

SFAF1601G - SFAF1608G

Isolated 16.0 AMPS.
Glass Passivated Super Fast Rectifiers
ITO-220AC

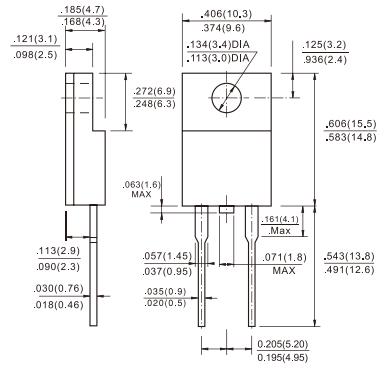


Features

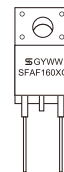
- ◇ UL Recognized File # E-326243
- ◇ High efficiency, low VF.
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ Low power loss.
- ◇ For use in low voltage, high frequency inventor, free wheeling, and polarity protection application
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◇ Cases: 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", (4.06mm) from case
- ◇ Weight: 1.70 grams



Dimensions in inches and (millimeters)
Marking Diagram



SFAF160XG = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

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	SFAF	SFAF	SFAF	SFAF	SFAF	SFAF	SFAF	Units
		1601G	1602G	1603G	1604G	1605G	1606G	1607G	1608G	
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 °C	I _{F(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 at Rated DC Blocking Voltage @T _A =25 °C (Note 1)	I _R					10				uA
						400				uA
Maximum Reverse Recovery Time (Note 4)	T _{rr}					35				nS
Typical Junction Capacitance (Note 2)	C _j	130			100					pF
Typical Thermal Resistance C (Note 3)	R _{θJC}	1.3								°C/W
Operating Temperature Range	T _J	-65 to +150								°C
Storage Temperature Range	T _{STG}	-65 to +150								°C

- Notes:
1. Pulse Test with PW=300 usec, 1% Duty Cycle
 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.
 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (SFAF1601G THRU SFAF1608G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

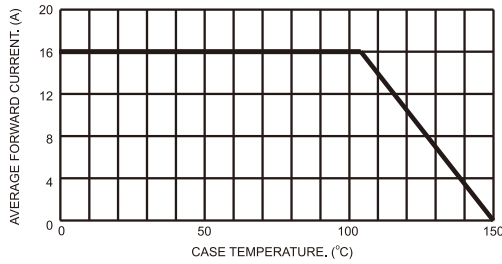


FIG.2- TYPICAL REVERSE CHARACTERISTICS

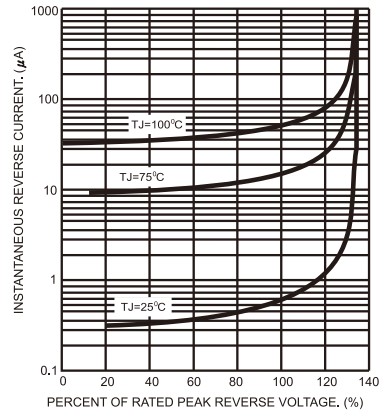


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

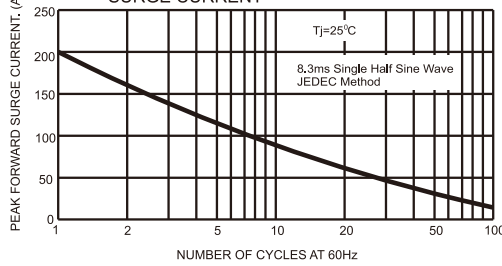


FIG.5- TYPICAL FORWARD CHARACTERISTICS

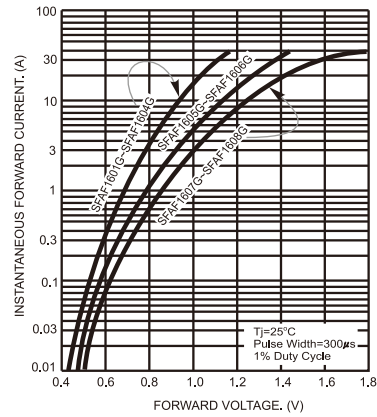


FIG.4- TYPICAL JUNCTION CAPACITANCE

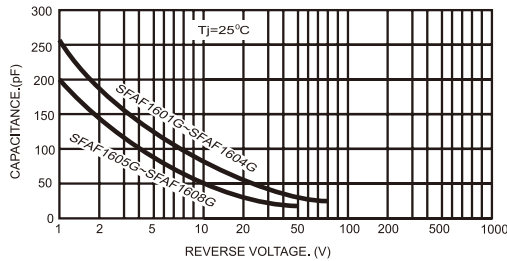


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

