

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

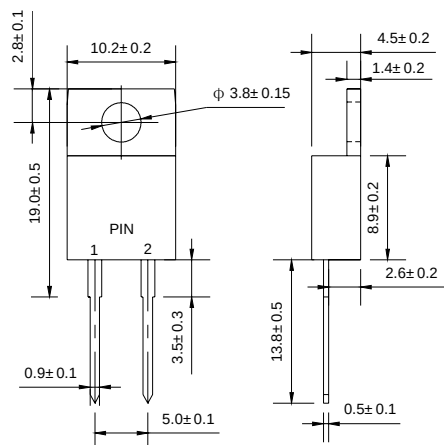
FEATURES

- ◇ 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°C	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 _{θJC}	5.0							°C/W
Operating junction temperature range	T _j	- 55 ---- + 150							°C
Storage temperature range	T _{STG}	- 55 ---- + 150							°C

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

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

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

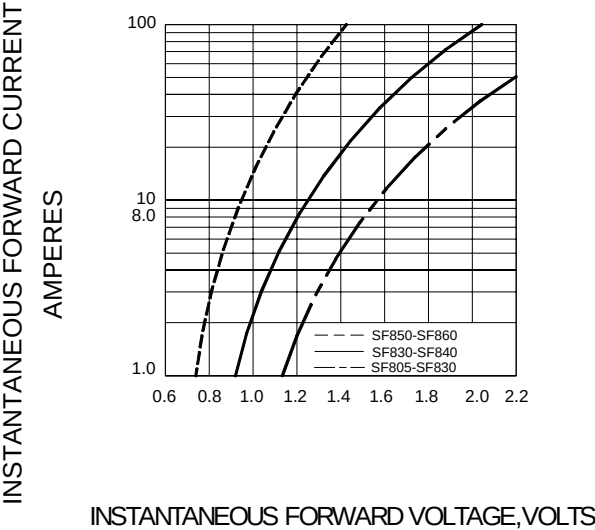


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

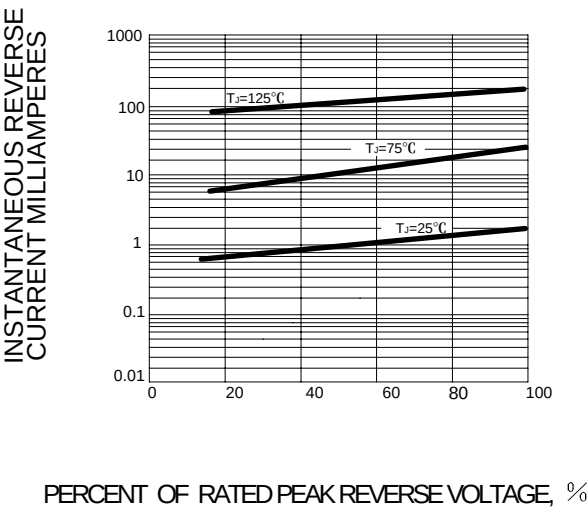


FIG.3 – PEAK FORWARD SURGE CURRENT

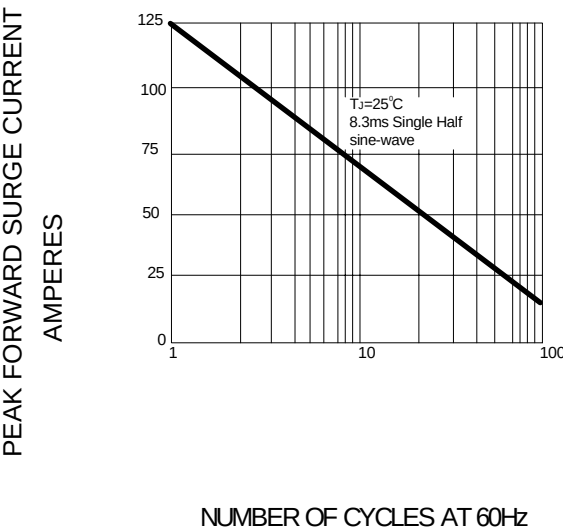


FIG.4 – FORWARD DERATING CURVE

