



SFAF504G THRU SFAF508G

Isolation 5.0 AMPS. Glass Passivated Super Fast Rectifiers



Voltage Range
200 to 600 Volts
Current
5.0 Amperes

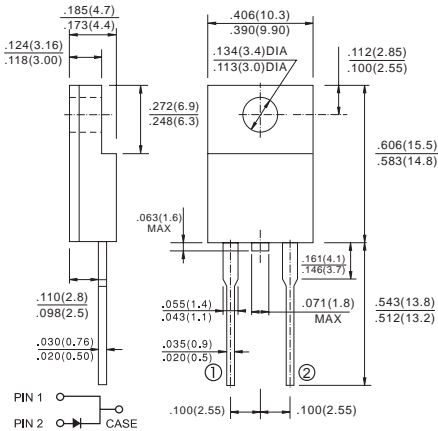
Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

Mechanical Data

- ✧ Case: ITO-220AC molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Terminals: Leads 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

ITO-220AC



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	SFAF504G	SFAF508G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	600	V
Maximum RMS Voltage	V_{RMS}	140	420	V
Maximum DC Blocking Voltage	V_{DC}	200	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	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	1.7	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	10.0	400	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35		nS
Typical Junction Capacitance (Note 2)	C_j	70		pF
Typical Thermal Resistance (Note 3)	$R_{\theta jc}$	5.0		$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150		$^\circ\text{C}$

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

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 in x 3 in x 0.25 in, Al-Plate

RATINGS AND CHARACTERISTIC CURVES (SFAF504G THRU SFAF508G)

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

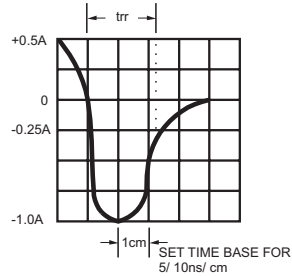
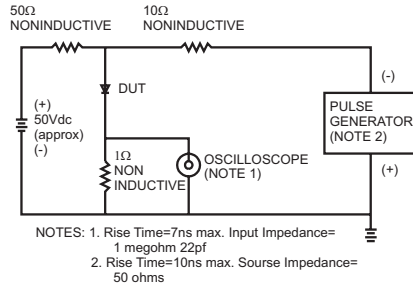


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

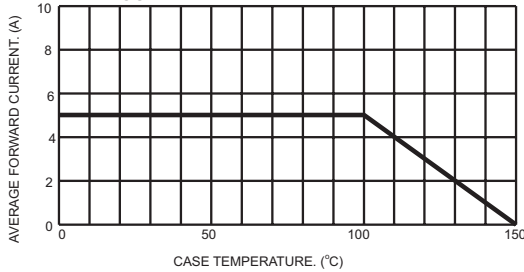


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

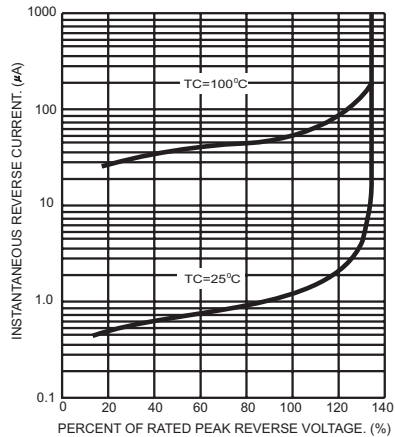


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

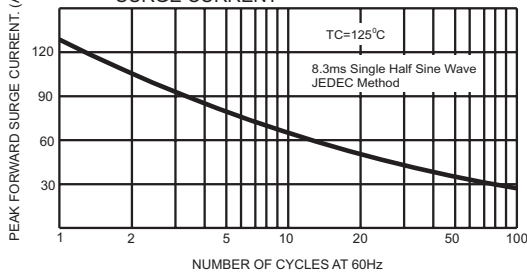


FIG. 6- TYPICAL FORWARD CHARACTERISTICS

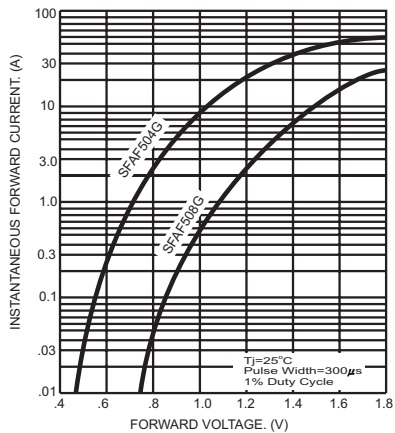


FIG. 5- TYPICAL JUNCTION CAPACITANCE

