



**Glass Passivated Super Fast Rectifiers**  
**Reverse Voltage 50 to 600 Volts Forward Current 8.0 Amperes**

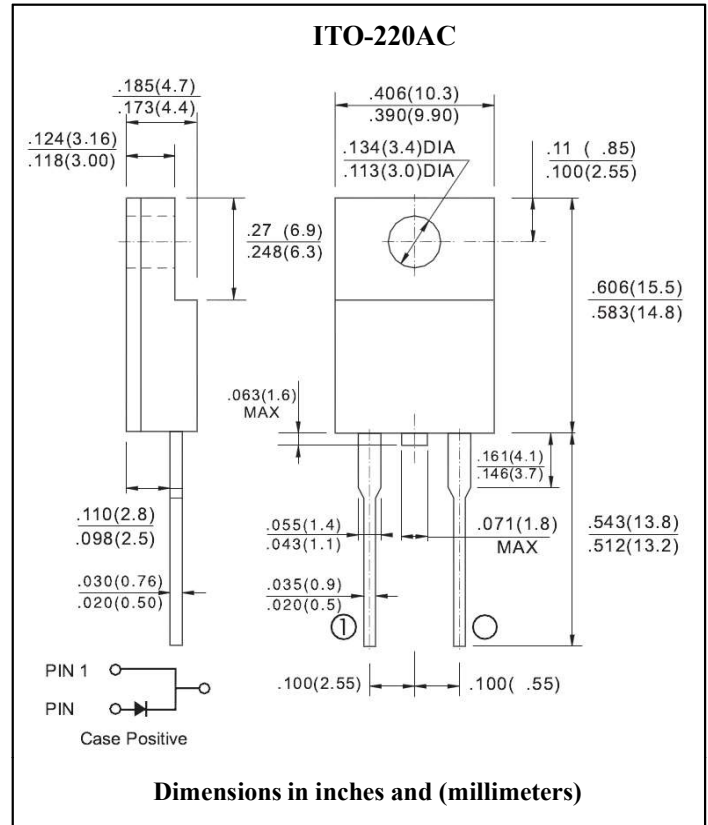
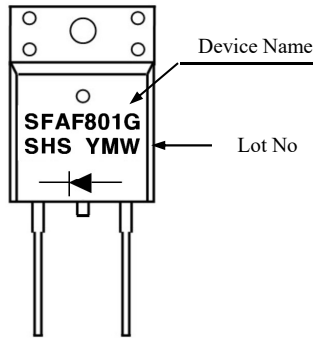
**Features**

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

**Mechanical Data**

- Case : ITO-220AC Molded plastic
- Epoxy : UL 94V-O rate flame retardant
- Lead : 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
- Weight : 2.24 grams
- Mounting torque : 5 in-lbs. max.

**Marking**



**Maximum Ratings & Electrical Characteristics**

Ratings 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%

Parameter	Symbol	SFAF 801G	SFAF 802G	SFAF 803G	SFAF 804G	SFAF 805G	SFAF 806G	SFAF 807G	SFAF 808G	Unit	Remark
Maximum Repetitive 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	420	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current	$I_F(AV)$	8.0								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 @ 8.0A	$V_F$	0.975			1.3		2.0			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10.0								uA	Ta=25°C
		400								uA	Ta=100°C
Maximum Reverse Recovery Time	trr	35								ns	Note 1
Typical Junction Capacitance	$C_J$	90				60				pF	Note 2
Typical Thermal Resistance	Rth(j-c)	4.0								°C /W	Note 3
Operation Junction Temperature Range	$T_J$	-55 to +150								°C	
Storage Temperature Range	$T_{STG}$	-55 to +150								°C	

Note 1. Reverse Recovery Test Conditions :  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

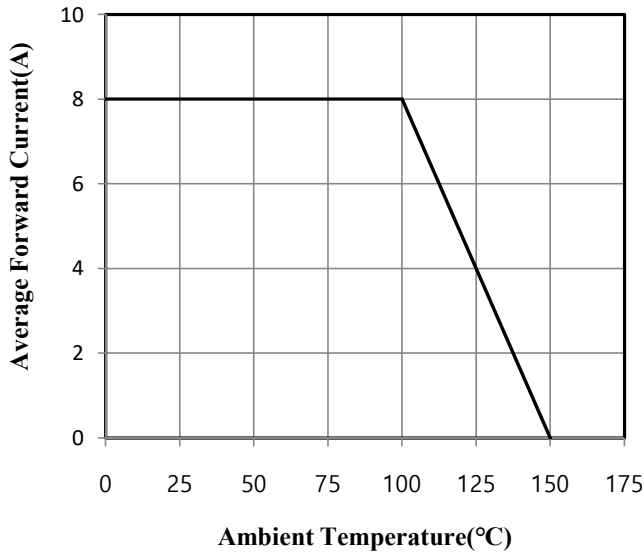
Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Mount on Heatsink Size of 2in × 3in × 0.25 in Al-Plate.

