

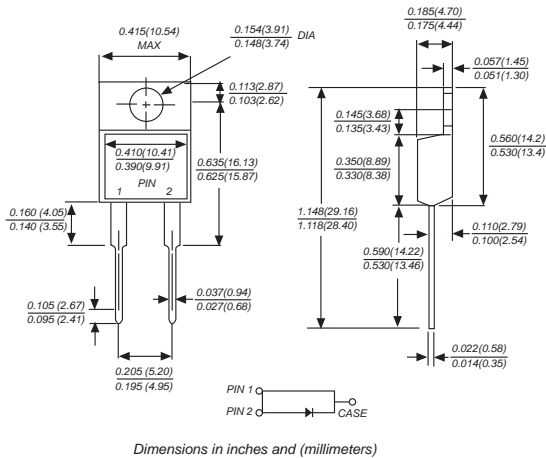


SF810 THRU SF860

ULTRAFAST RECOVERY RECTIFIERS

Reverse Voltage - 100 to 600 Volts Forward Current - 8 Amperes

TO-220AC



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

MECHANICAL DATA

Case: TO-220AC molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams

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 current derate by 20%.

MDD Catalog Number	SYMBOLS	SF810	SF820	SF830	SF840	SF850	SF860	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	300	400	500	600	VOLTS
Maximum RMS voltage	V_{RMS}	70	140	210	280	350	420	VOLTS
Maximum DC blocking voltage	V_{DC}	100	200	300	400	500	600	VOLTS
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	8						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	90						Amps
Maximum instantaneous forward voltage at 8A	V_F	1	1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	10 500						μA
Typical junction capacitance	C_J	80				50		pF
Maximum thermal resistance (NOTE 2)	$R_{\theta JC}$	5						°C/W
Maximum Reverse Recovery Time(Note1)	T_{rr}	35						nS
Operating Junction and Storage temperature range	T_J, T_{STG}	-55 to +150						°C

Note: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 2. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounte



RATINGS AND CHARACTERISTIC CURVES SF810 THRU SF860

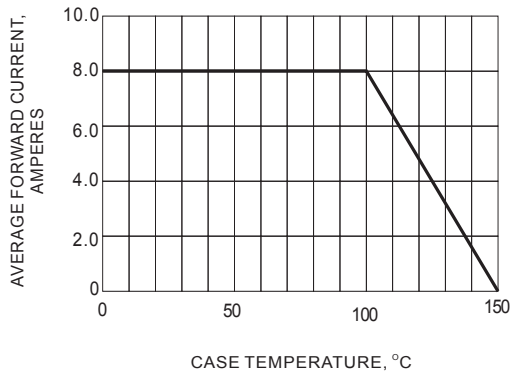


Fig.1 FORWARD CURRENT DERATING CURVE

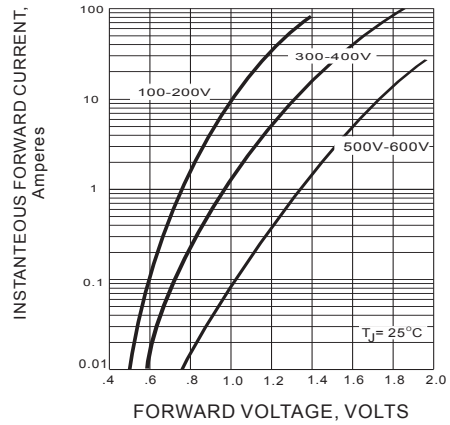


Fig.2 FORWARD CHARACTERISTICS

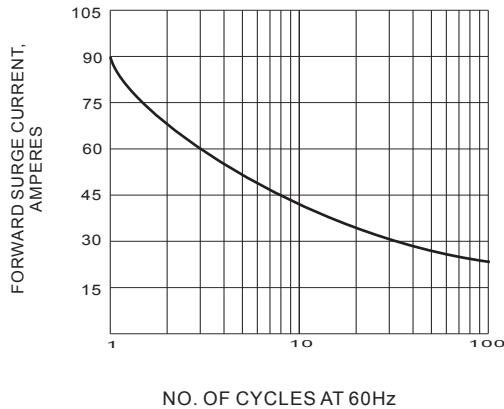


Fig.3 PEAK FORWARD SURGE CURRENT

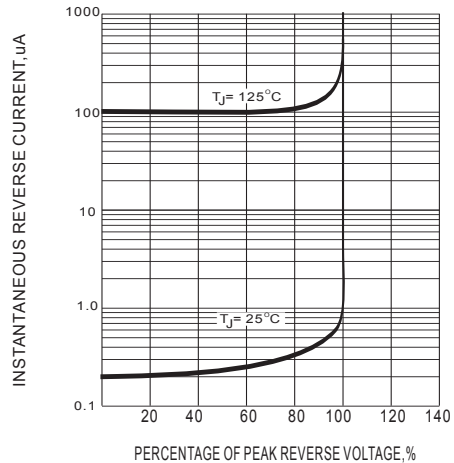


Fig.4 TYPICAL REVERSE CHARACTERISTICS

The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)



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