

SFA1001G - SFA1008G

10.0 AMPS. Surface Mount Schottky Barrier Rectifiers

TO-220AC

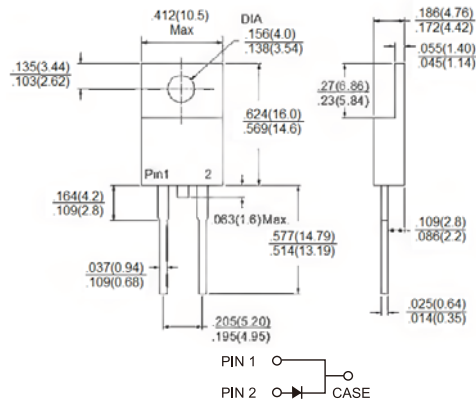


Features

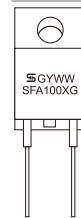
- ✧ UL Recognized File # E-326243
- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss.
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ✧ Green compound with suffix "G"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

Mechanical Data

- ✧ Cases: TO-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: 1.90 grams



Dimensions in inches and (millimeters)



Marking Diagram

SFA100XG = 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	SFA 1001G	SFA 1002G	SFA 1003G	SFA 1004G	SFA 1005G	SFA 1006G	SFA 1007G	SFA 1008G	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current @T _C = 100 °C	IF(AV)	10								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	125								A
Maximum Instantaneous Forward Voltage @ 10.0A	VF	0.975				1.3		1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage@ T _A =25 °C (Note 1) @ T _A =125 °C	IR	10 400								uA uA
Maximum Reverse Recovery Time (Note 4)	Trr	35								nS
Typical Junction Capacitance (Note 2)	Cj	70				50				pF
Typical Thermal resistance (Note 3)	RθJC	3.5								°C/W
Operating Temperature Range	TJ	-65 to +150								°C
Storage Temperature Range	TSTG	-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 2" x 3" 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 (SFA1001G THRU SFA1008G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

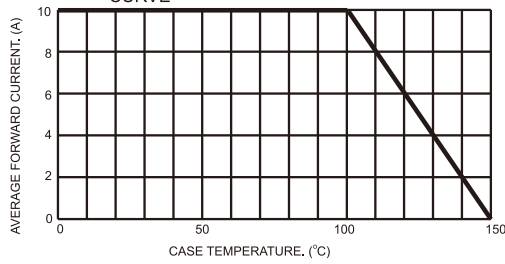


FIG.2- TYPICAL REVERSE CHARACTERISTICS

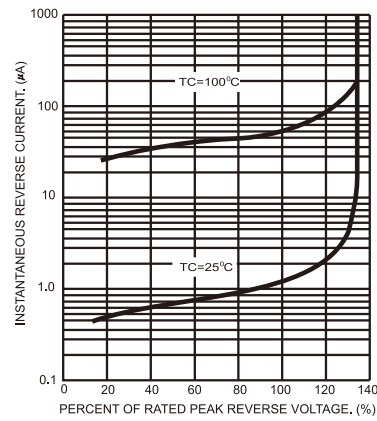


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

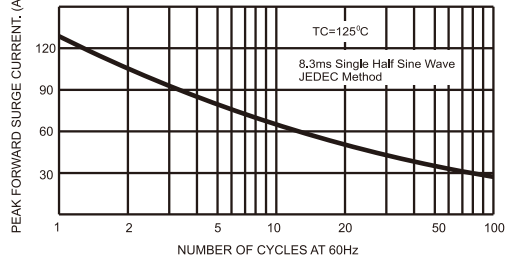


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER LEG

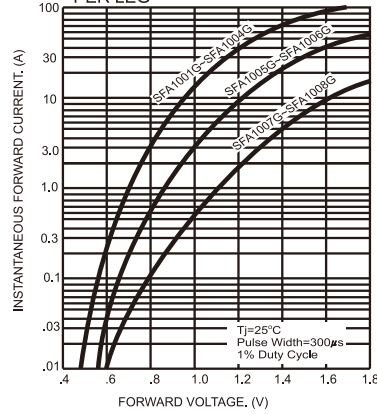


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

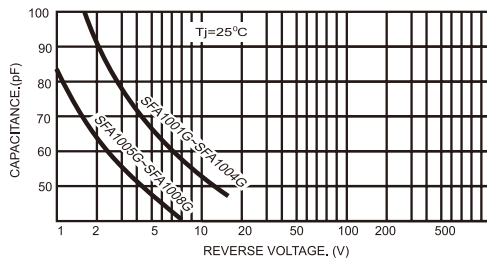


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

