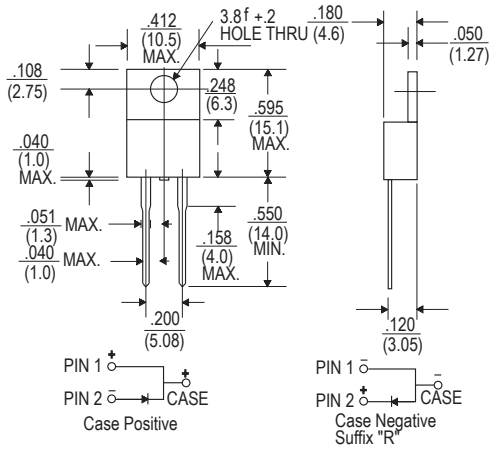
SF81 THRU SF87

CURRENT 8.0 Amperes
VOLTAGE 50 to 600 Volts

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Super fast recovery time
- Good for use in switching mode circuits
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

TO-220A



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC TO-220A molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : As marked
- Mounting Position : Any
- Weight : 0.08 ounce, 2.24 gram

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

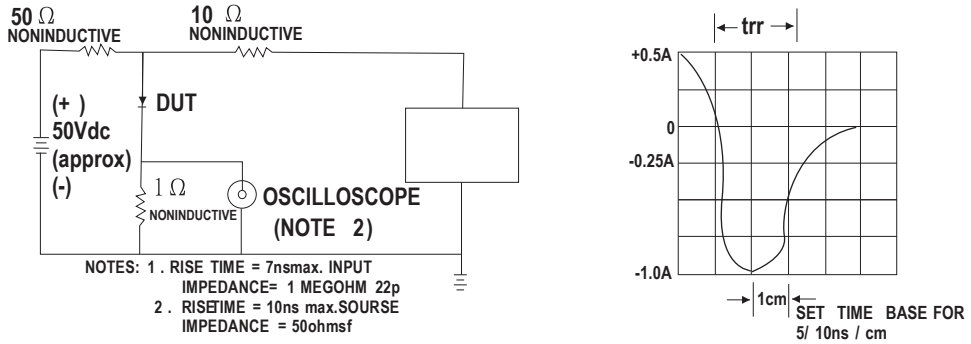
		Symbols	SF81	SF82	SF83	SF84	SF85	SF86	SF87	Units
Maximum recurrent peak reverse voltage		V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS voltage		V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage		V_{DC}	50	100	150	200	300	400	600	Volts
Maximum average forward rectified current at T_C=100℃		$I_{(AV)}$	8.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	125							Amps
Maximum instantaneous forward voltage at 8.0A		V_F	0.975				1.30		1.70	Volts
Maximum DC reverse current at rated DC blocking voltage	T_A=25℃	I_R	10							μA
	T_A=100℃		400							
Maximum reverse recovery time (Note 1)		Trr	35							ns
Typical junction capacitance (Note 2)		C_J	80				60			pF
Typical thermal resistance (Note 3)		$R\Theta_{JC}$	2.2							℃/W
Operating junction and storage temperature range		T_J T_{STG}	-55 to +125 -55 to +150							℃

Notes:
(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.
(3) Thermal resistance from junction to case mounting on heatsink.

DEC

RATINGS AND CHARACTERISTIC CURVES SF81 THRU SF87

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



NOTES: 1 . RISE TIME = 7nsmax. INPUT
IMPEDANCE= 1 MEGOHM 22p
2 . RISETIME = 10ns max.SOURSE
IMPEDANCE = 50ohmsf

FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING

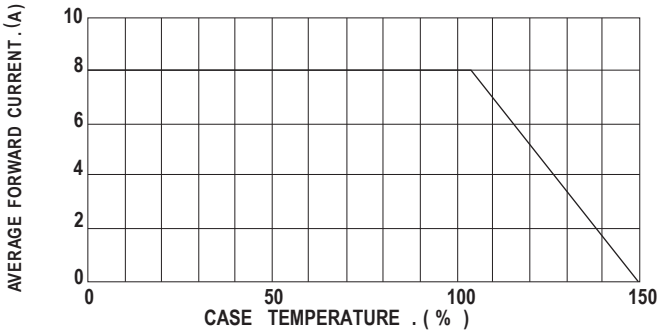


FIG . 3 - TYPICAL REVERSE CHARACTERISTICS

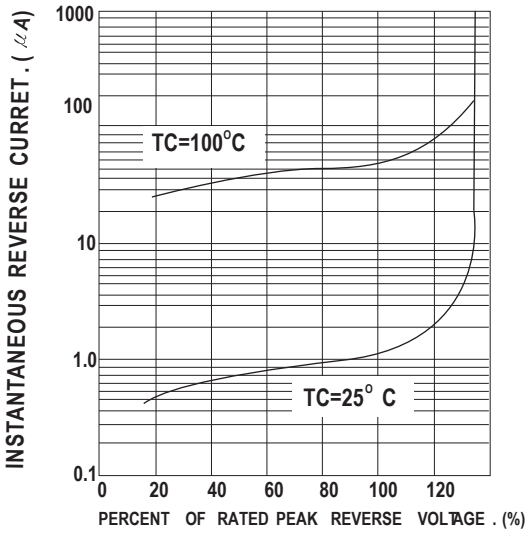


FIG . 4 -MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

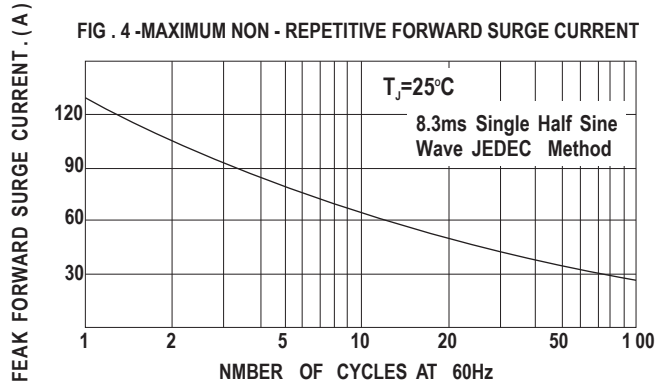


FIG . 5 -TYPICAL JUNCTIOON CAPACITANCE

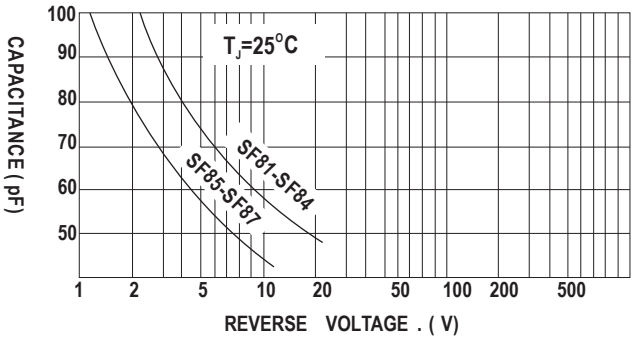


FIG . 6 -TYPICAL FRWARD CHARACTERISTICS

