



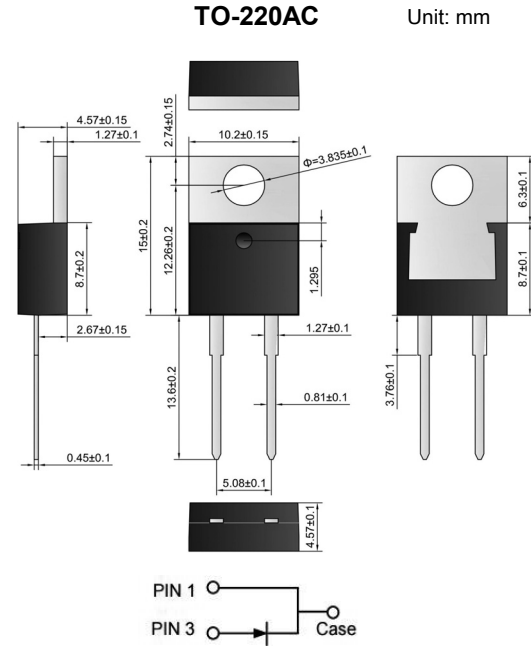
### SUPERFAST RECTIFIER DATA SHEET

#### FEATURES

- Fred Chip Planar Construction
- Hyper Fast Recovery Time
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Plastic Case Material has UL Flammability Classification Rating 94V-O

#### MECHANICAL DATA

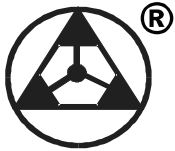
- Case: TO-220AC TYPE molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: as marked
- Weight: 1.9 grams (approx)
- Lead Free: For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std



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

Parameter Symbol	Symbol	UF3006		Unit
Device marking code		UF3006		
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600		V
Maximum RMS voltage	V <sub>RMS</sub>	420		V
Maximum DC blocking voltage	V <sub>DC</sub>	600		V
Maximum average forward rectified current at T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	30.0		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>	300		A
Maximum instantaneous forward voltage at 30A	V <sub>F</sub>	Typ.	Max.	V
		1.3	1.6	
Maximum DC revers current T <sub>a</sub> =25°C	I <sub>R</sub>	5		μA
Maximum DC revers current T <sub>a</sub> =100°C		250		
Thermal Resistance Junction To Ambient	R <sub>thJA</sub>	70		°C/W
Thermal Resistance Junction To Case	R <sub>thJC</sub>	4.0		
Maximum Reverse Recovery Time (Note1)	T <sub>rr</sub>	Typ.	Max.	nS
		35	50	
Operating temperature range	T <sub>J</sub>	- 55 to + 150		°C
Storage temperature range	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

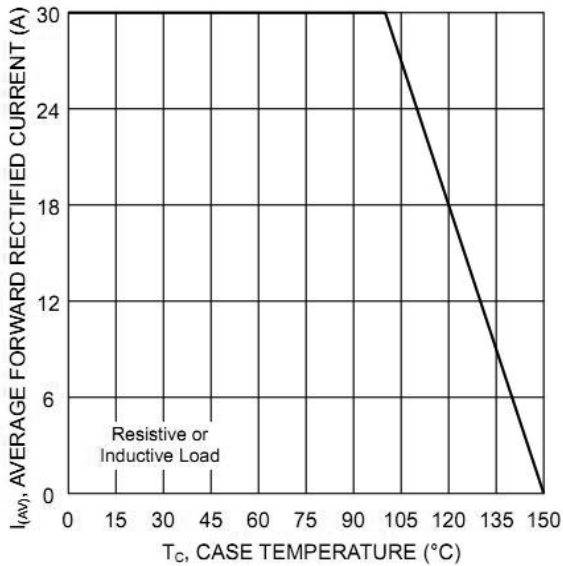


Fig. 2 - Forward surge current derating curve

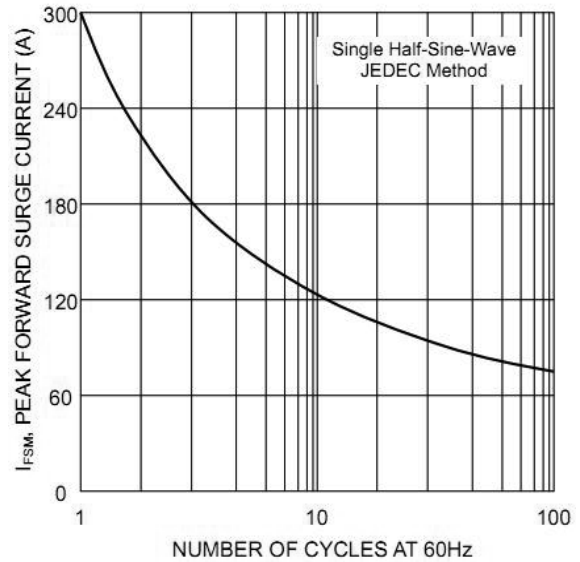


Fig.3 - Typical reverse characteristics

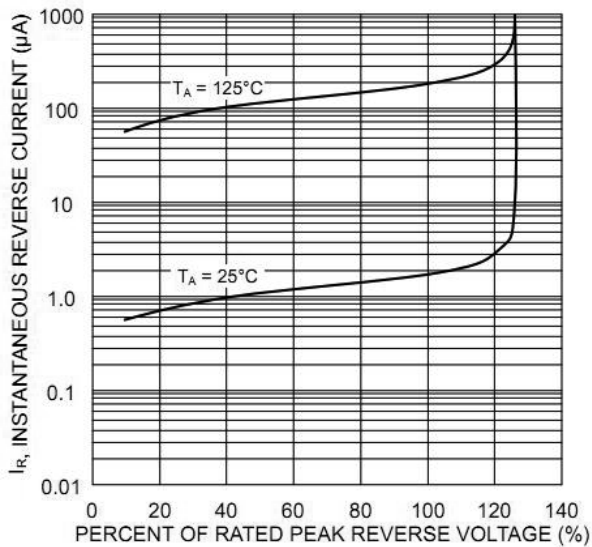
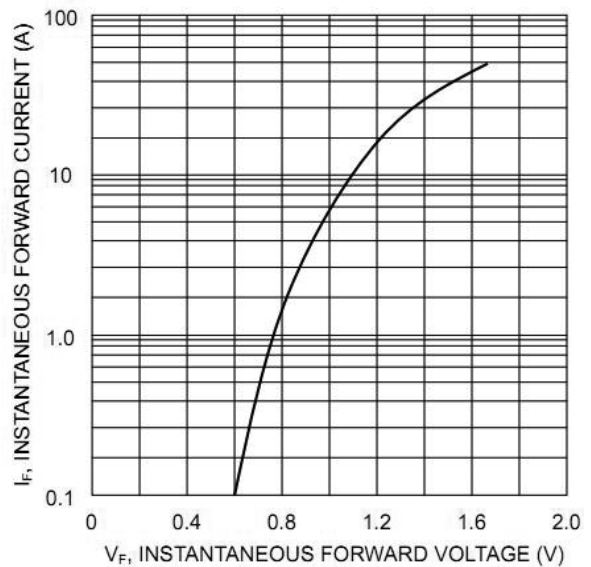


Fig. 4 - Typical forward characteristics





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