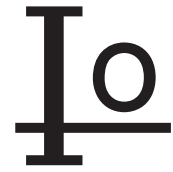


SF81 THRU SF88



8.0 AMP SUPER FAST RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Good for switching mode application

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 1.78 grams
- * Lead Free Finish/RoHS Compliant

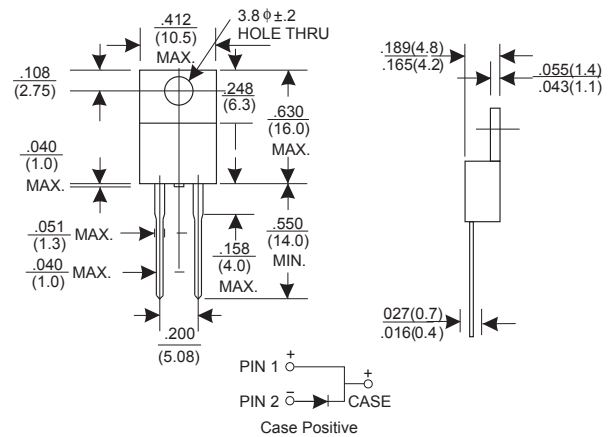
VOLTAGE RANGE

50 to 600 Volts

CURRENT

8.0 Amperes

TO-220AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

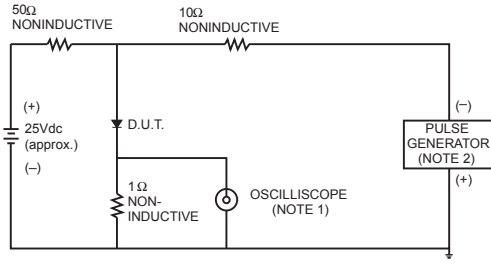
TYPE NUMBER	SF81	SF82	SF83	SF84	SF85	SF86	SF88	UNITS	
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V	
Maximum RMS Voltage	35	70	105	140	210	280	420	V	
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Tc=100°C								8.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)								125	A
Maximum Instantaneous Forward Voltage at 8.0A	0.95				1.30	1.70		V	
Maximum DC Reverse Current Tc=25°C								10	μA
at Rated DC Blocking Voltage Tc=100°C								500	μA
Maximum Reverse Recovery Time (Note 1)	35			50				nS	
Typical Junction Capacitance (Note 2)								50	pF
Operating and Storage Temperature Range Tj, Tstg								-65 — +150	°C

NOTES:

- Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SF81 THRU SF88)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

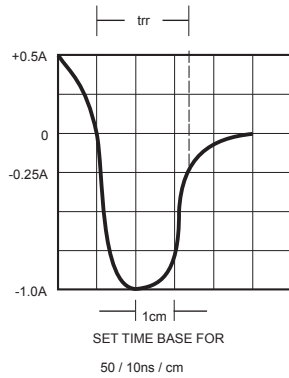


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

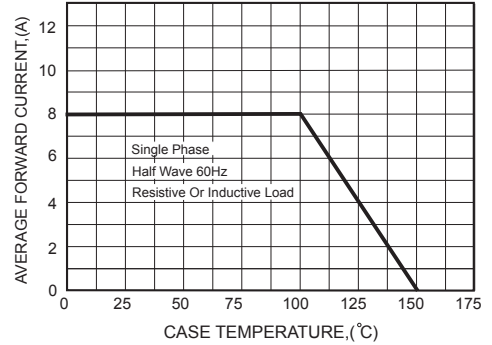


FIG.3-TYPICAL FORWARD CHARACTERISTICS

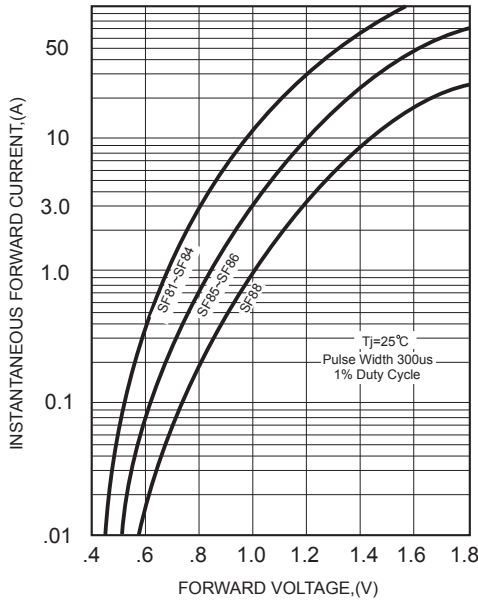


FIG.4-TYPICAL REVERSE CHARACTERISTICS

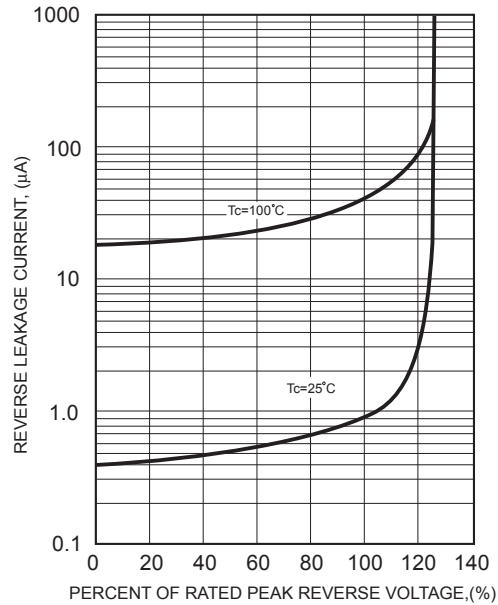


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

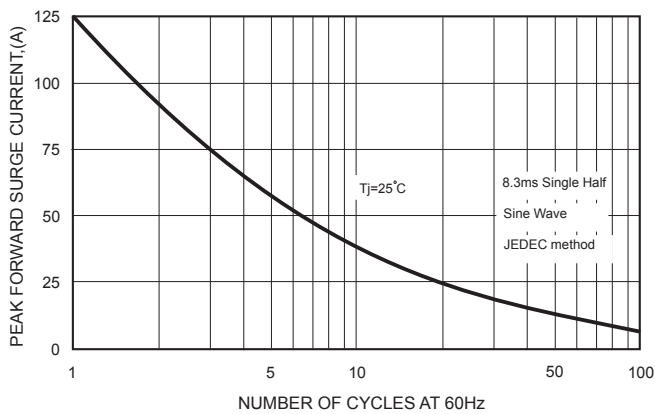


FIG.6-TYPICAL JUNCTION CAPACITANCE

