



SF1001G THRU SF1008G

10.0 AMPS. Glass Passivated Super Fast Rectifiers



Voltage Range
50 to 600 Volts
Current
10.0 Amperes

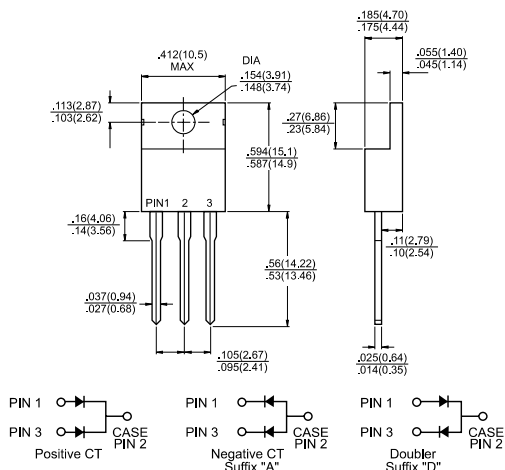
Features

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

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: 250°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams

TO-220



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	SF 1001G	SF 1002G	SF 1003G	SF 1004G	SF 1005G	SF 1006G	SF 1007G	SF 1008G	Units
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	35	70	105	140	210	280	350	480	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ T _C = 100°C	10.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	125								A
Maximum Instantaneous Forward Voltage @ 5.0A	0.975				1.3		1.7		V
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C	10.0 400								uA uA
Maximum Reverse Recovery Time (Note 1)	35								nS
Typical Junction Capacitance (Note 2)	70				50				pF
Typical Thermal Resistance RθJC (Note 3)	3.0								°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. Thermal Resistance from Junction to Case Mounted on Heatsink.

RATINGS AND CHARACTERISTIC CURVES (SF1001G THRU SF1008G)

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

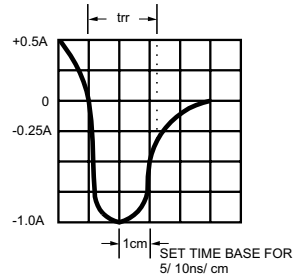
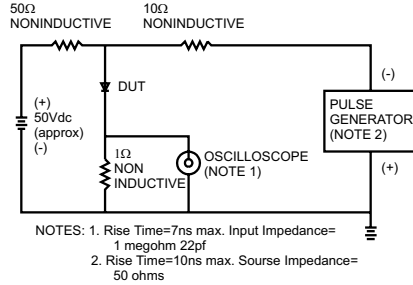


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

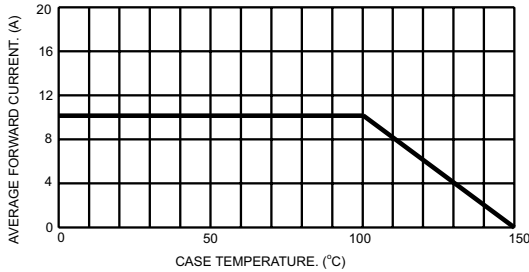


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

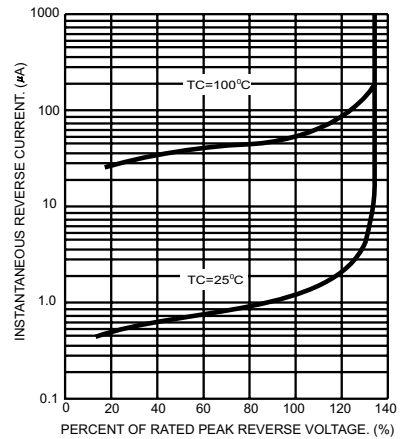


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

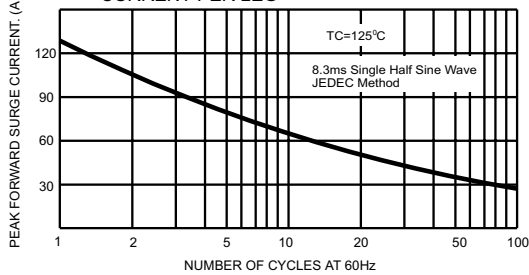


FIG. 6- TYPICAL FORWARD CHARACTERISTICS PER LEG

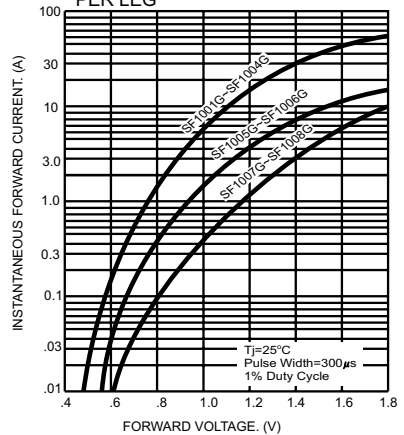


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG

