# SFF101 THRU SFF107

10.0 AMP SUPER FAST RECTIFIERS

GW



## FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Good for switching mode application

## MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Lead solderable per MIL-STD-202, method 208 guranteed
* Polarity: As Marked
* Mounting position: Any

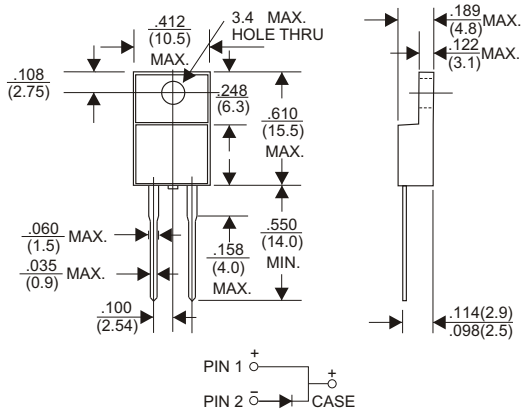
VOLTAGE RANGE

50 to 600 Volts

CURRENT

10.0 Amperes

**ITO-220A(FULLY INSULATED)**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

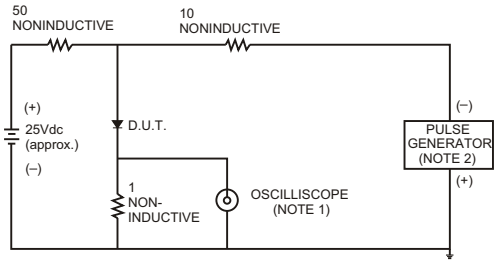
Rating 25°C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | SFF101 | SFF102 | SFF103 | SFF104 | SFF105 | SFF106 | SFF107 | UNITS |
|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current at Tc=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 at 10.0A | 1.0 | | | | 1.3 | | 1.7 | V |
| Maximum DC Reverse Current Tc=25°C | 10 | | | | | | | μA |
| at Rated DC Blocking Voltage Tc=100°C | 500 | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | 35 | | | | 50 | | | nS |
| Typical Junction Capacitance (Note 2) | 60 | | | | | | | PF |
| Typical Thermal Resistance RθJC | 3.0 | | | | | | | °C/W |
| Operating and Storage Temperature Range $T_J$, $T_{STG}$ | -65 — +150 | | | | | | | °C |

**NOTES:**
1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATING AND CHARACTERISTIC CURVES (SFF101 THRU SFF107)

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




NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

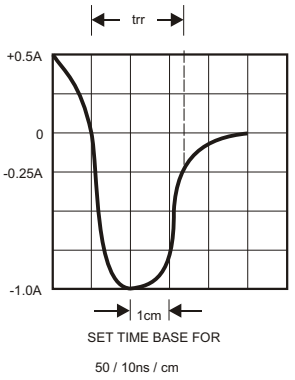



FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

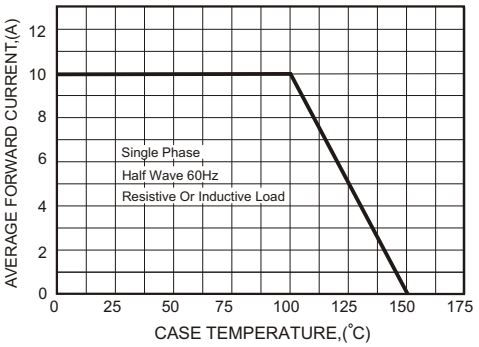



FIG.3-TYPICAL FORWARD CHARACTERISTICS

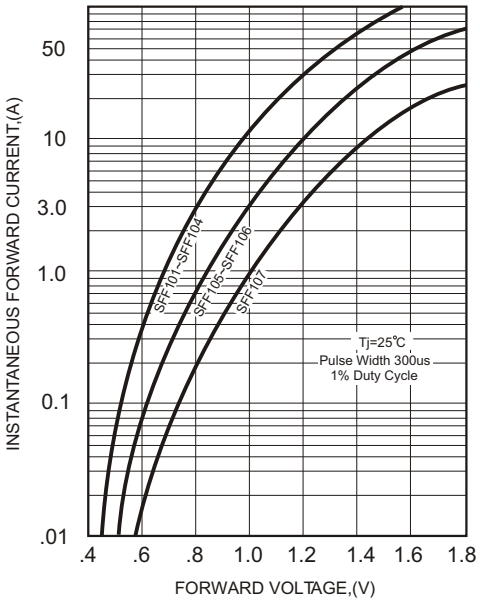



FIG.4-TYPICAL REVERSE CHARACTERISTICS

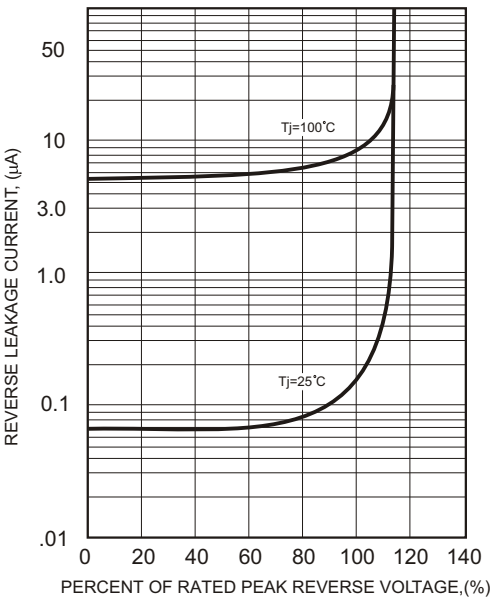



FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

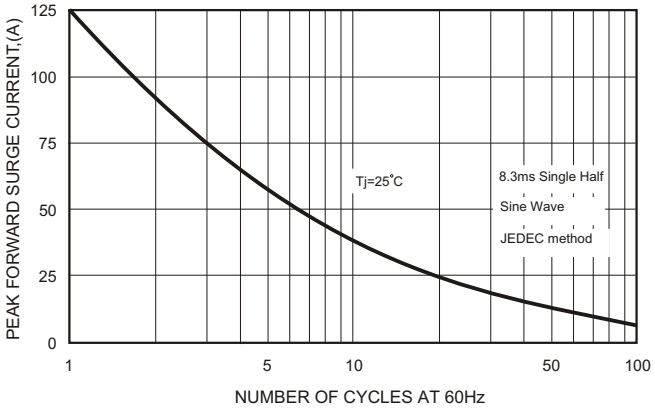



FIG.6-TYPICAL JUNCTION CAPACITANCE

