

# SF81 THRU SF88

## SUPER FAST RECOVERY RECTIFIER

VOLTAGE: 50-600V

CURRENT: 8.0A

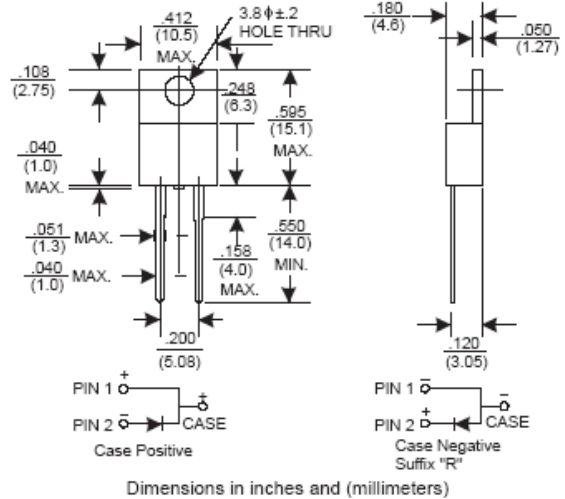
### FEATURES

- High reliability
- Low leakage
- Low forward voltage
- High current capability
- Super fast switching speed
- High surge capability
- Good for switching mode circuit

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 2.24 grams

### To-220A



## 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%.

	SYMBOL	SF81	SF82	SF83	SF84	SF85	SF86	SF88	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum Average Forward rectified Current at $T_A=100^\circ\text{C}$	$I_o$	8.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	180							A
Maximum Instantaneous forward Voltage at 8.0A DC	$V_F$	1.0					1.35		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	$I_R$	10.0							$\mu\text{A}$
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at $T_L=75^\circ\text{C}$		100							
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	35				50			nS
Typical Junction Capacitance (Note 2)	$C_J$	15				10			pF

Notes: 1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0 volts