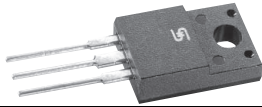




# SFF1001G THRU SFF1008G

Isolation 10.0 AMPS. Glass Passivated Super Fast Rectifiers



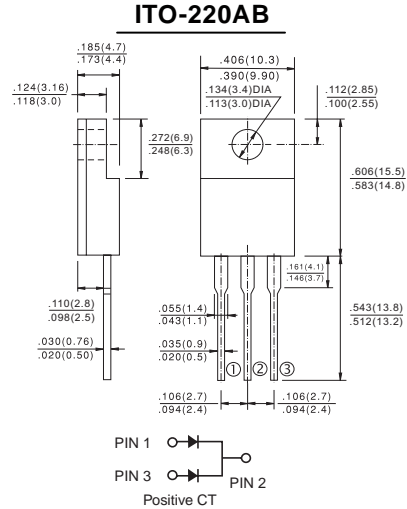
Voltage Range  
50 to 600 Volts  
Current  
10.0 Amperes

## Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

## Mechanical Data

- ✧ Case: ITO-220AB molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Terminals: Leads 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: 2.24 grams
- ✧ Mounting torque: 5 in – 1bs. max.



**Dimensions in inches and (millimeters)**

## 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 1001G	SFF 1002G	SFF 1003G	SFF 1004G	SFF 1005G	SFF 1006G	SFF 1007G	SFF 1008G	Units
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	480	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_C = 100^\circ C$	$I_{(AV)}$	10.0								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 @ 5.0A	$V_F$	0.975				1.3		1.7		V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	$I_R$	10.0				400				$\mu A$ $\mu A$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35								nS
Typical Junction Capacitance (Note 2)	$C_j$	70				50				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	5.0								$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to +150								$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to +150								$^\circ C$

Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Thermal Resistance from Junction to Case Mounted on Heatsink.

## RATINGS AND CHARACTERISTIC CURVES (SFF1001G THRU SFF1008G)

FIG. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

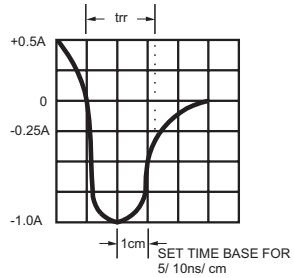
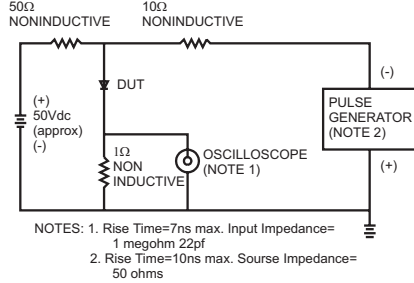


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

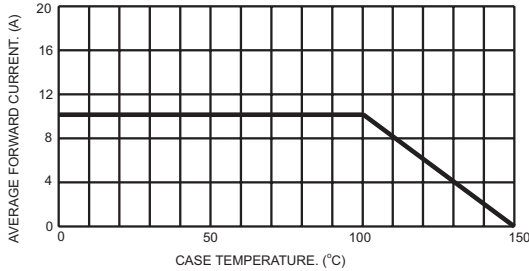


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

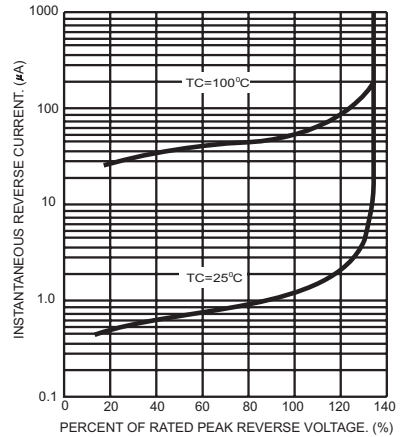


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

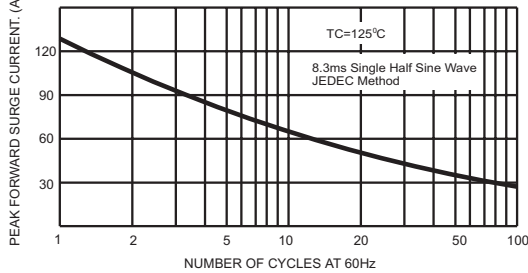


FIG. 6- TYPICAL FORWARD CHARACTERISTICS PER LEG

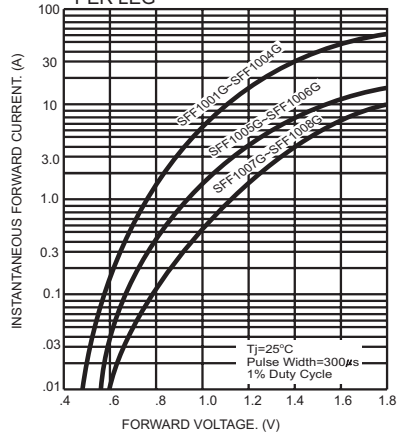


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG

