

**VOLTAGE RANGE: 100 - 1000V**

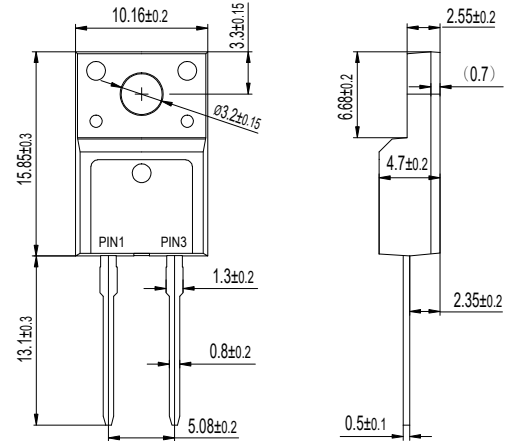
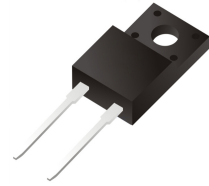
**CURRENT: 8.0A**

### Features

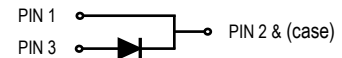
- Glass passivated chip junctions
- Low reverse current operation
- High Junction Temperature
- Fast recovery time for switching
- High Forward Surge Capability
- Lead free in compliance with EU RoHS 2011/65/EU directive

### Mechanical Data

- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: ITO-220AC 1.65 grams



ITO-220AC



### Maximum Ratings And Electrical Characteristics $T_A = 25^\circ\text{C}$

RATINGS	SYMBOL	FR 801F	FR 802F	FR 804F	FR 806F	FR 808F	FR 810F	UNIT
Maximum repetitive reverse voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Maximum average forward current	I <sub>AV</sub>	8						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100						A
Typical thermal resistance per diode (Note 1)	R <sub>θ-JC</sub>	4.0						°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150						°C
Storage temperature range	T <sub>STG</sub>	-55 to +150						°C
Maximum forward voltage per leg at 8A	V <sub>F</sub>	1.30						V
Maximum average reverse current at rated DC blocking voltage	I <sub>R</sub>	10 250						μA
Maximum reverse recovery time (Note 2)	T <sub>RR</sub>	150		250		500		nS

Notes: 1. Thermal resistance from junction to case.  
2. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

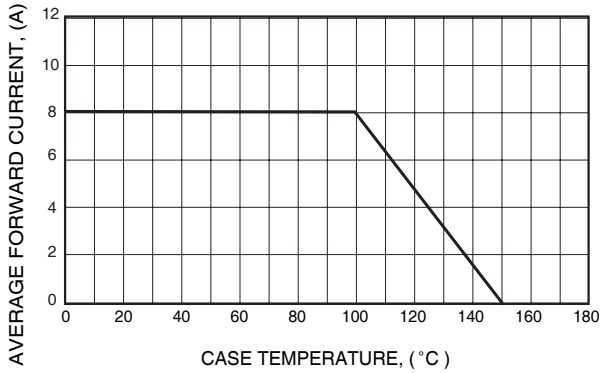


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

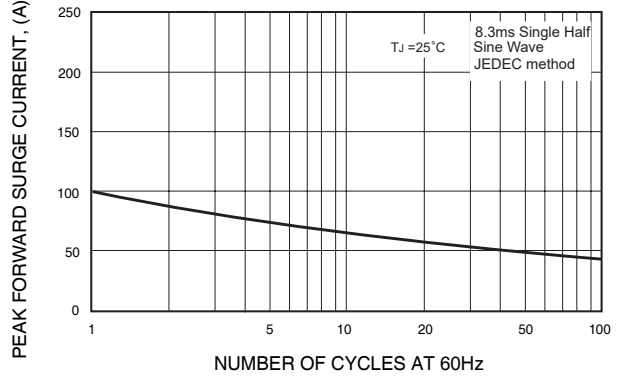


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

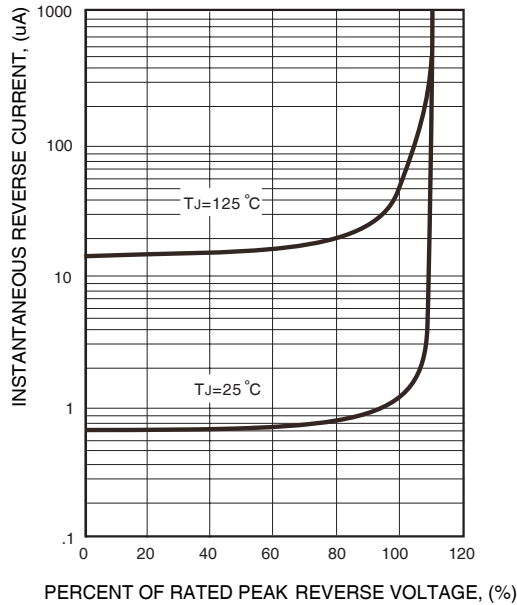


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

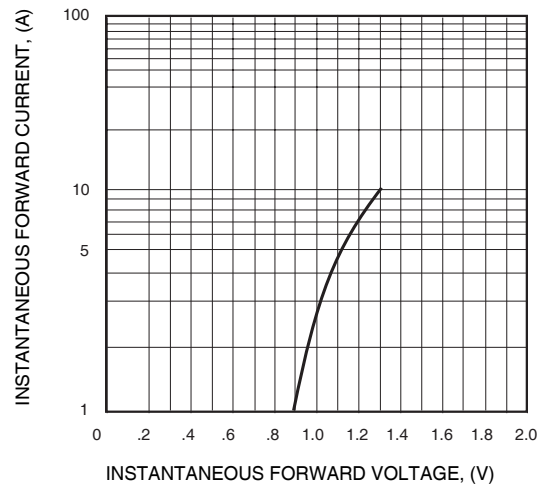
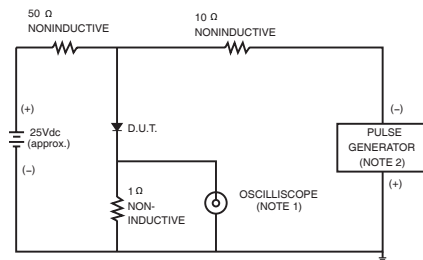


FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

