

SF801G - SF808G

8.0 AMPS. Glass Passivated Super Fast Rectifiers

TO-220AB

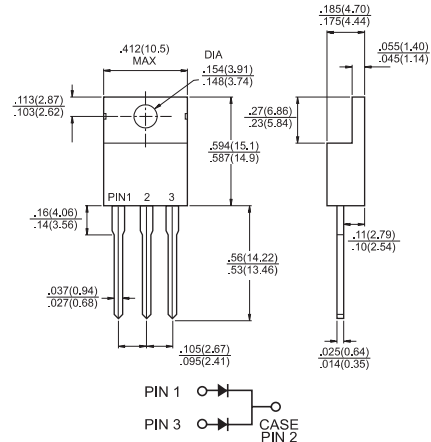


Features

- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss.
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application

Mechanical Data

- ✧ Case: TO-220AB Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free. solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SF 801G	SF 802G	SF 83G	SF 804G	SF 805G	SF 806G	SF 807G	SF 808G	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	480	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @T _C = 100 °C	I _(AV)	8.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	125								A
Maximum Instantaneous Forward Voltage @ 4.0A	V _F	0.975				1.3		1.7		V
Maximum DC Reverse Current @T _A =25 °C at Rated DC Blocking Voltage @ T _A =100 °C	I _R	10 400								uA uA
Maximum Reverse Recovery Tim (Note 1)	T _{rr}	35								nS
Typical Junction Capacitance (Note 2)	C _j	70				50				pF
Typical Thermal Resistance (Note 3)	R _{θJC}	3.0								°C/W
Operating Temperature Range T _J	T _J	-65 to +150								°C
Storage Temperature Range T _{STG}	T _{STG}	-65 to +150								°C

- Notes:
1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 3. Thermal Resistance from Junction to Case Mounted on Heatsink Size of 2" x 3" x 0.25" Al-Plate.

RATINGS AND CHARACTERISTIC CURVES (SF801G THRU SF808G)

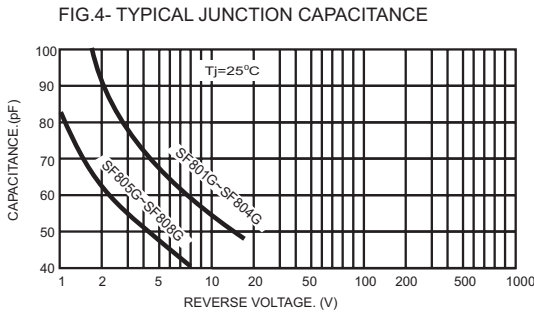
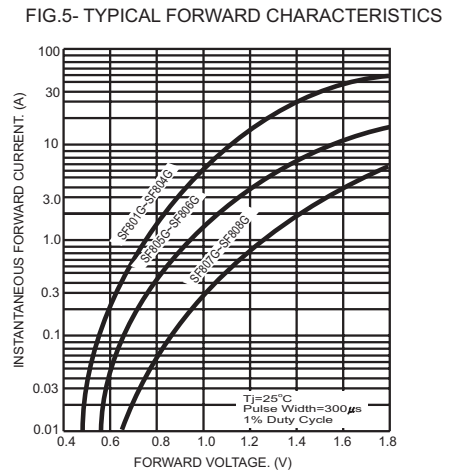
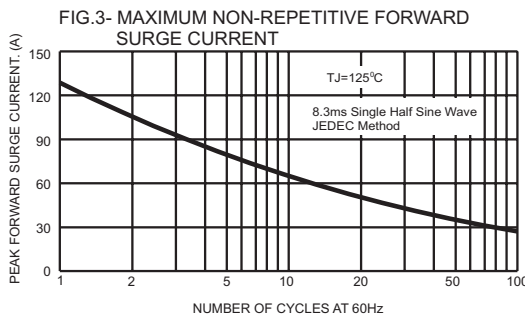
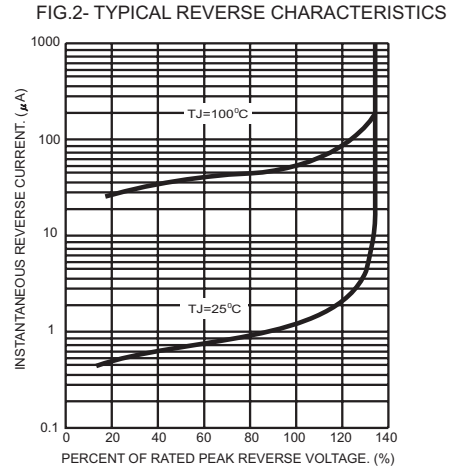
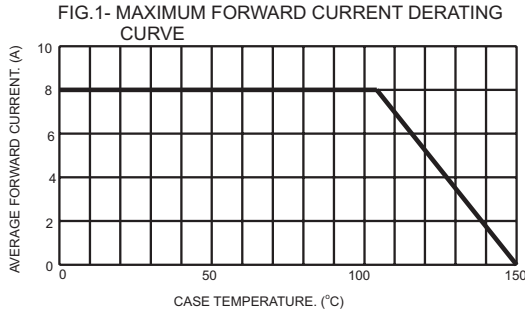


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

