

**GLASS PASSIVATED SUPER FAST RECTIFIERS**

**PRODUCT SUMMARY**

Isolated 16.0 AMPS



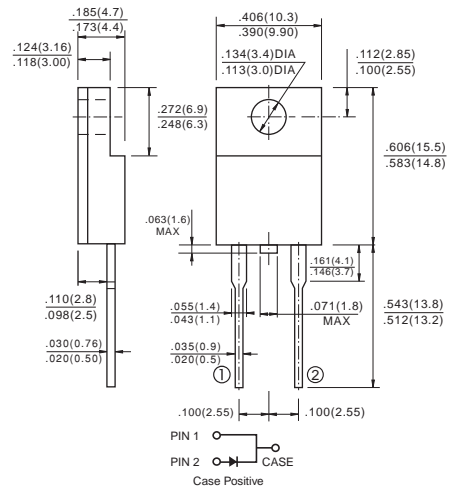
**FEATURES**

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

**MECHANICAL DATA**

- Cases: ITO-220AC molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, lead free. solderable per Case Positive 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	SFAF 1601G	SFAF 1602G	SFAF 1603G	SFAF 1604G	SFAF 1605G	SFAF 1606G	SFAF 1607G	SFAF 1608G	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 @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	16.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	200								A
Maximum Instantaneous Forward Voltage @ 16.0A	$V_F$	0.975			1.3		1.7			V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	$I_R$	10 400								uA uA
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35								nS
Typical Junction Capacitance (Note 2)	$C_j$	130				100				pF
Typical Thermal Resistance C (Note 3)	$R_{\theta JC}$	1.3								$^\circ\text{C}/\text{W}$
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. Mounted on Heatsink Size of 3" x 5" x 0.25" Al-Plate.

## RATINS AND CHARACTERISTIC CURVES (SFAF1601G THRU SFAF1608G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

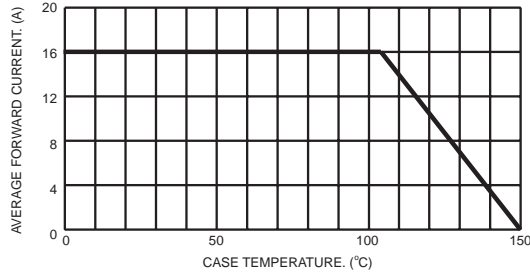


FIG.2- TYPICAL REVERSE CHARACTERISTICS

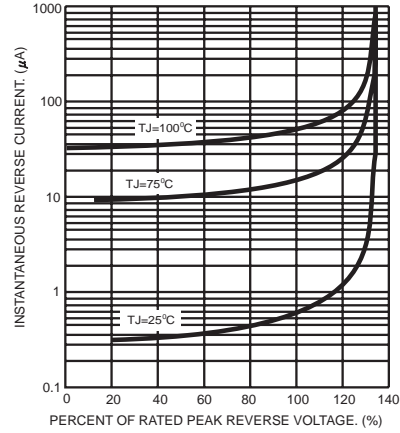


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

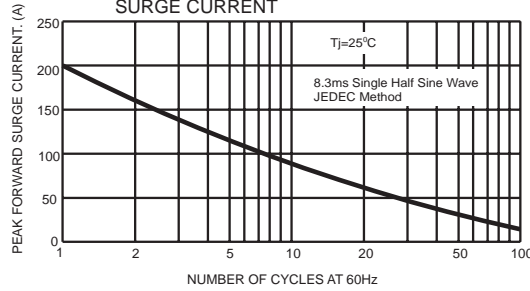


FIG.5- TYPICAL FORWARD CHARACTERISTICS

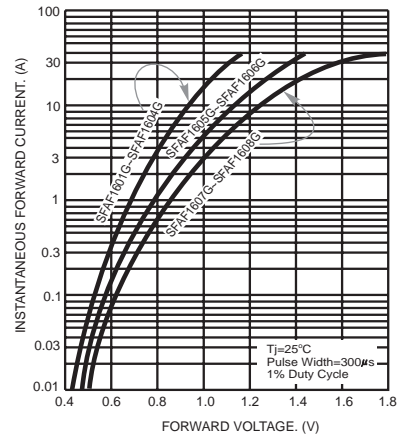


FIG.4- TYPICAL JUNCTION CAPACITANCE

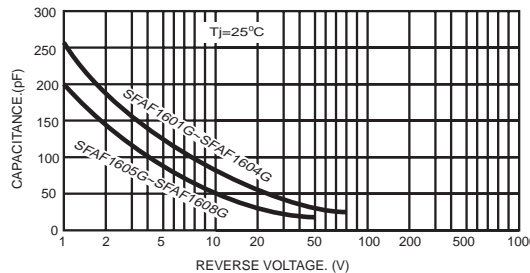
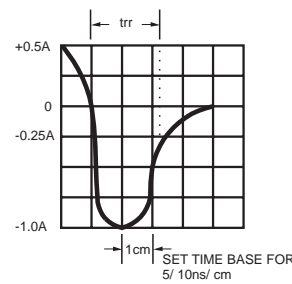
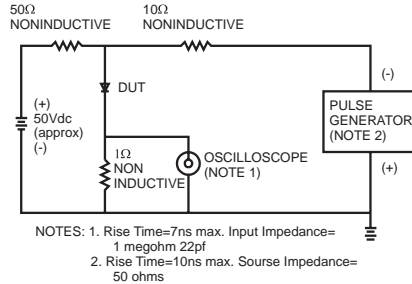


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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