



SFAF501G - SFAF508G

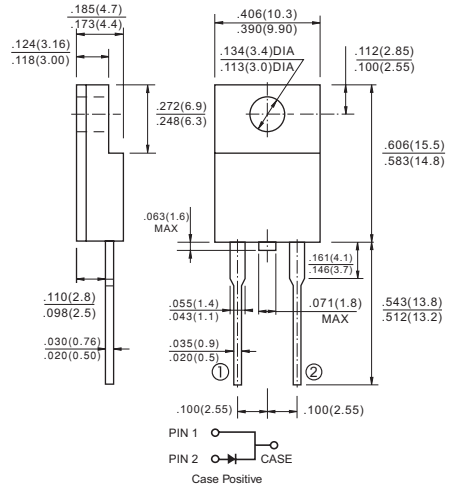
Isolated 5.0 AMPS.
 Glass Passivated Super Fast Rectifiers
ITO-220AC

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: ITO-220AC 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"(.406mm) 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	SFAF 501G	SFAF 502G	SFAF 503G	SFAF 504G	SFAF 505G	SFAF 506G	SFAF 507G	SFAF 508G	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	420	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)	5.0								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 @ 5.0A	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 Time (Note 1)	T _{rr}	35								nS
Typical Junction Capacitance (Note 2)	C _j	70								pF
Typical Thermal Resistance (Note 3)	R _{θJC}	5.0								°C/W
Operating Temperature Range	T _J	-65 to +150								°C
Storage Temperature Range	T _{STG}	-65 to +150								°C

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

RATINGS AND CHARACTERISTIC CURVES (SFAF501G THRU SFAF508G)

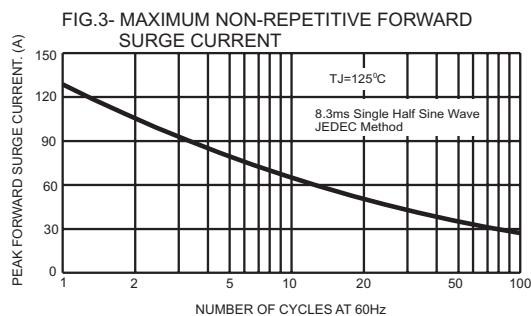
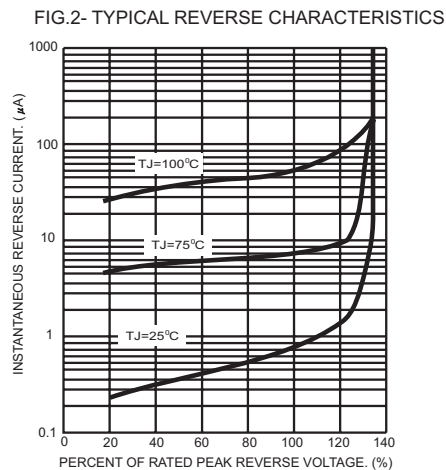
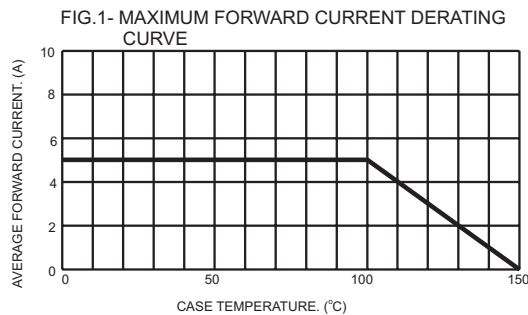


FIG.5- TYPICAL FORWARD CHARACTERISTICS

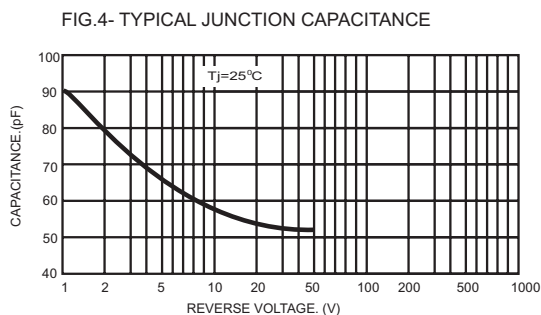
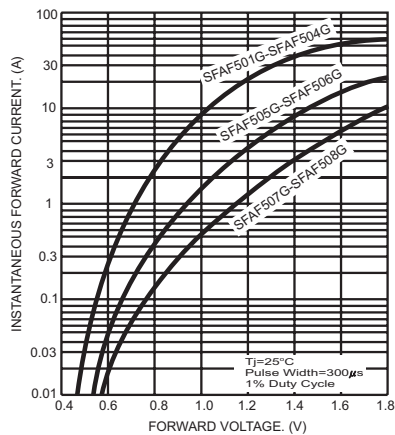


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

