



**SUPERFAST RECTIFIER DATA SHEET**

**FEATURES**

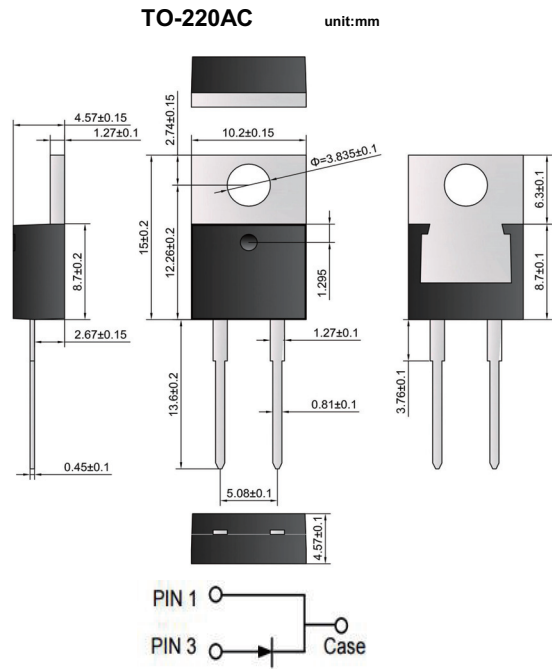
- Fred Chip Construction
- SuperFast Switching,High Efficiency
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0

**MECHANICAL DATA**

- Case: TO-220AC Type, Molded Plastic
- Terminals:Pure tin Plated ,Lead Free Solderable Per MIL-STD-202, Method 208
- Polarity: As marked
- Weight: 1.9 grams(approx)
- Mounting Position:Any

**TYPICAL APPLICATIONS**

- For use in High Frequency Rectifier of Switching Mode Power Supplies, Freewheeling Diode, DC/DC Converters or polarity Protection Application



**Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	UF 801	UF 802	UF 803	UF 804	UF 805	UF 806	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	200	300	400	500	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	210	280	350	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	8						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	80						A
Maximum Forward Voltage at 8A	V <sub>F</sub>	0.95		1.3		1.5		V
Maximum Reverse Recovery Time (Note.1)	T <sub>RR</sub>	35						ns
Maximum DC Reverse Current at T <sub>J</sub> =25°C Rated DC Blocking Voltag T <sub>J</sub> =100°C	I <sub>R</sub>	10 100						uA
Typical Thermal Resistance,Junction to Ambient	R <sub>θJA</sub>	70.0						°C/W
Typical Thermal Resistance,Junction to Case	R <sub>θJC</sub>	3.0						°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150						°C

Note: 1.Measured With I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A,I<sub>RR</sub>=0.25A



RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Forward current derating curve

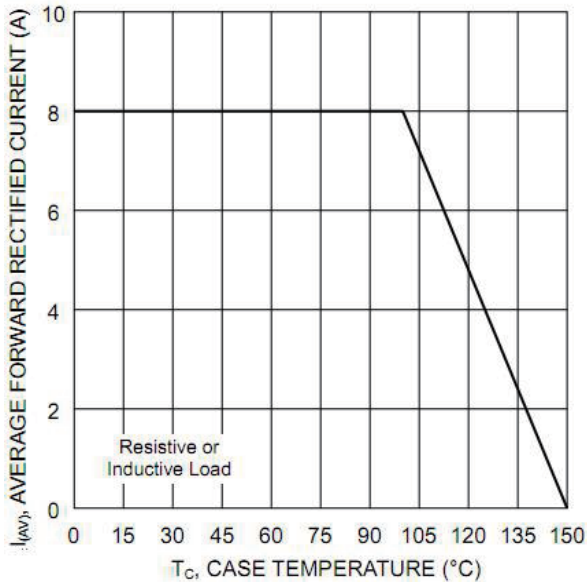


Fig. 2 - Maximum non-repetitive peak fwd surge current

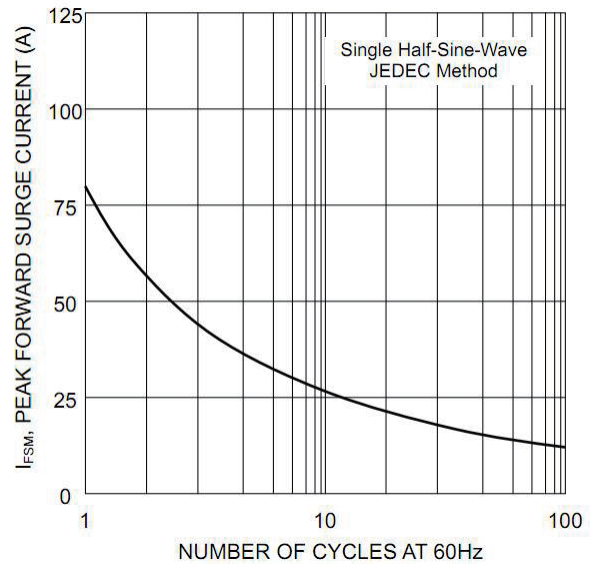


Fig.3 - Typical reverse characteristics

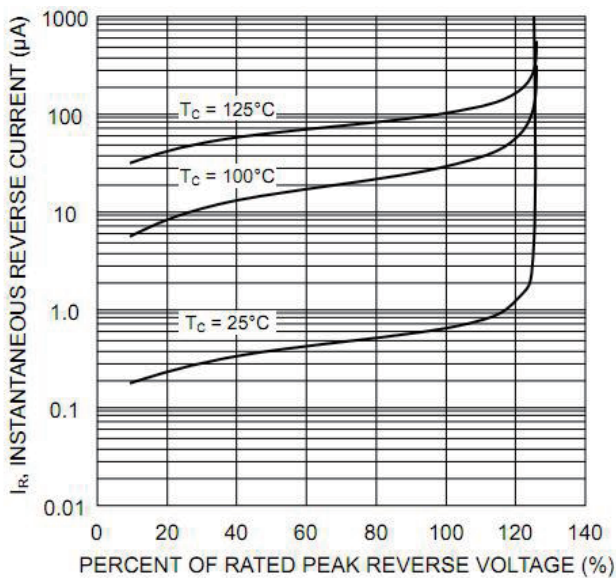
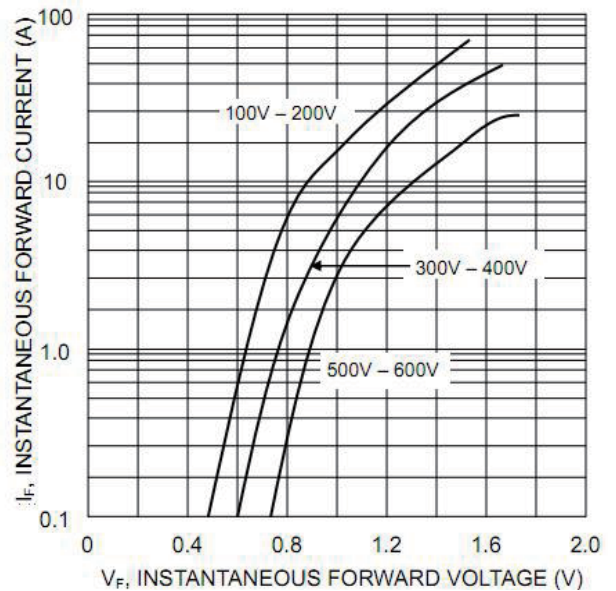


Fig. 4 - Typical forward characteristics





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