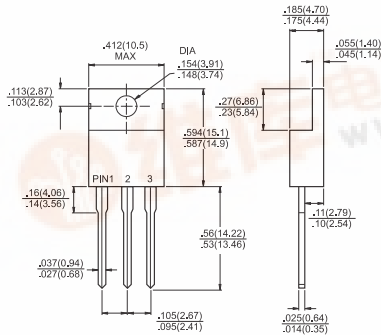
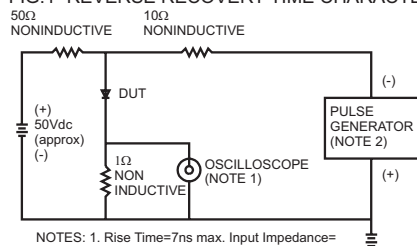


TSC S	SF1001G THRU SF1008G 10.0 AMPS. Glass Passivated Super Fast Rectifiers										
		Voltage Range 50 to 600 Volts Current 10.0 Amperes									
Features ✧ Low forward voltage drop ✧ High current capability ✧ High reliability ✧ High surge current capability		TO-220  PIN 1 PIN 3 CASE PIN 2 Positive CT Dimensions in inches and (millimeters)									
Mechanical Data ✧ Case: 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											
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	SF 1001G	SF 1002G	SF 1003G	SF 1004G	SF 1005G	SF 1006G	SF 1007G	SF 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°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°C at Rated DC Blocking Voltage @ T _A =100°C	I _R	10.0 400								uA uA	
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 θ _{JC}	3.5								°C/W	
Operating Temperature Range	T _J	-65 to +150								°C	
Storage Temperature Range	T _{STG}	-65 to +150								°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. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-plate..

RATINGS AND CHARACTERISTIC CURVES (SF1001G THRU SF1008G)

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

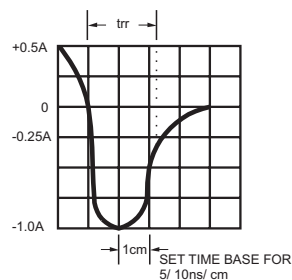


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

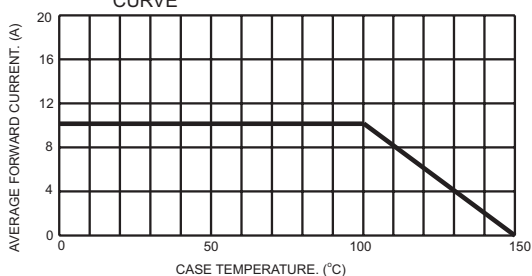


FIG.3- TYPICAL REVERSE CHARACTERISTICS

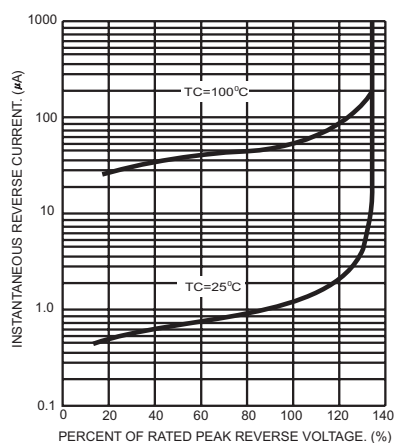


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

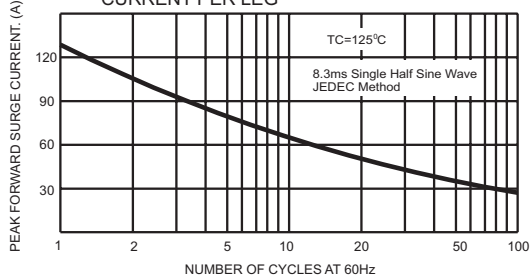


FIG.6- TYPICAL FORWARD CHARACTERISTICS PER LEG

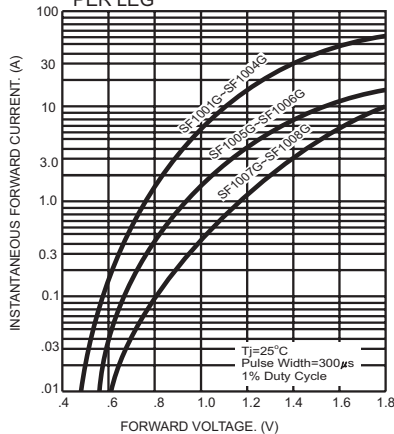


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

