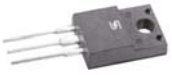
TAIWAN SEMICONDUCTOR

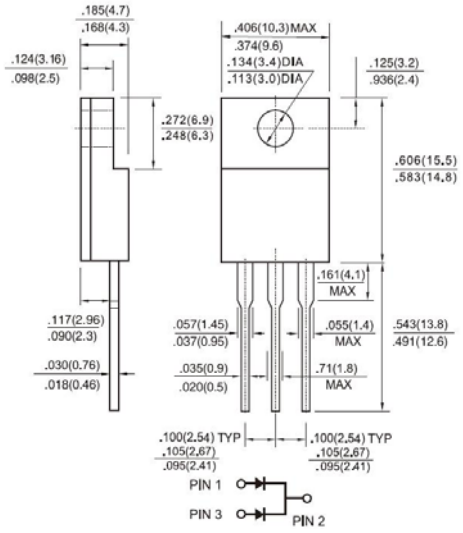
SFF1001G - SFF1008G

10.0AMPS Isolated Glass Passivated Super Fast Rectifier

ITO-220AB

RoHS COMPLIANCE





Dimensions in inches and (millimeters)

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

- ✧ 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℃/10 seconds/.16",(4.06mm) from case
- ✧ Weight: 1.71 grams
- ✧ Mounting torque: 5 in - lbs. max.



Marking Diagram

SFF100XG	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ 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 1001G	SFF 1002G	SFF 1003G	SFF 1004G	SFF 1005G	SFF 1006G	SFF 1007G	SFF 1008G	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℃	$I_{F(AV)}$	10								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125								A
Maximum Instantaneous Forward Voltage (Note 1) @ 5A	V_F	0.975				1.3		1.7		V
Maximum Reverse Current @ Rated VR T_A=25 ℃ T_A=100 ℃	I_R	10 400								uA
Maximum Reverse Recovery Time (Note 2)	Trr	35								nS
Typical Junction Capacitance (Note 3)	Cj	70				50				pF
Typical Thermal Resistance	$R_{\theta jC}$	2								°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.

TAIWAN SEMICONDUCTOR

RATINGS AND CHARACTERISTIC CURVES (SFF1001G THRU SFF1008G)

FIG.1 FORWARD CURRENT DERATING CURVE

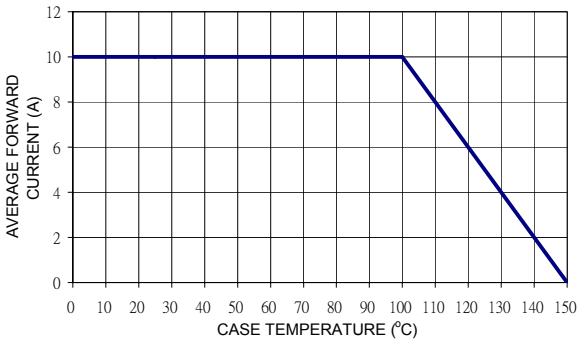


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

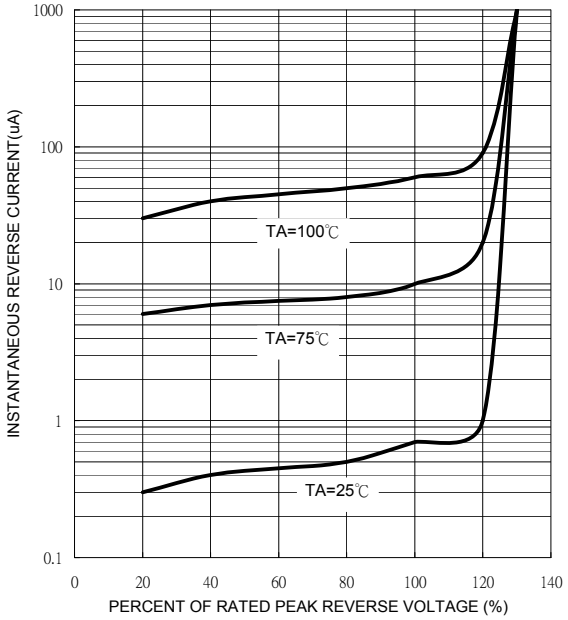


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

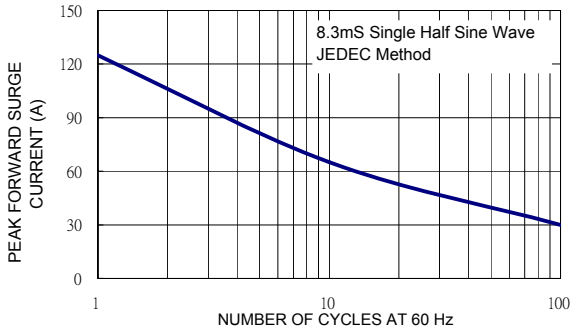


FIG. 5 TYPICAL FORWARD CHARACTERISRICS

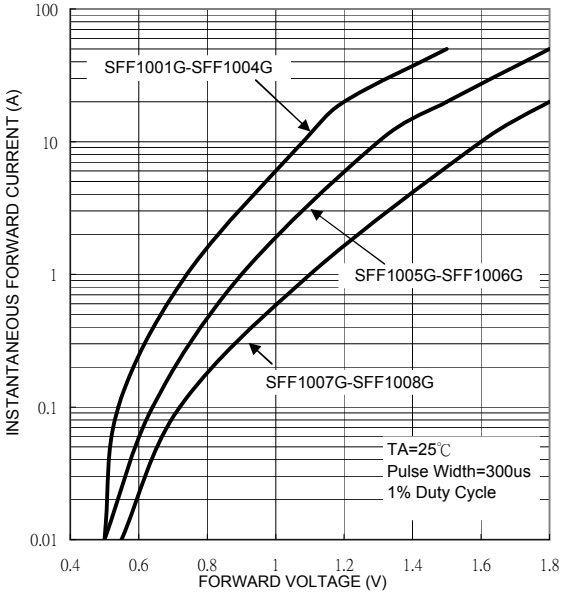


FIG. 4 TYPICAL JUNCTION CAPACITANCE

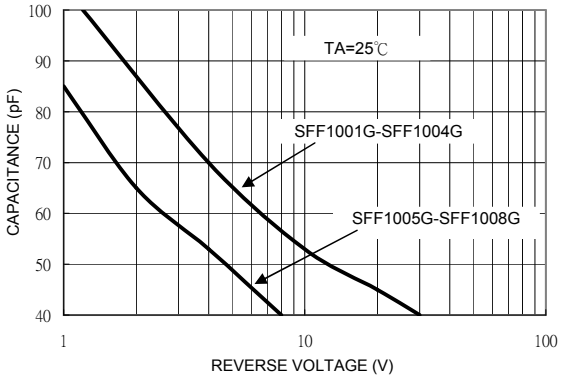


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

