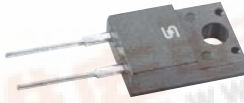




# FRAF1001G THRU FRAF1007G

Isolation 10 AMPS. Glass Passivated Fast Recovery Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
10 Amperes

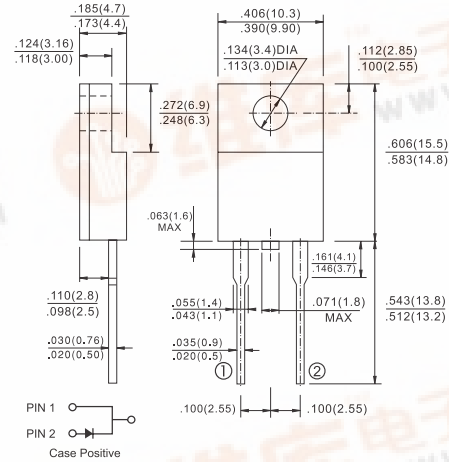
## Features

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

## Mechanical Data

- ✧ Cases: ITO-220AC 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 0.25", (6.35mm) from case.
- ✧ Mounting position: Any
- ✧ Weight: 2.24 grams
- ✧ Mounting torque: 5 in – lbs. max.

## ITO-220AC



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	FRAF 1001G	FRAF 1002G	FRAF 1003G	FRAF 1004G	FRAF 1005G	FRAF 1006G	FRAF 1007G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 55^\circ C$	$I_{(AV)}$	10							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 @ 10A	$V_F$	1.3							V
Maximum DC Reverse Current @ $T_C = 25^\circ C$ at Rated DC Blocking Voltage @ $T_C = 125^\circ C$	$I_R$	5.0 100							$\mu A$ $\mu A$
Maximum Reverse Recovery Time ( Note 2 )	$T_{rr}$	150				250	500		nS
Typical Junction Capacitance ( Note 1 ) $T_J = 25^\circ C$	$C_j$	100							pF
Typical Thermal Resistance ( Note 3 )	$R_{\theta JC}$	5.0							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150							$^\circ C$

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

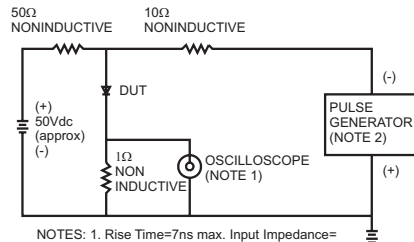
2. Reverse Recovery Test Conditions:  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$

3. Thermal Resistance from Junction to Case, with Heatsink size 2" x 3" x 0.25" Al-Plate



## RATINGS AND CHARACTERISTIC CURVES (FRAF1001G THRU FRAF1007G)

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



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance=50 ohms

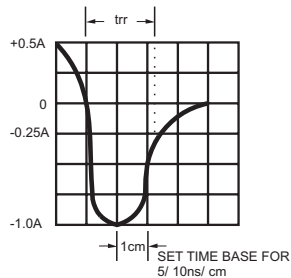


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

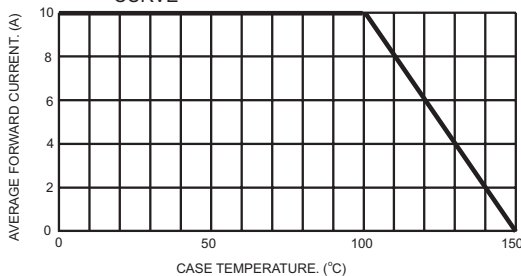


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

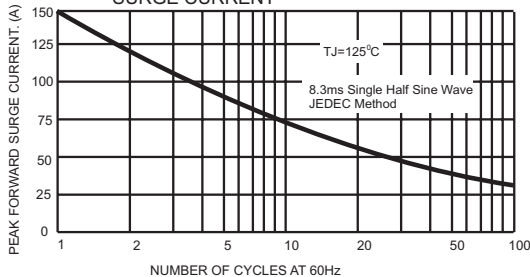


FIG.4- TYPICAL JUNCTION CAPACITANCE

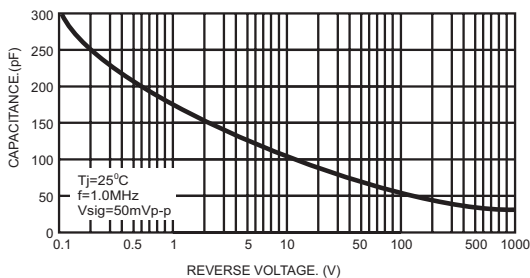


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

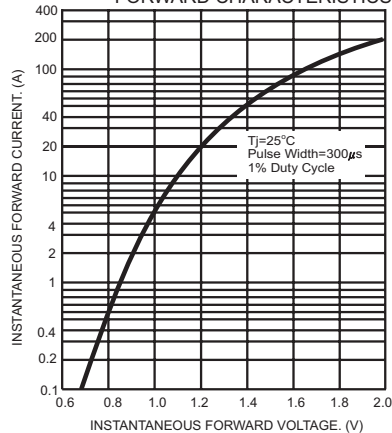


FIG.6- TYPICAL REVERSE CHARACTERISTICS

