

Glass Passivated Super Fast Rectifiers
Reverse Voltage 50 to 600 Volts Forward Current 16 Amperes

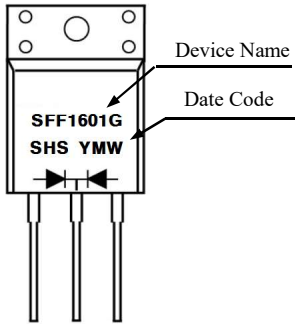
Features

- Low Forward Voltage.
- Low Switching noise.
- High Current Capability
- Low Power Loss & High efficiency.
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application

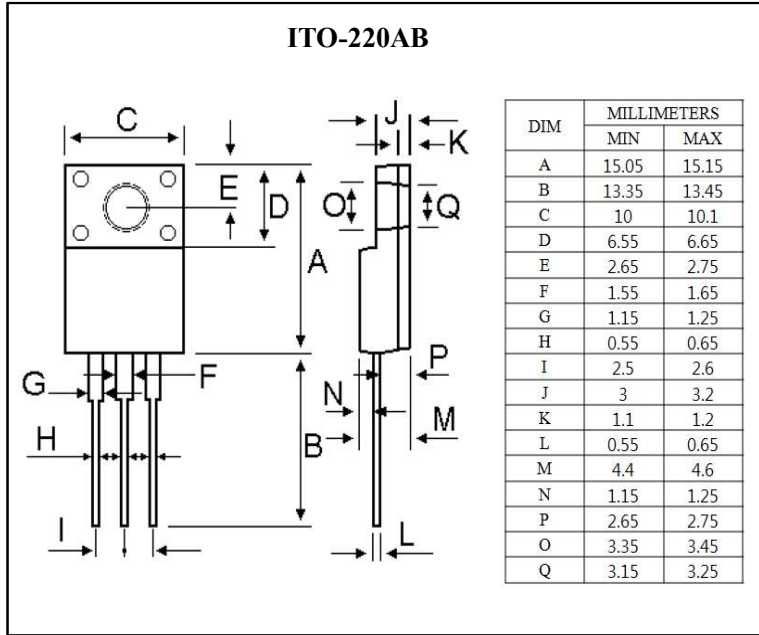
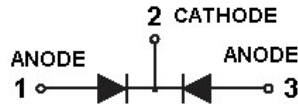
Mechanical Data

- Case :JEDEC ITO-220AB molded plastic body
- Epoxy : UL 94V-0 rate flame retardant
- Termals: Pure tin plated , lead free. solderable per MIL-STD-202, Method 208 quaranted
- High temperature soldering guaranteed:260°C/10 seconds 0.25",(6.35mm) from case.
- Polarity:As marked
- Mounting Torque: 4-6kg.cm
- Weight:2.24 g approx.

Marking



Equivalent Circuit



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	SFF	SFF	SFF	SFF	SFF	SFF	SFF	SFF	Unit	Remark
		1601G	1602G	1603G	1604G	1605G	1606G	1607G	1608G		
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	$I_F(AV)$	16								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	V_F	0.975			1.3		1.7			V	$I_F=8.0A$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10								uA	$T_a=25^\circ C$
		400								uA	$T_a=100^\circ C$
Maximum Reverse Recovery Time	t_{rr}	35								ns	Note 1
Typical Junction Capacitance	C_J	80				50				pF	Note 2
Typical Thermal Resistance	$R_{th(j-c)}$	1.5								°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

