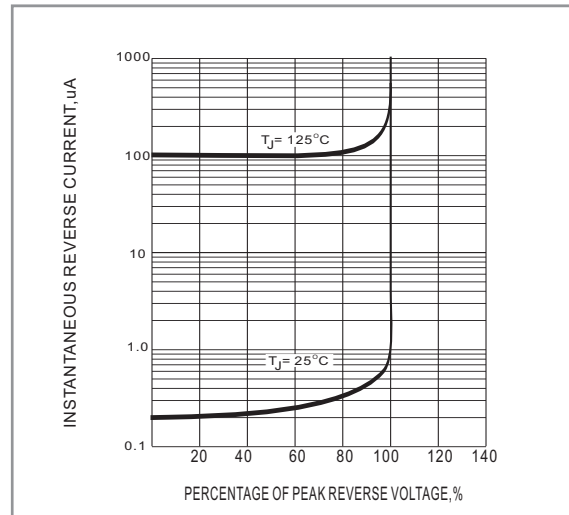
**Fig.1 FORWARD CURRENT DERATING CURVE**



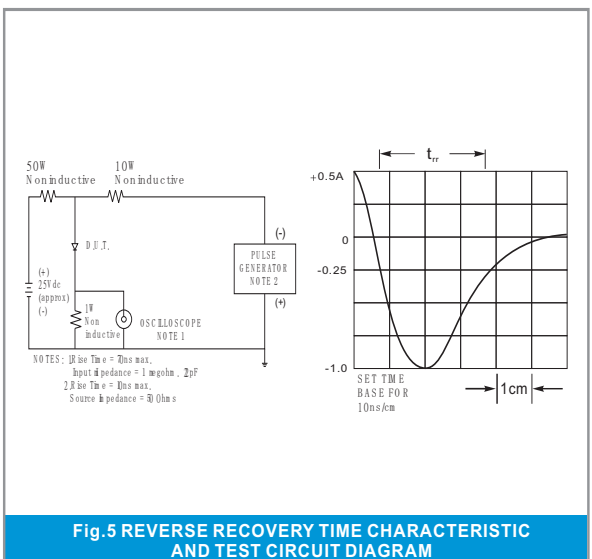
**Fig.2 FORWARD CHARACTERISTICS**



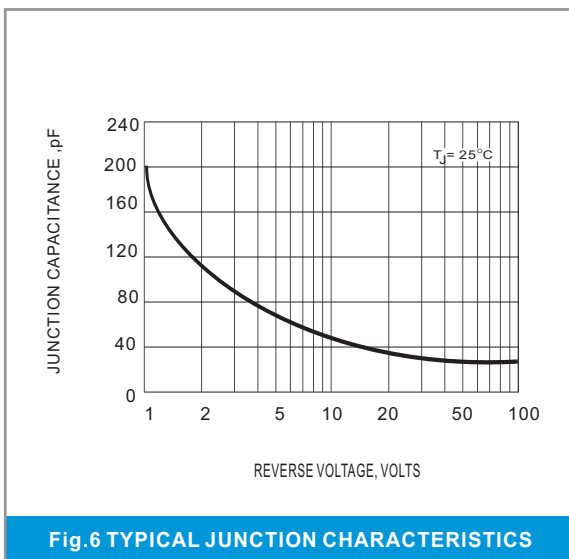
**Fig.3 PEAK FORWARD SURGE CURRENT**



**Fig.4 TYPICAL REVERSE CHARACTERISTICS**



**Fig.5 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



**Fig.6 TYPICAL JUNCTION CHARACTERISTICS**