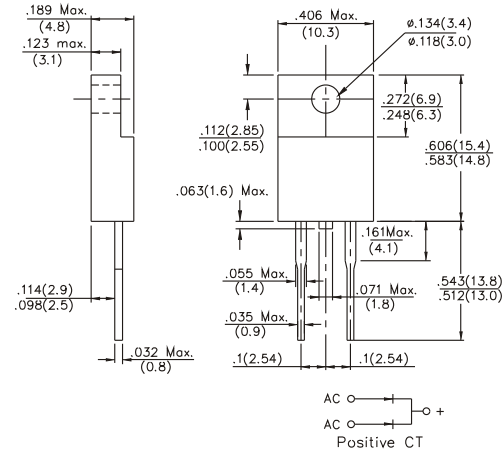
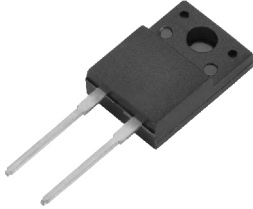


# FR801F thru FR807F

## FAST RECOVERY RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 8.0 AMPERES

ITO-220AC



Dimensions in inches and (millimeters)

### FEATURES

- High Current Capability
- High surge Current Capability
- Low reverse current
- Component in accordance to RoHs 2002/95/EC

### MECHANICAL DATA

Case : TO220AC Molded plastic  
 Case Material Molded Plastic. UL Flammability Classification Rating 94V-0  
 Terminals: Lead free Plating (Tin finish)  
 Solderable per MIL-STD-202, Method 208 guaranteed  
 Polarity : As Marked on the body  
 Weight : 1.618 gram approximate

### 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%

PARAMETER	SYMBOL	FR801F	FR802F	FR803F	FR804F	FR805F	FR806F	FR807F	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_F$	8.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	125.0							A
Maximum Instantaneous Forward Voltage @ $I_F=8.0$	$V_F$	1.30							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	$I_R$	10.0 200.0							$\mu A$
Typical Junction Capacitance(NOTE 1)	$C_J$	200							pF
Maximum Reverse Recovery Time, (NOTE 2)	$T_{rr}$	150			250		500		ns
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

2. Measured with  $I_F=0.5A, I_R=1A, I_{RR}=0.25A$

# FR801F thru FR807F

## FAST RECOVERY RECTIFIER

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

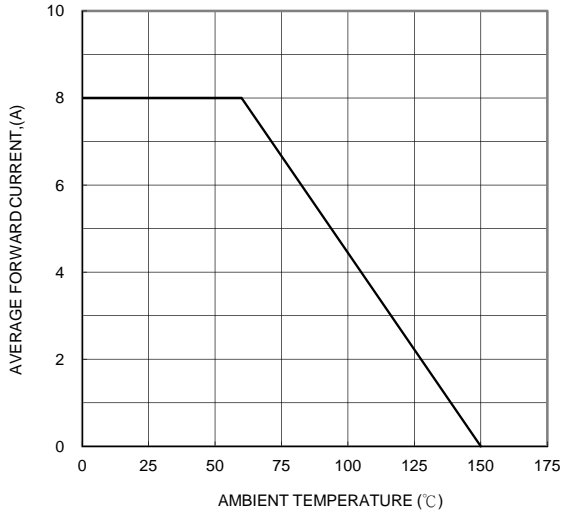


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

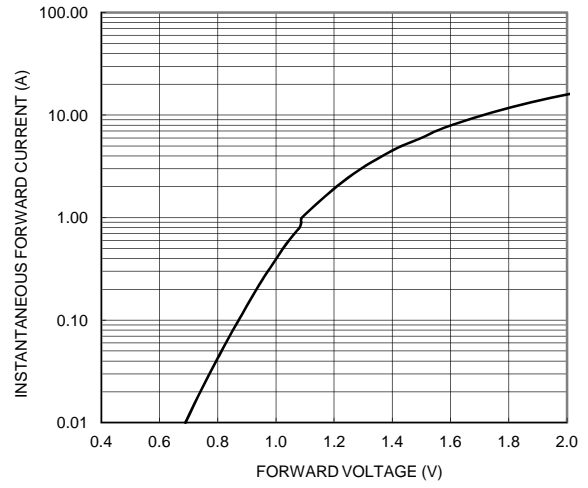


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

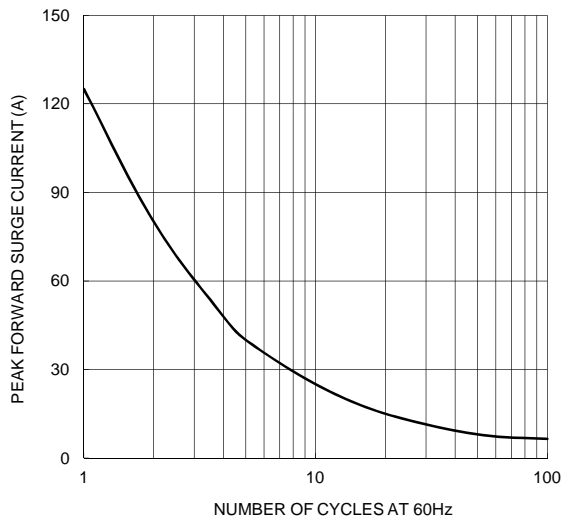


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

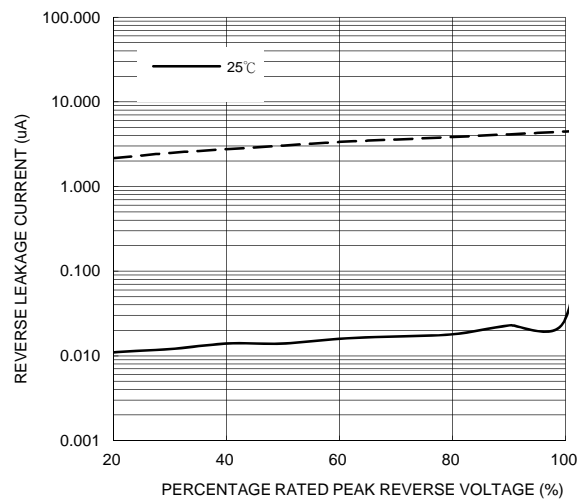


FIG. 5-TYPICAL JUNCTION CAPACITANCE

