

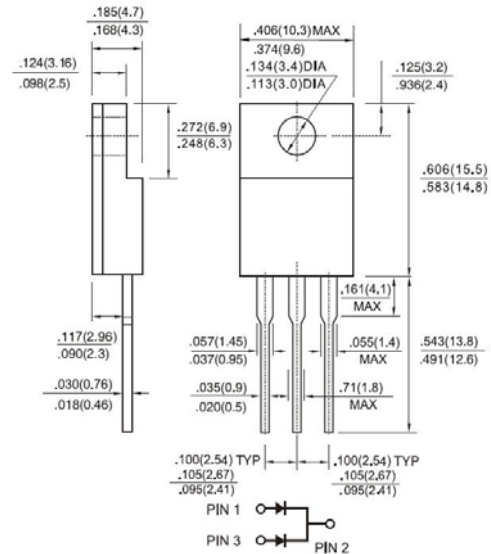


Features

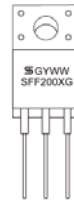
- ✧ UL Recognized File # E-326243
- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ For use in low voltage, high frequency inverter, Free wheeling, and polarity protection application
- ✧ Green compound with suffix "G" 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"(.406mm) 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	SFF	SFF	SFF	SFF	SFF	SFF	SFF	Unit	
		2001G	2002G	2003G	2004G	2005G	2006G	2007G	2008G		
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 @ $T_C=100^\circ C$	$I_{F(AV)}$	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 $T_A=25^\circ C$ $T_A=125^\circ C$	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	$R_{\theta JC}$	2.5									$^\circ C/W$
Operating Temperature Range	T_J	- 65 to + 150									$^\circ C$
Storage Temperature Range	T_{STG}	- 65 to + 150									$^\circ C$

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.

RATINGS AND CHARACTERISTIC CURVES (SFF2001G THRU SFF2008G)

FIG.1 FORWARD CURRENT DERATING CURVE

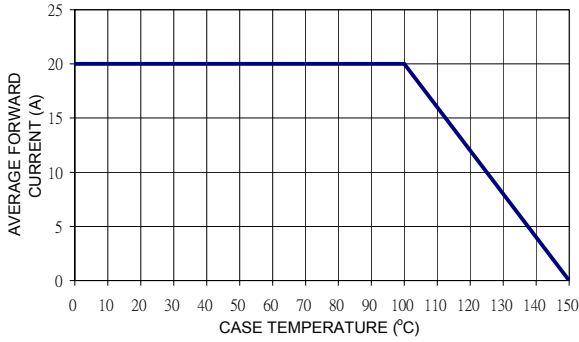


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

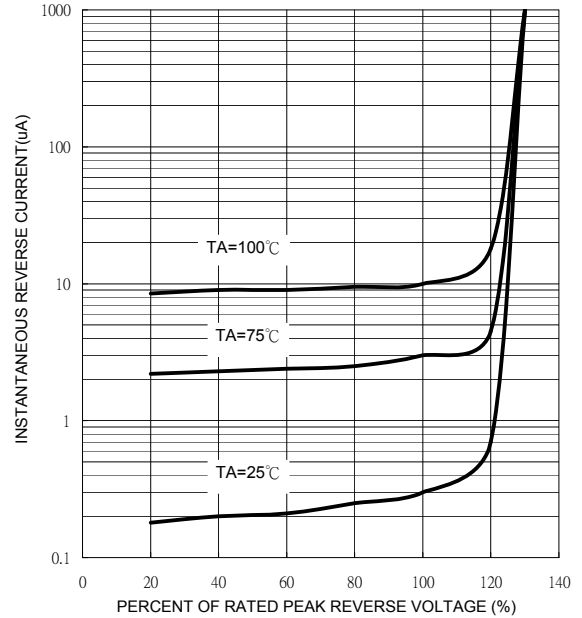


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

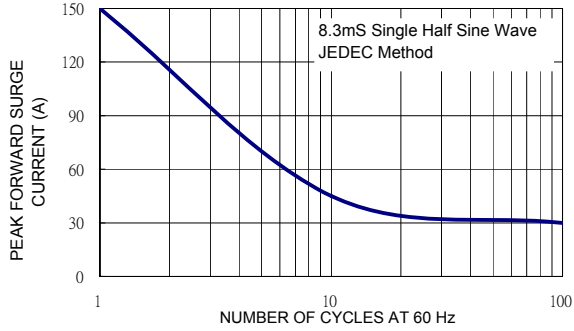


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

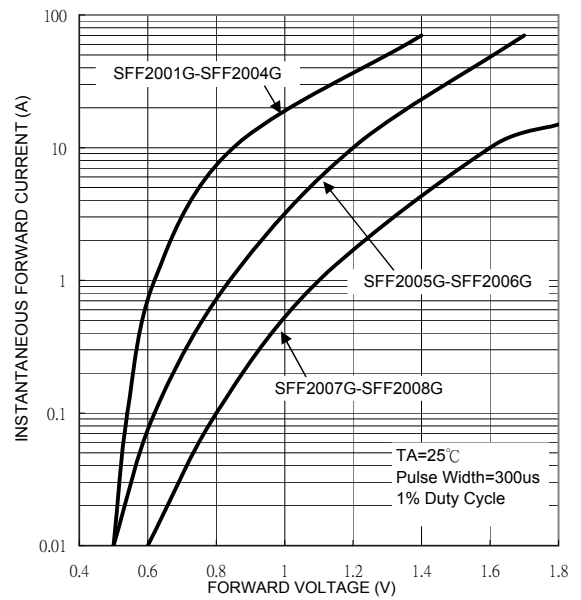


FIG. 4 TYPICAL JUNCTION CAPACITANCE

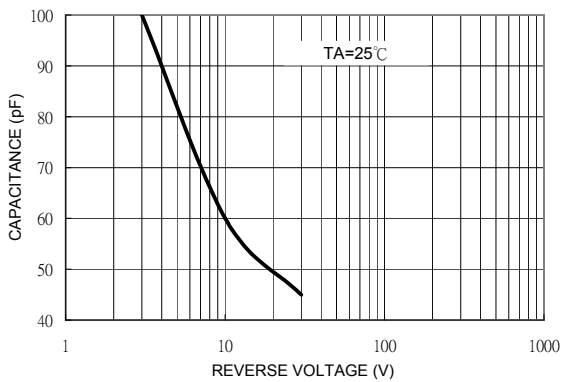


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

