



# DATA SHEET

## UF800~UF808

### ULTRAFast RECOVERY RECTIFIERS

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

TO-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.

#### MECHANICAL DATA

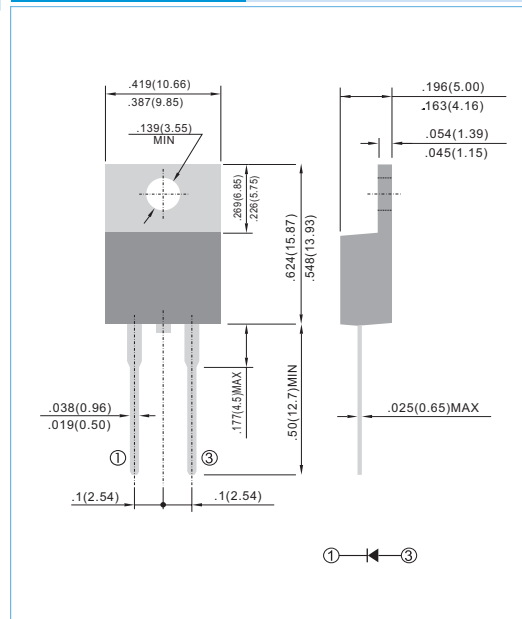
Case: TO-220AC full molded plastic package

Terminals: Lead solderable per MIL-STD-202, 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%

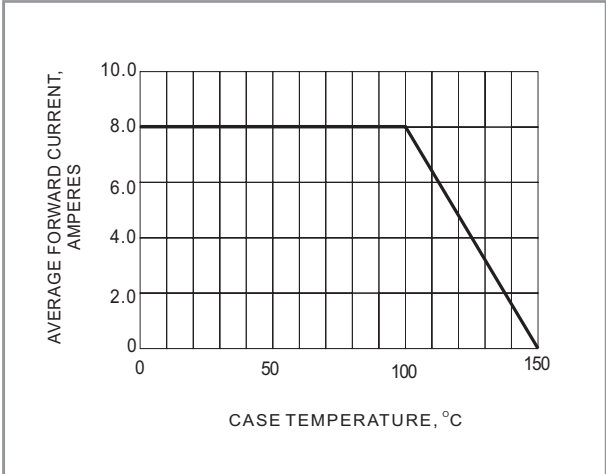
PARAMETER	SYMBOL	UF800	UF801	UF802	UF803	UF804	UF806	UF808	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified 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			$\mu\text{A}$
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	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

#### NOTES:

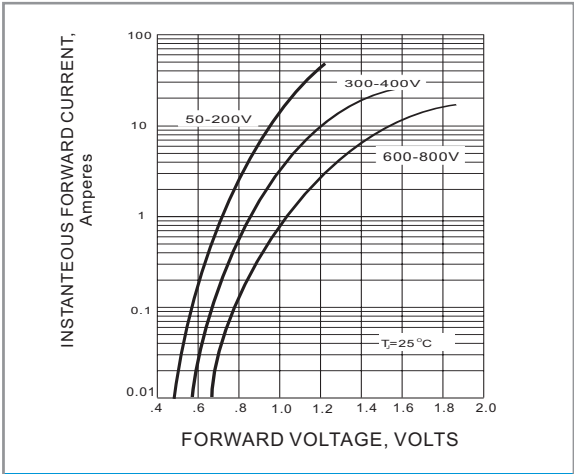
1. Reverse Recovery Test Conditions:  $I_F = .5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{rr} = .25\text{A}$ .
2. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.



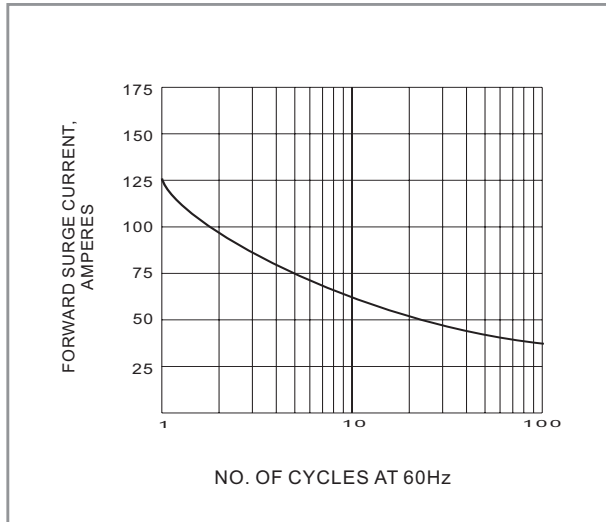
**RATING AND CHARACTERISTIC CURVES**



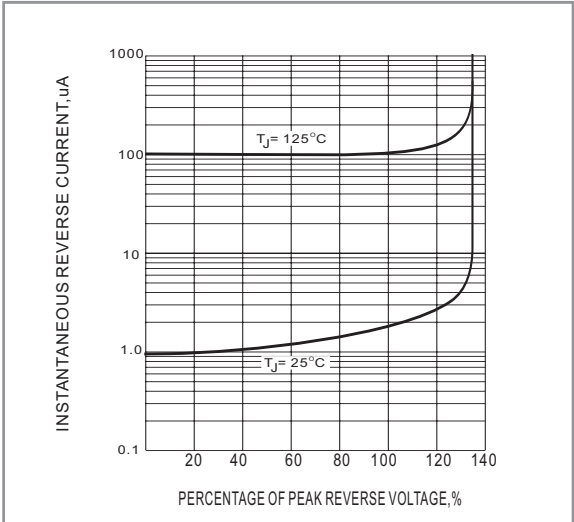
**Fig.1 FORWARD CURRENT DERATING CURVE**



**Fig.2 FORWARD CHARACTERISTICS**



**Fig.3 PEAK FORWARD SURGE CURRENT**



**Fig.4 TYPICAL REVERSE CHARACTERISTICS**