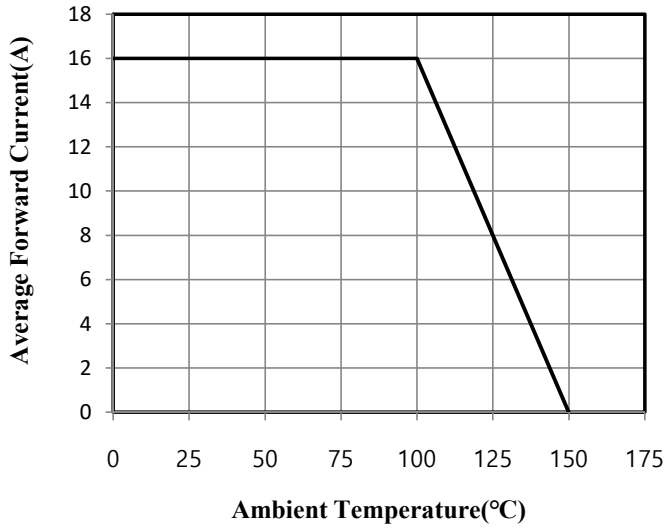


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

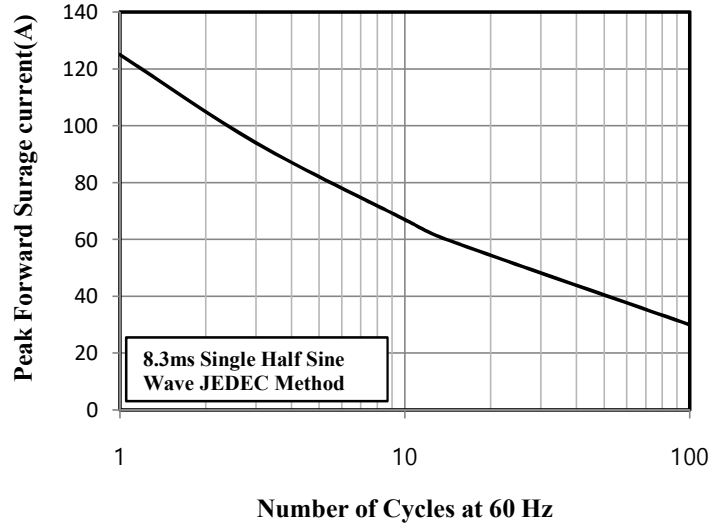


Fig.3 Typical Instantaneous Forward Characteristics

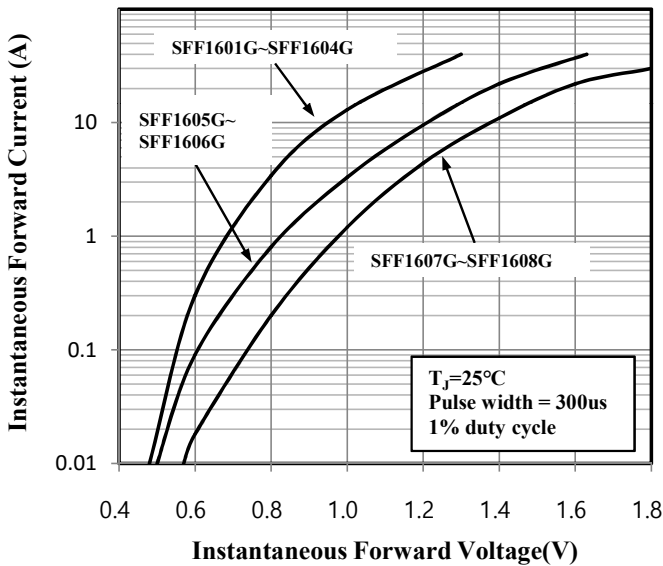


Fig.4 Typical Junction Capacitance

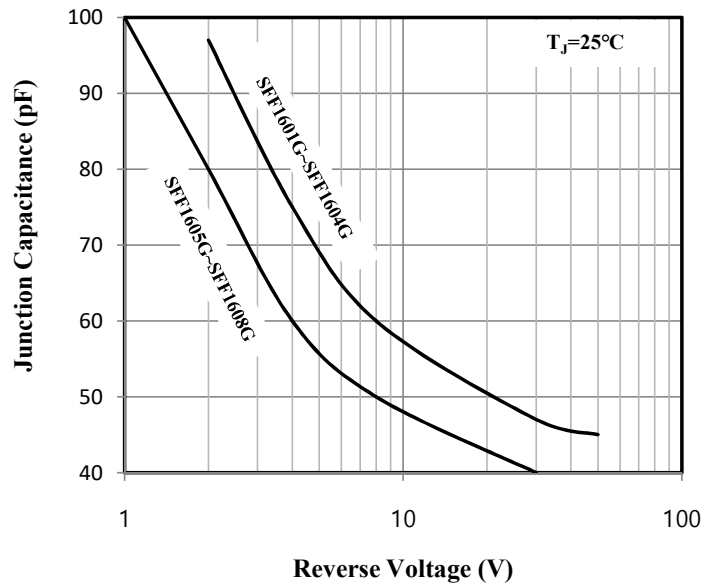


Fig.5 Typical Reverse Characteristics

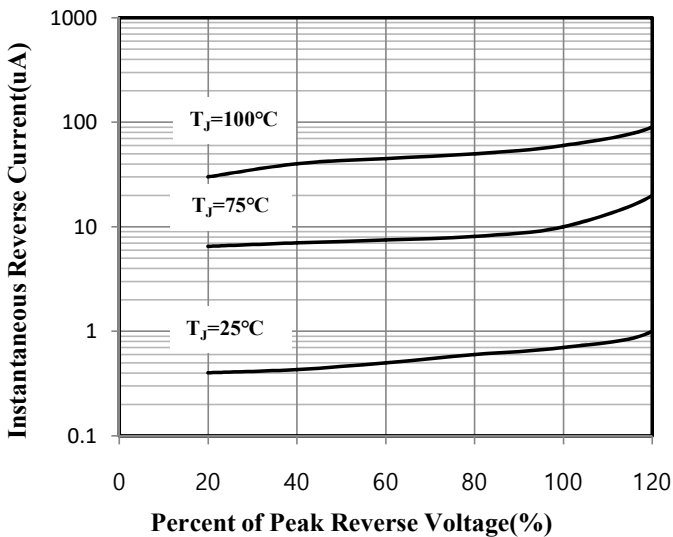


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

