

SFF2001G - SFF2008G

20.0AMPS Isolated Glass Passivated Super Fast Rectifier

ITO-220AB



RoHS
COMPLIANCE

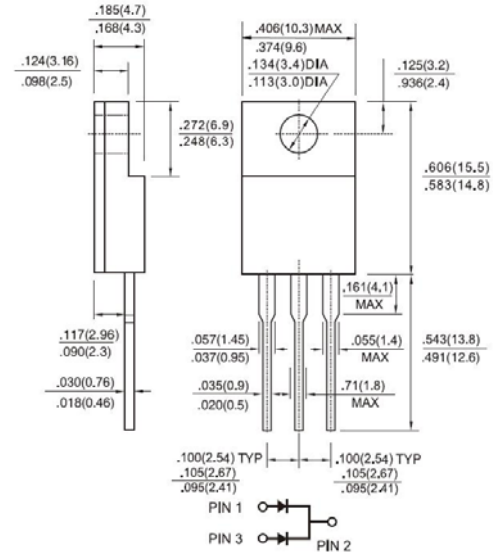


Features

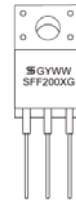
- UL Recognized File # E-326243
- High efficiency, low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss
- For use in low voltage, high frequency inverter, Free wheeling, and polarity protection application
- Green compound with suffix "G" on packing code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

Mechanical Data

- Case: ITO-220AB 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: 260°C/10 seconds/.16" (4.06mm) from case
- Weight: 1.75 grams



Dimensions in inches and (millimeters)



Marking Diagram

- SFF200XG = 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	SFF 2001G	SFF 2002G	SFF 2003G	SFF 2004G	SFF 2005G	SFF 2006G	SFF 2007G	SFF 2008G	Unit
Maximum Repetitive 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℃	I _{F(AV)}	20								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150								A
Maximum Instantaneous Forward Voltage (Note 1) @ 10A	V _F	0.975				1.3		1.7		V
Maximum Reverse Current @ Rated VR T _A =25 ℃ T _A =125 ℃	I _R	10 400								uA
Maximum Reverse Recovery Time (Note 2)	T _{rr}	35								nS
Typical Junction Capacitance (Note 3)	C _j	90								pF
Typical Thermal Resistance	R _{θJC}	2.5								°C/W
Operating Temperature Range	T _J	- 65 to + 150								°C
Storage Temperature Range	T _{STG}	- 65 to + 150								°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Version:E11

RATINGS AND CHARACTERISTIC CURVES (SFF2001G THRU SFF2008G)

FIG.1 FORWARD CURRENT DERATING CURVE

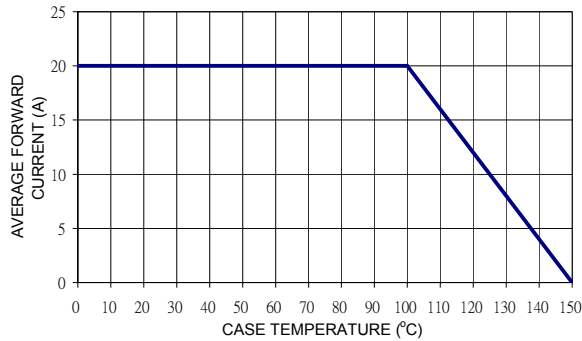


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

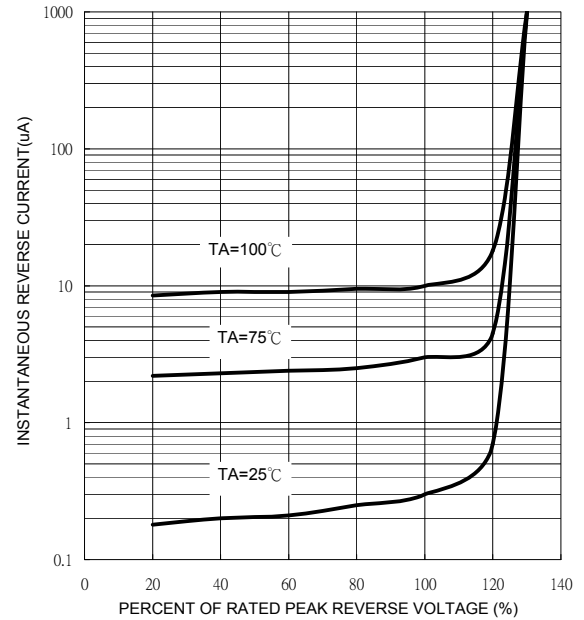


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

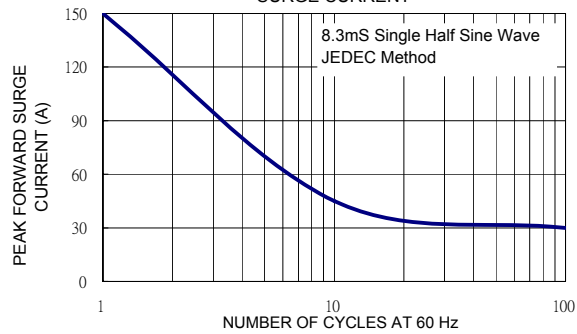


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

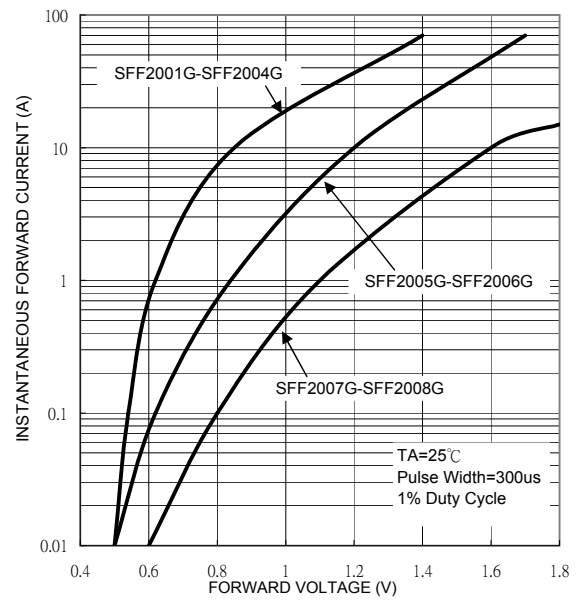


FIG. 4 TYPICAL JUNCTION CAPACITANCE

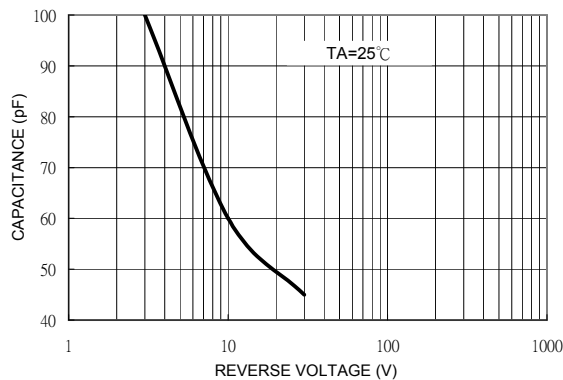


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

