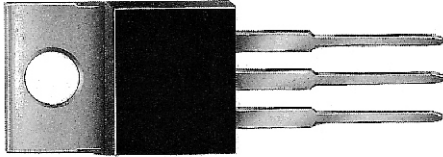


# UF1600F thru UF1608F

## ISOLATION ULTRAFAST SWITCHING RECTIFIERS



**CHENG-YI  
ELECTRONIC**



### FEATURES

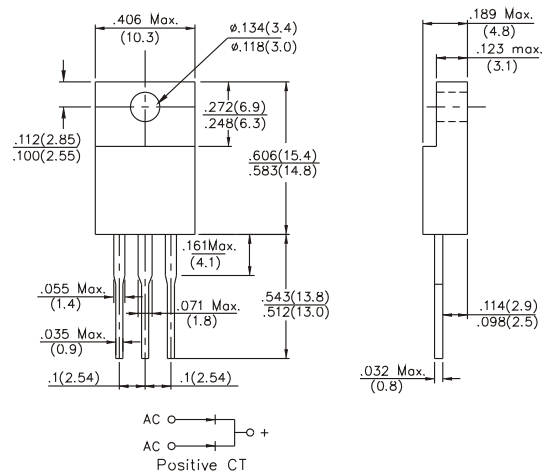
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228.
- Low power loss, high efficiency.
- Low forward voltage, high current capability.
- High surge capacity.
- Ultra fast recovery times, high voltage.

### MECHANICAL DATA

- Case: ITO-220AB 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.

VOLTAGE RANGE  
-50 TO 800 VOLTS  
CURRENT  
-16.0 Amperes

### ITO-220AB



### 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	UF1600F	UF1601F	UF1602F	UF1603F	UF1604F	UF1606F	UF1608F	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 .375"(9.5mm) lead length @ T <sub>c</sub> =100°C	16							A
Peak Forward Surge Current, 8.3 ms single half sine-wave 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 @ T <sub>A</sub> = 25°C at Rated D.C Blocking Voltage @ T <sub>A</sub> =125°C				10				μA
				500				μA
Maximum Reverse Recovery Time (Note 1)	50				100			Ns
Typical Junction Capacitance (Note 2)	170				130			pF
Typical Junction Resistance (Note 3) R <sub>θ</sub> JA	30							°C / W
Operating and Storage Temperature Range T <sub>j</sub> , T <sub>STG</sub>	-50 to +150							°C

Notes : 1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=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.

# UF1600F thru UF1608F

## ISOLATION ULTRAFAST SWITCHING RECTIFIERS



### RATING AND CHARACTERISTICS CURVES UF1600F THRU UF1608F

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

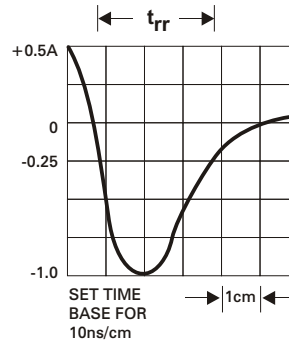
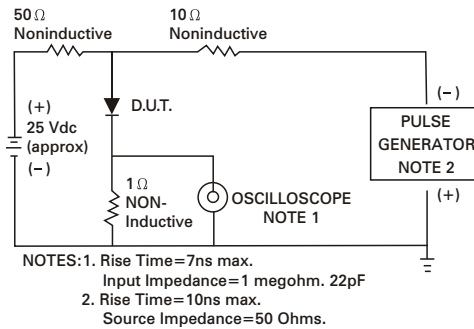


Fig. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

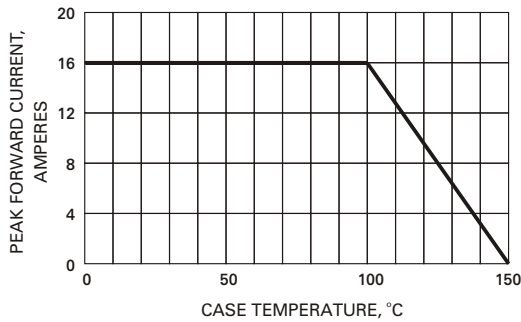


Fig. 2 - TYPICAL REVERSE CHARACTERISTICS

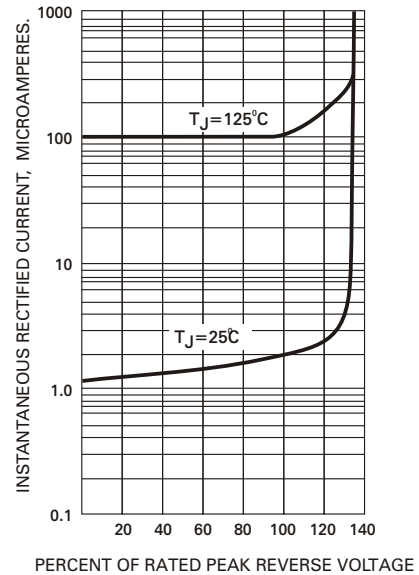


Fig. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

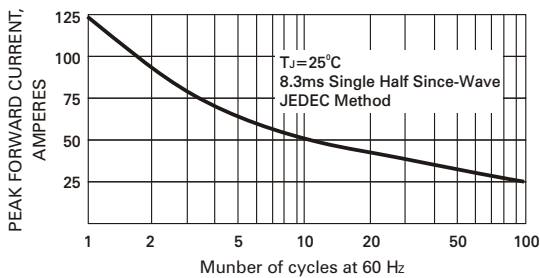


Fig. 5 - TYPICAL FORWARD CHARACTERISTICS

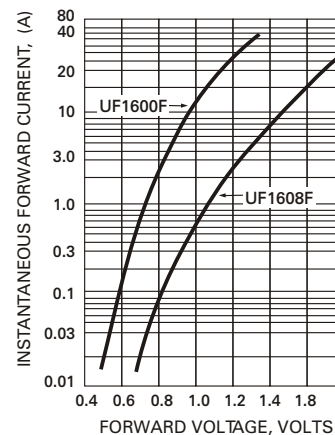


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

