

FR806-1

Ultra fast Plastic Power Rectifiers

VOLTAGE: 800V

CURRENT: 8.0A

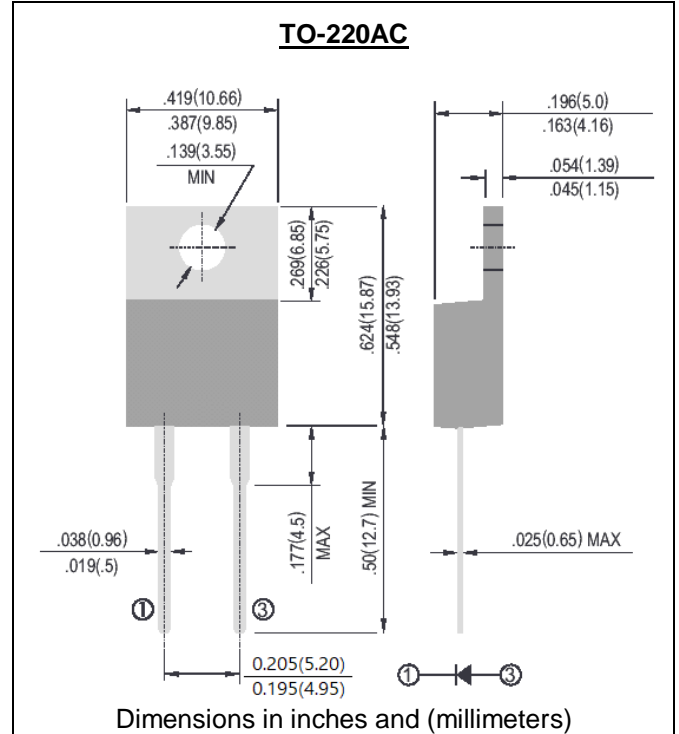


FEATURE

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High voltage and high reliability
- High speed switching
- Low forward voltage

MECHANICAL DATA

- Case: JEDEC TO-220 molded plastic body over passivated chip
- Terminals: Plated axial leads, solderable per J-STD-002
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	FR806-1	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	800	V
Maximum RMS Voltage	V _{rms}	560	V
Maximum DC blocking Voltage	V _{dc}	800	V
Maximum Average Forward Rectified at T _c =75°C	I _{f(av)}	8.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	180	A
Maximum Forward Voltage at rated Forward Current	V _f	1.30	V
Maximum DC Reverse Current at rated DC blocking voltage	I _r	10 150	μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	500	nS
Typical thermal resistance junction to case	R _{th(jc)}	3.0	°C/W
Storage and Operating Temperature Range	T _{stg} , T _j	-55 to +150	°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A

Fig. 1 – Maximum Forward Current Derating Curve

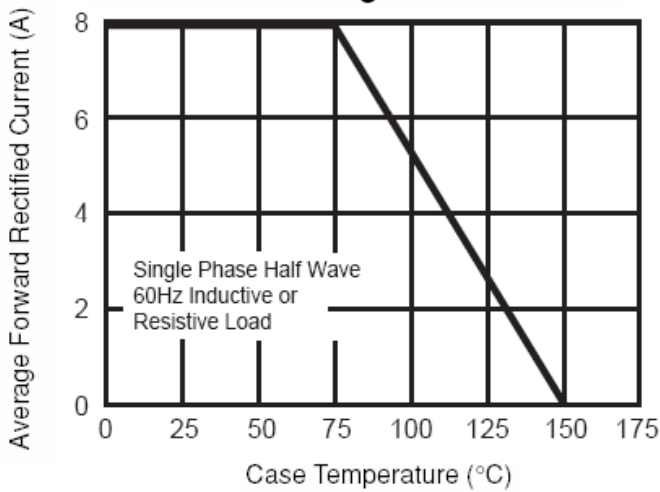


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

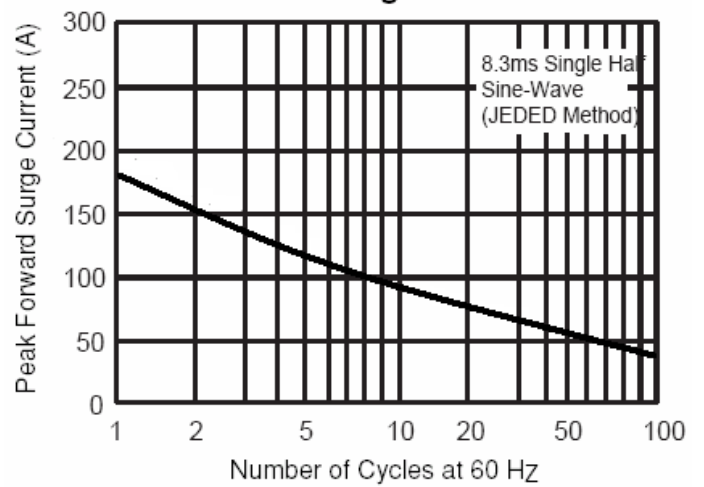


Fig. 3 – Typical Instantaneous Forward Characteristics

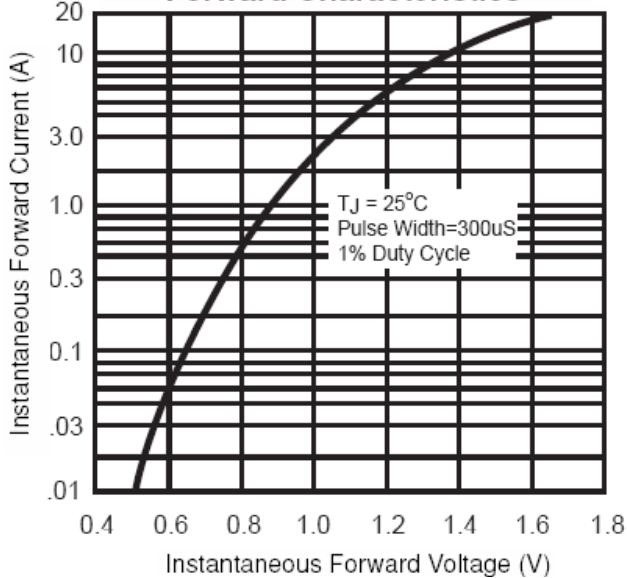


Fig. 4 – Typical Reverse Leakage Characteristics

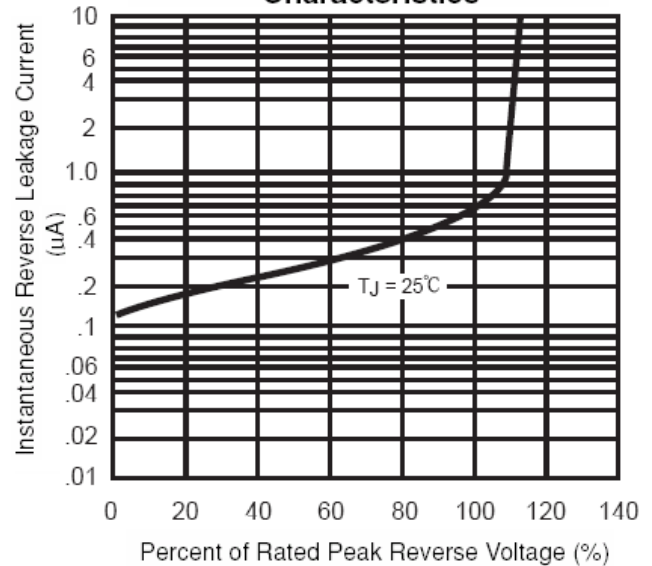


Fig.5 – Typical Junction Capacitance

