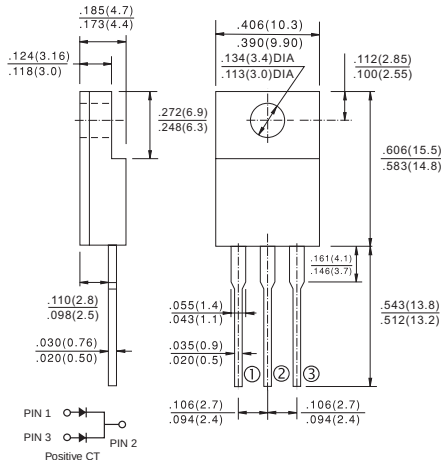


TSC 	FRF1001G THRU FRF1007G Isolation 10 AMPS. Glass Passivated Fast Recovery Rectifiers										
		Voltage Range 50 to 1000 Volts Current 10 Amperes									
Features ✧ Low forward voltage drop ✧ High current capability ✧ High reliability ✧ High surge current capability		ITO-220AB  Dimensions in inches and (millimeters)									
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 0.25", (6.35mm) from case. ✧ Mounting position: Any ✧ Weight: 2.24 grams ✧ Mounting torque: 5 in – 1bs. max.											
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	FRF 1001G	FRF 1002G	FRF 1003G	FRF 1004G	FRF 1005G	FRF 1006G	FRF 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		I _(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 @ 5.0A		V _F	1.3							V	
Maximum DC Reverse Current @ T _C =25°C at Rated DC Blocking Voltage @ T _C =125°C		I _R	5.0 100							uA uA	
Maximum Reverse Recovery Time (Note 1)		T _{rr}	150				250	150		nS	
Typical Thermal Resistance (Note 2)		R _{θJC}	5.0							°C/W	
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +150							°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. Thermal Resistance from Junction to Case Per Leg Mounted on Heatsink size 2" x 3" x 0.25" Al-Plate

RATINGS AND CHARACTERISTIC CURVES (FRF1001G THRU FRF1007G)

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

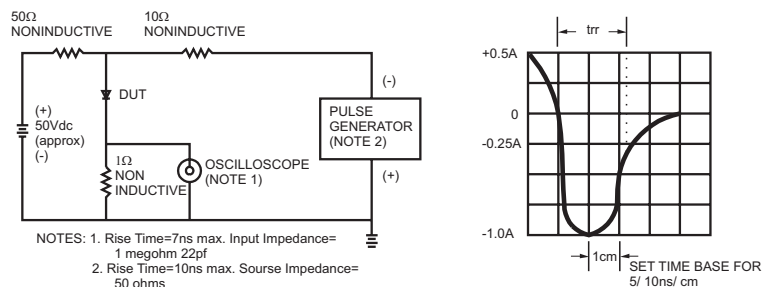


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

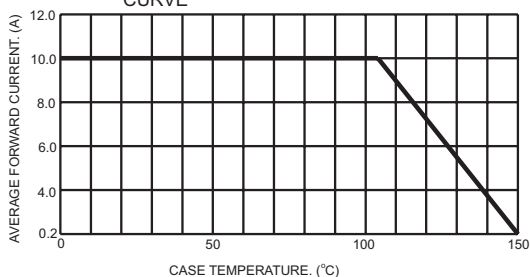


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

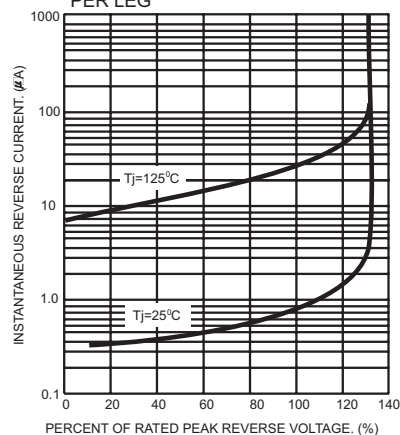


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

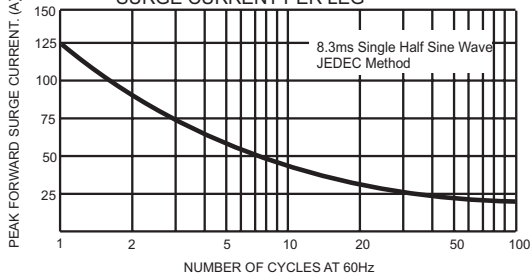


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

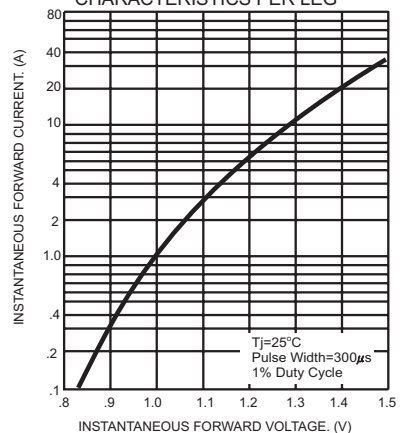


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

