



# DATA SHEET

SEMICONDUCTOR

**UF800F~UF8010F**

## ULTRAFAST SWITCHING RECTIFIERS

**VOLTAGE- 50 to 1000 Volts CURRENT - 8.0 Ampere**

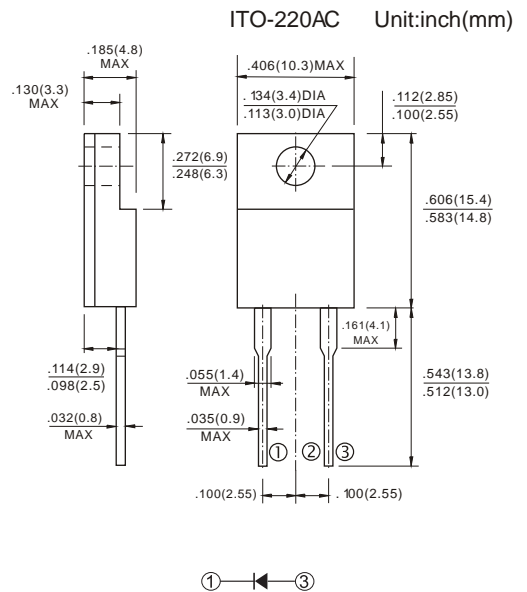


### FEATURES

- 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.
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: ITO-220AC full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.08 ounces, 2.26grams.



### 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%

	UF800F	UF801F	UF802F	UF803F	UF804F	UF806F	UF808F	UF8010F	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc=100°C	8.0								A
Peak Forward Surge Current , 8.3 ms single half sine-wave super imposed on rated load (JEDEC method)	125								A
Maximum Instantaneous Forward Voltage at 8.0A per element	1.0			1.30		1.50	1.70		V
Maximum DC Reverse Current (Note 1) Ta=25°C at Rated DC Blocking Voltage Ta=125°C	10				500				µA
Typical Junction Capacitance (Note 1)	80					50			pF
Maximum Reverse Recovery Time (Note 2)	50					75			ns
Typical Thermal Resistance Note RθJC	15								°C/W
Operating and Storage Temperature Range Tj	-55 to +150								°C

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: IF=.5A, IR=1A, Irr=.25A.
3. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.

# RATING AND CHARACTERISTIC CURVES

## UF800F~UF8010F

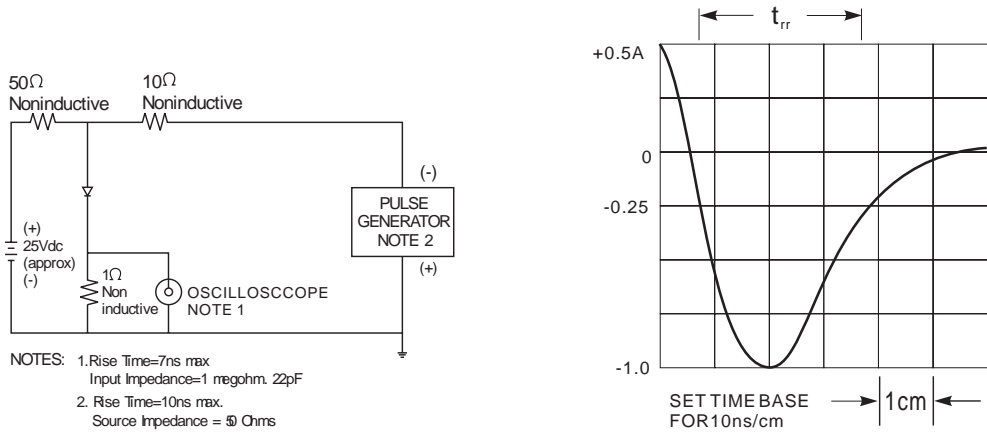


Fig.1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

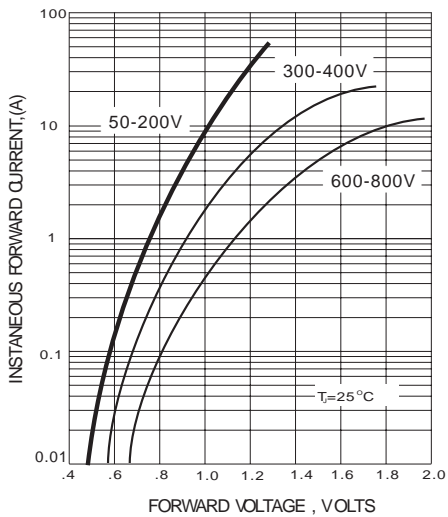


Fig.2- FORWARD CHARACTERISTICS

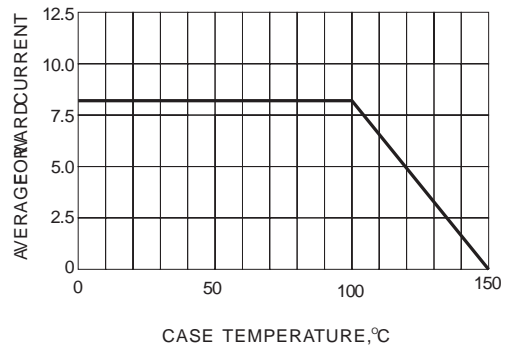


Fig.3- FORWARD CURRENT DERATING CURVE

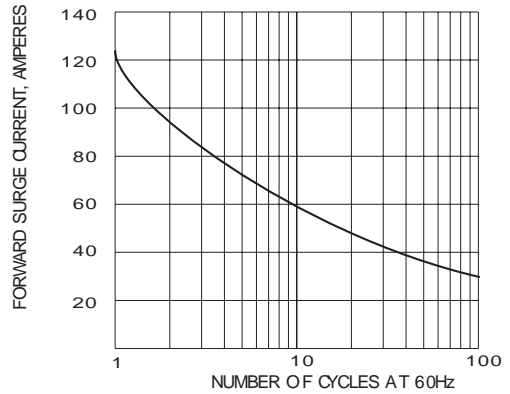


Fig.4- PEAK FORWARD SURGE CURRENT

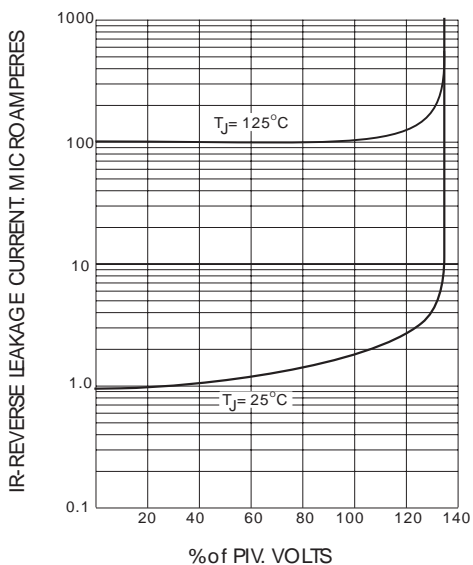


Fig.5- TYPICAL REVERSE CHARACTERISTICS

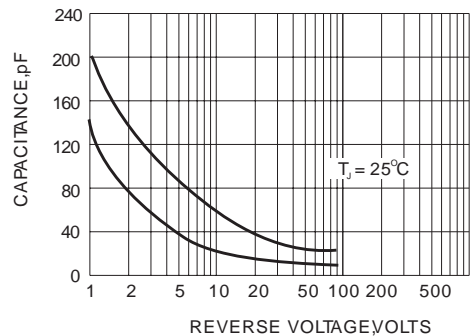


Fig.6- TYPICAL JUNCTION CAPACITANCE