

### SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

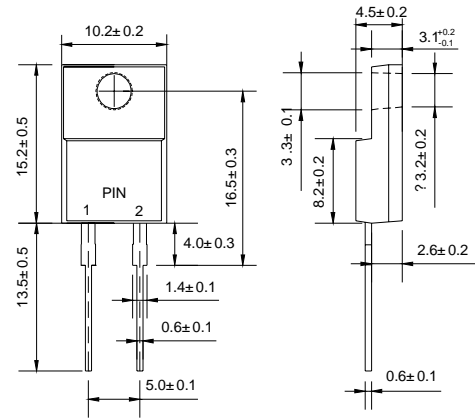
#### FEATURES

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- Case: JEDEC ITO-220AC
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.064 ounces, 1.81 gram
- Mounting position: Any

#### ITO-220AC



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

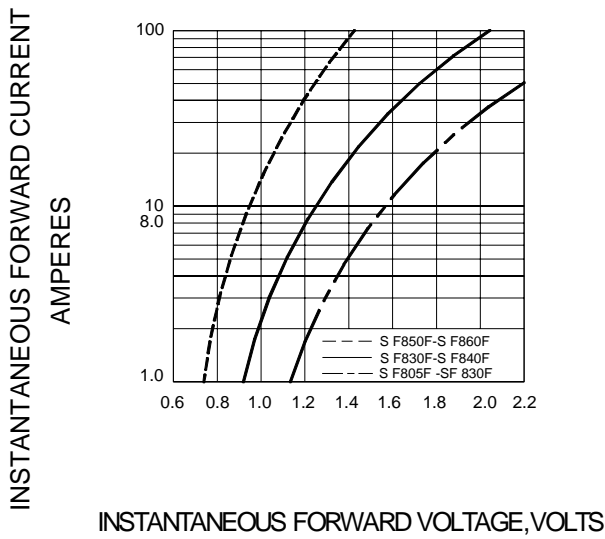
Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		SF 805F	SF 810F	SF 820F	SF 830F	SF 840F	SF 850F	SF 860F	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	V
Maximum average forward rectified current total device (rated $V_R$ ), $T_C=100$	$I_{(AV)}$	8.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	125							A
Maximum instantaneous forward voltage (Note1) @ $I_F=8.0A$	$V_F$	0.98		1.3		1.7		V	
Maximum reverse current at rated DC blocking voltage	$I_R$	10 500							$\mu A$
Maximum reverse recovery time (Note2)	$t_{rr}$	35							ns
Typical thermal resistance junction to case	$R_{\theta JC}$	5.0							/W
Operating junction temperature range	$T_j$	- 55 ---- + 150							
Storage temperature range	$T_{STG}$	- 55 ---- + 150							

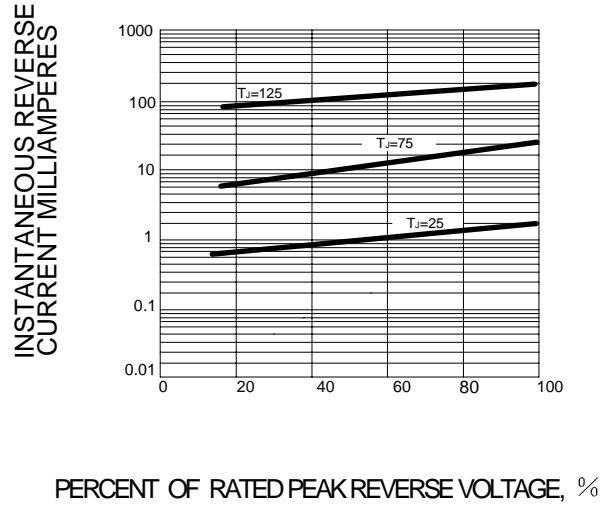
NOTE:1. Pulse test: pulse width=300 $\mu s$ , duty cycle 2.0%

2. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $t_{rr}=0.25 A$ .

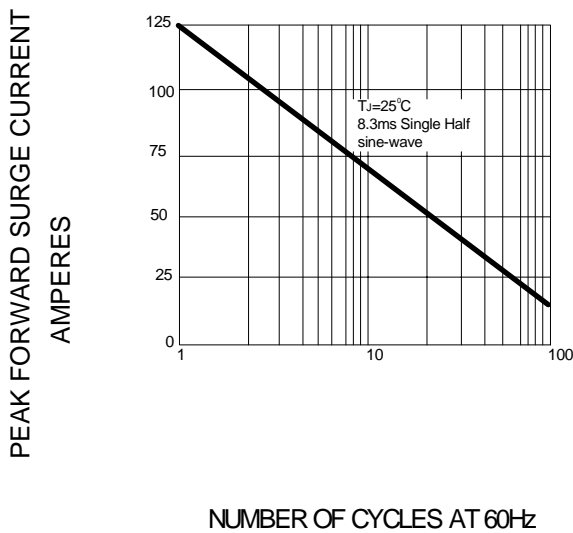
**FIG.1 –TYPICAL FORWARD CHARACTERISTIC**



**FIG.2 –TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 – PEAK FORWARD SURGE CURRENT**



**FIG.4 – FORWARD DERATING CURVE**

