



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

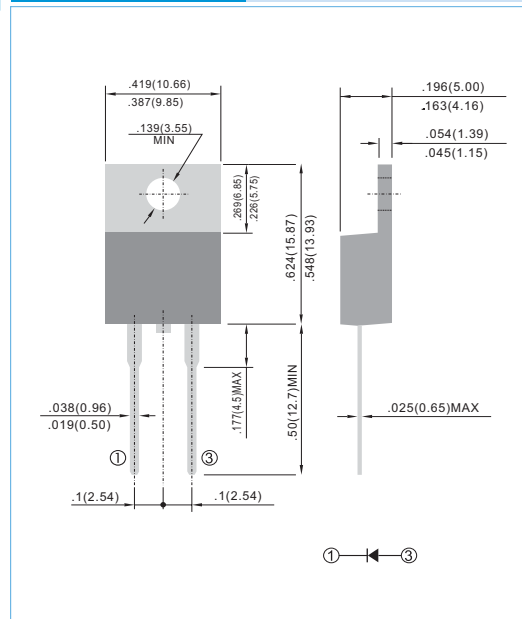
Case: TO-220AC full molded plastic package

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							μA
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

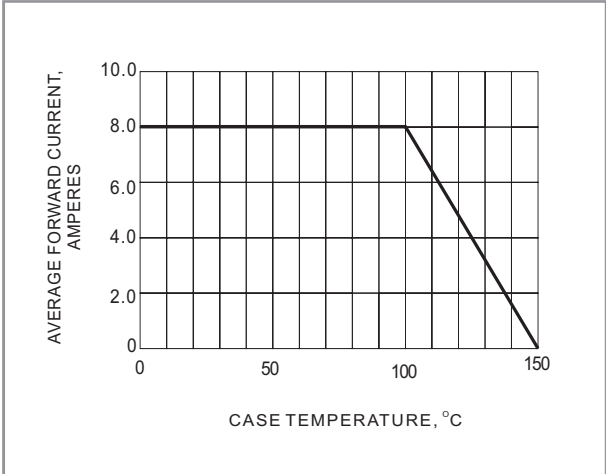


Fig.1 FORWARD CURRENT DERATING CURVE

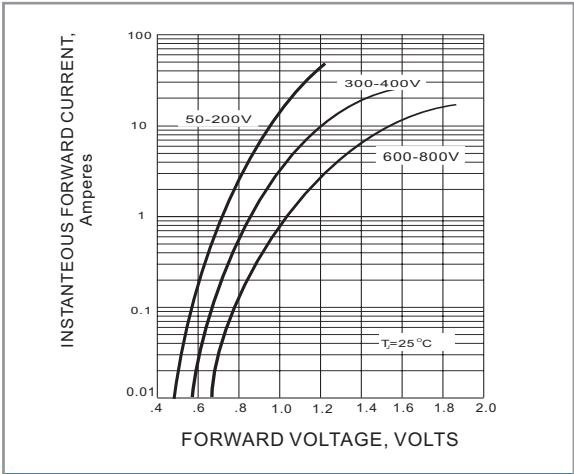


Fig.2 FORWARD CHARACTERISTICS

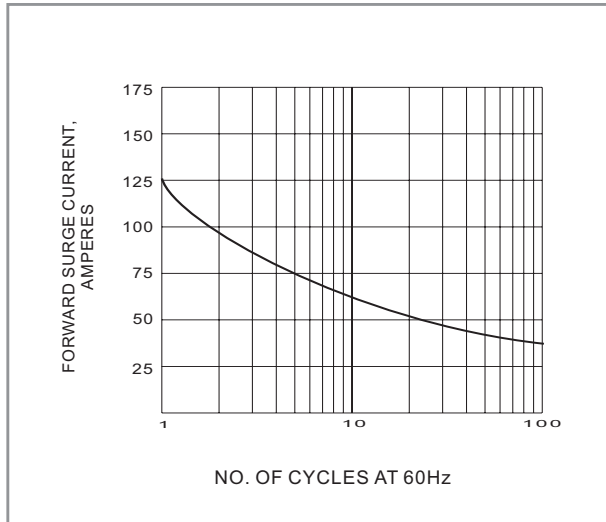


Fig.3 PEAK FORWARD SURGE CURRENT

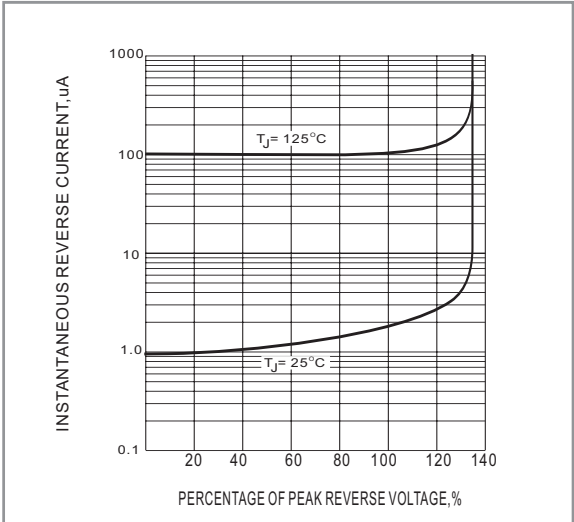


Fig.4 TYPICAL REVERSE CHARACTERISTICS