

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

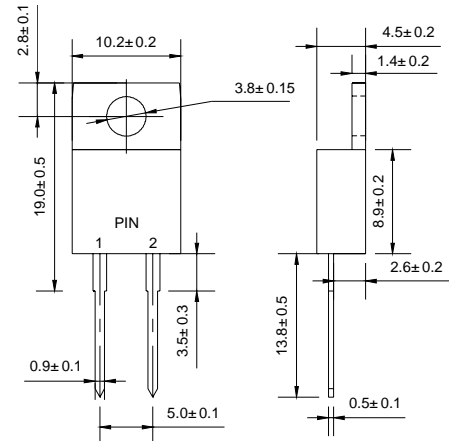
FEATURES

- 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 TO-220AC
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.069 ounces, 1.96 gram
- Mounting position: Any

TO-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 805	SF 810	SF 820	SF 830	SF 840	SF 850	SF 860	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							μA
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 μs , duty cycle 2.0%

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

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

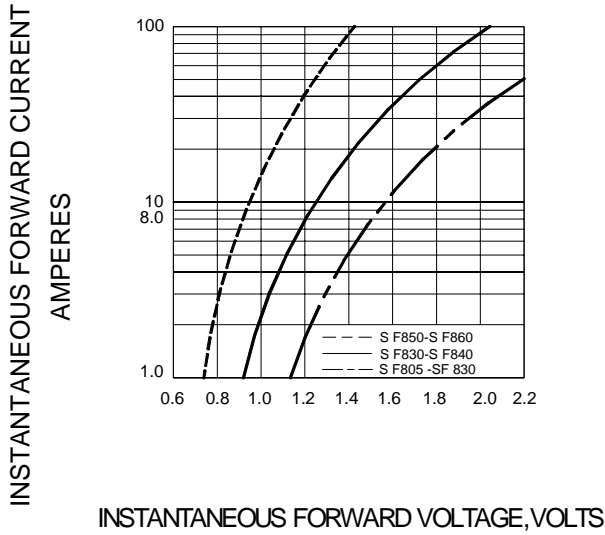


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

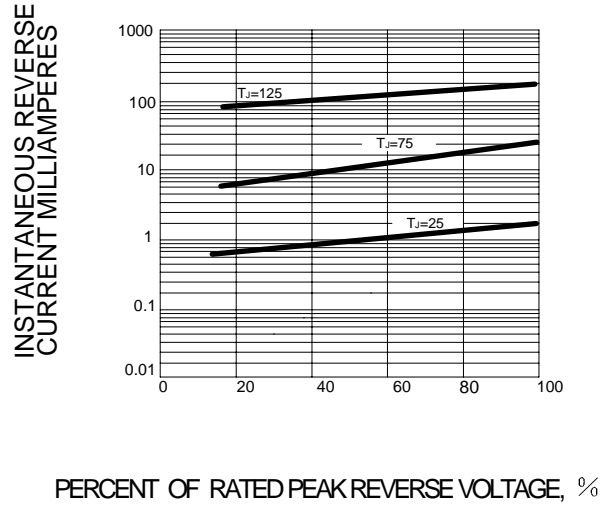


FIG.3 – PEAK FORWARD SURGE CURRENT

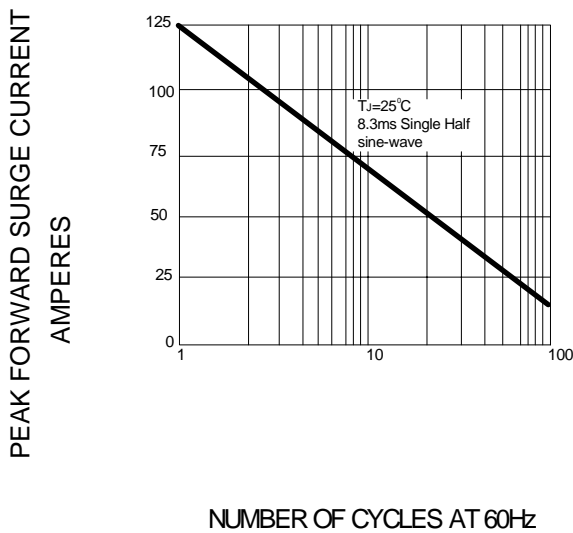


FIG.4 – FORWARD DERATING CURVE

