

# ER800F THRU ER804F

## ISOLATION SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 400 Volts CURRENT - 8.0 Amperes

### 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
- Super fast recovery times, high voltage
- Epitaxial chip construction

### MECHANICAL DATA

Case: ITO-220AC full molded plastic package

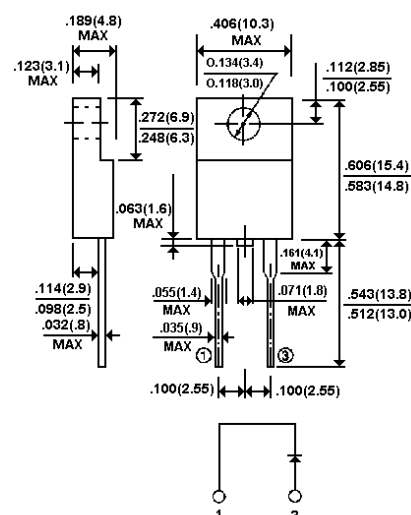
Terminals: Leads, solderable per MIL-STD-202, Method 208

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounce, 2.24 grams

### ITO-220AC



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, Resistive or inductive load.

For capacitive load, derate current by 20%.

	ER800F	ER801F	ER801AF	ER802F	ER803F	ER804F	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	V
Maximum RMS Voltage	35	70	105	140	210	320	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current at T <sub>C</sub> =100 ℃	8.0						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	125						A
Maximum Forward Voltage at 8.0A per element	0.95				1.30		V
Maximum DC Reverse Current at T <sub>a</sub> =25 ℃	10						µg A
DC Blocking Voltage per element T <sub>a</sub> =125 ℃	500						
Typical Junction capacitance (Note 1)	62						pF
Maximum Reverse Recovery Time(Note 2)	35				50		ns
Typical Junction Resistance(Note 3) R <sub>θJC</sub>	3.0						℃/W
Operating and Storage Temperature Range T <sub>J</sub>	-55 to +150						℃

### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$
3. Thermal resistance junction to CASE

## RATING AND CHARACTERISTIC CURVES

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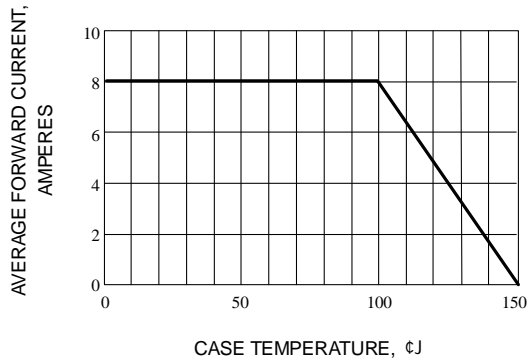


Fig. 1-FORWARD CURRENT DERATING CURVE

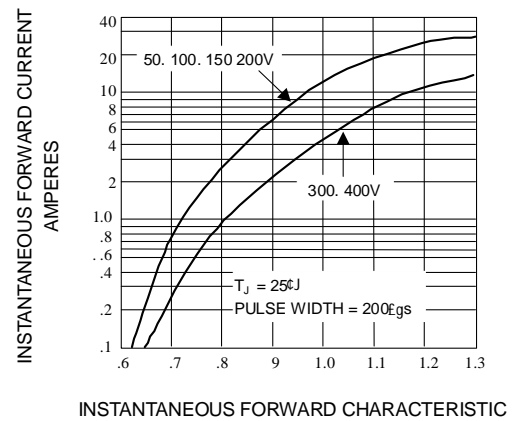


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

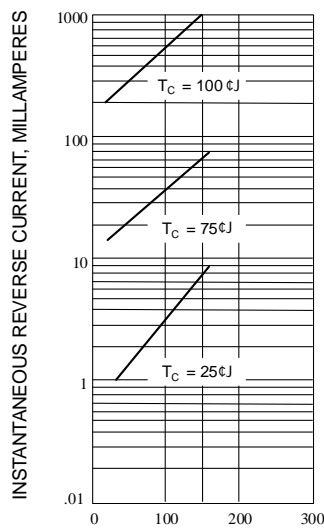


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

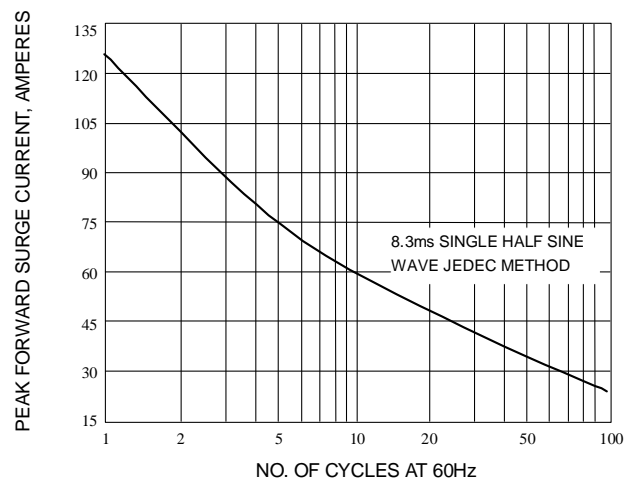


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

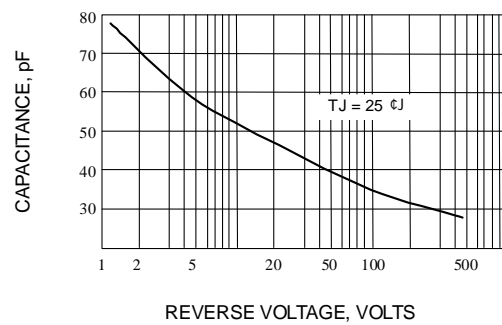


Fig. 5-TYPICAL JUNCTION CAPACITANCE