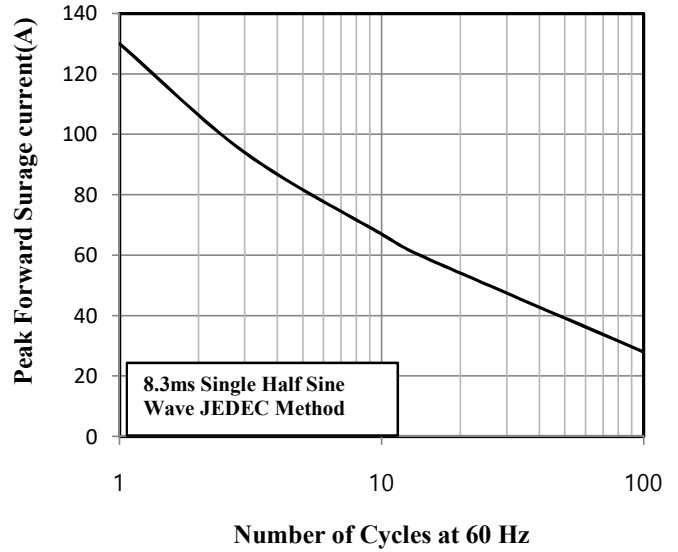


Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

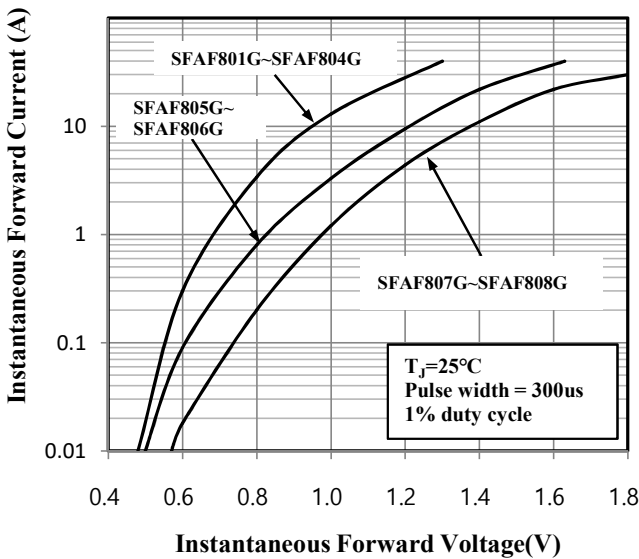
**Fig.1 Forward Current Derating Curve**



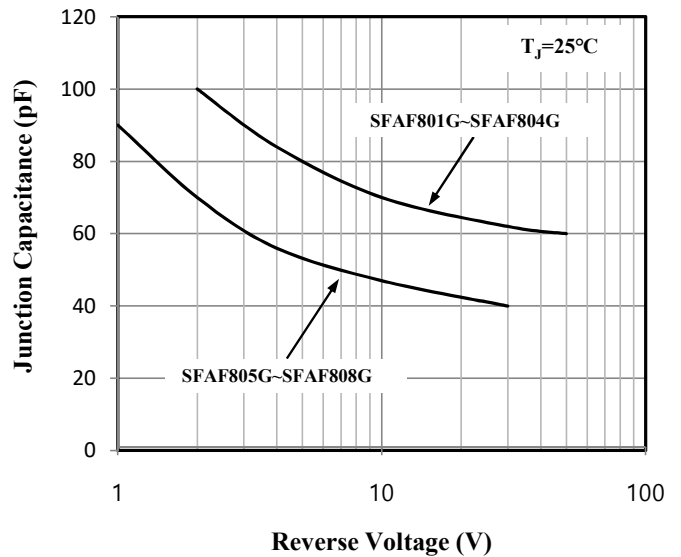
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



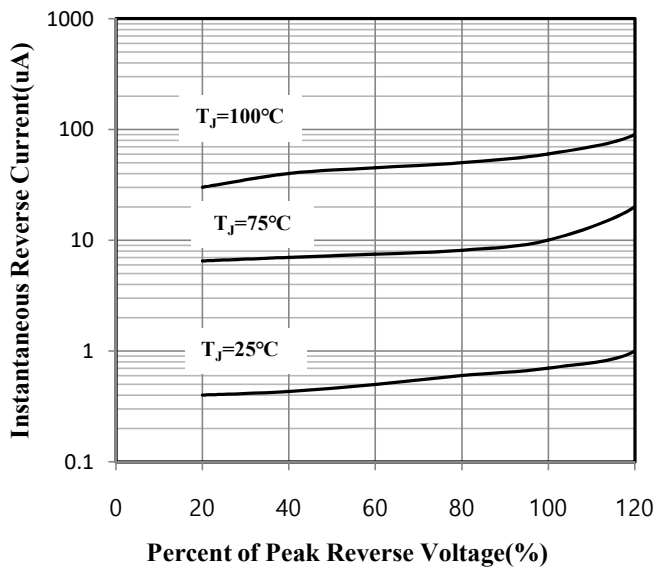
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Typical Reverse Characteristics**



**Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram**

