



# SFF2004G THRU SFF2005G

Isolation 20.0 AMPS. Glass Passivated Super Fast Rectifiers



Voltage Range  
200 to 300 Volts  
Current  
20.0 Amperes

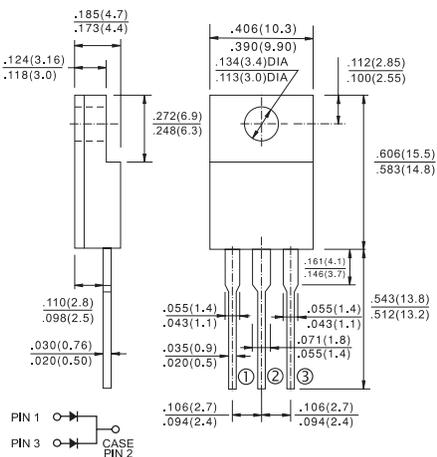
## Features

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

## Mechanical Data

- ✧ Cases: ITO-220AB Molded plastic
- ✧ Epoxy: UL 94V-0 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

## ITO-220AB



## 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	SFF2004G	SFF2005G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	300	V
Maximum RMS Voltage	$V_{RMS}$	140	210	V
Maximum DC Blocking Voltage	$V_{DC}$	200	300	V
Maximum Average Forward Rectified Current @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	20.0		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	180		A
Maximum Instantaneous Forward Voltage @ 10.0A	$V_F$	0.975	1.30	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	$I_R$	10 400		$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35		nS
Typical Junction Capacitance (Note 2)	$C_j$	90		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2.5		$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +150		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150		$^\circ\text{C}$

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

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 (SFF2004G THRU SFF2005G)

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

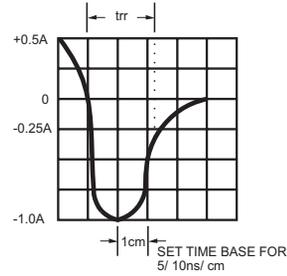
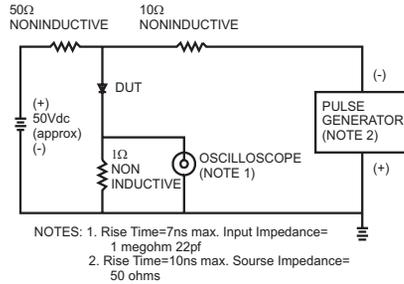


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

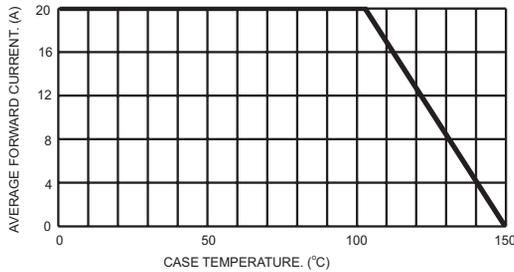


FIG.3- TYPICAL REVERSE CHARACTERISTICS

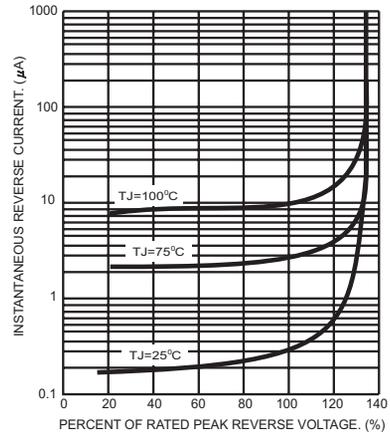


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

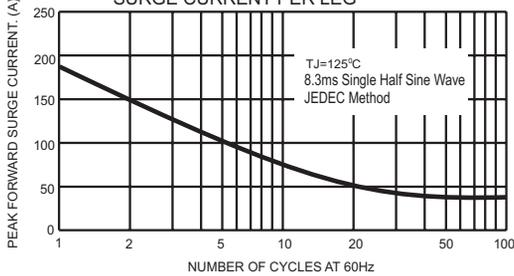


FIG.6- TYPICAL FORWARD CHARACTERISTICS PER LEG

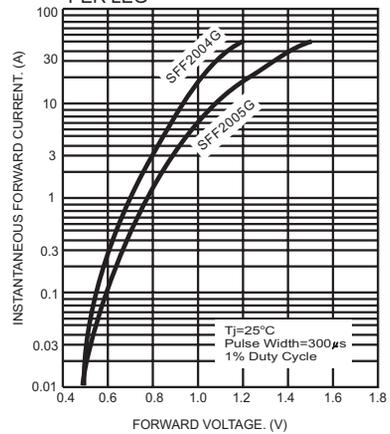


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

