

### Features

- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ For use in low voltage, high frequency inverter, Free wheeling, and polarity protection application



### Mechanical Data

- ✧ Case: ITO-220AB Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering: 260°C/10 seconds/.16", (4.06mm) from case
- ✧ Weight: 1.77 grams
- ✧ Mounting torque: 5 in - lbs. max.

### Ordering Information (example)

Part No.	Package	Packing	Packing code	Packing code (Green)
SFF1001GA	ITO-220AB	50 / TUBE	C0	C0G

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

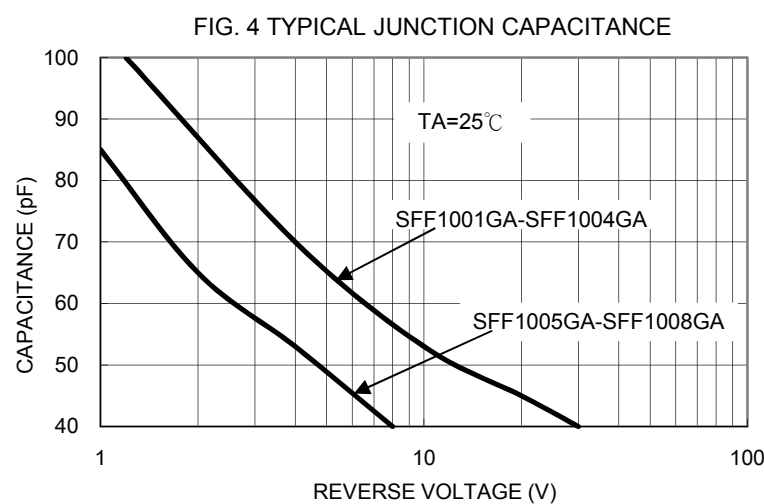
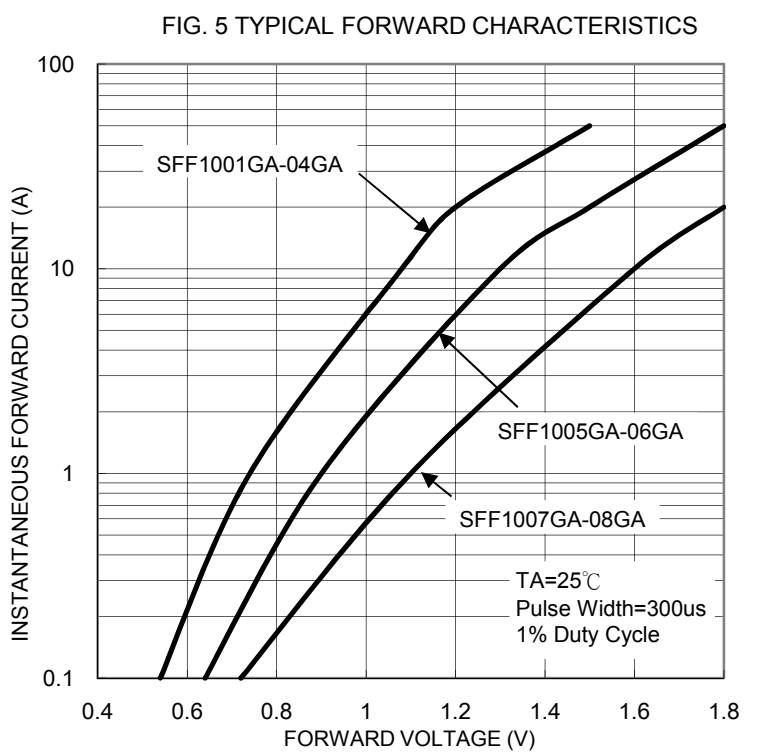
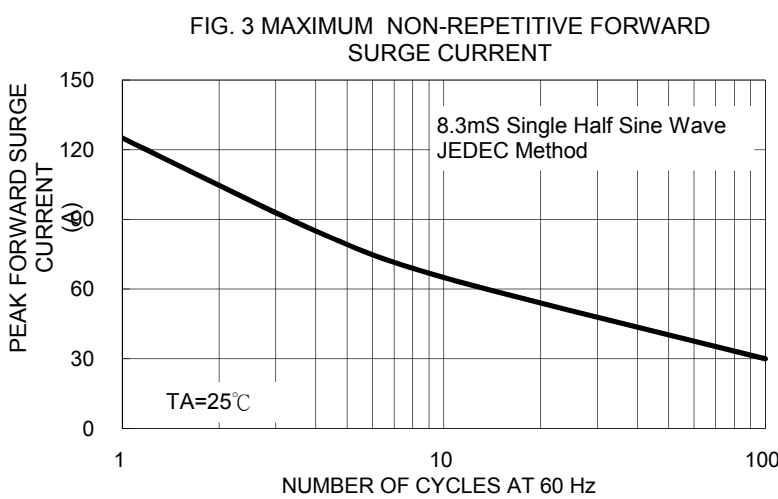
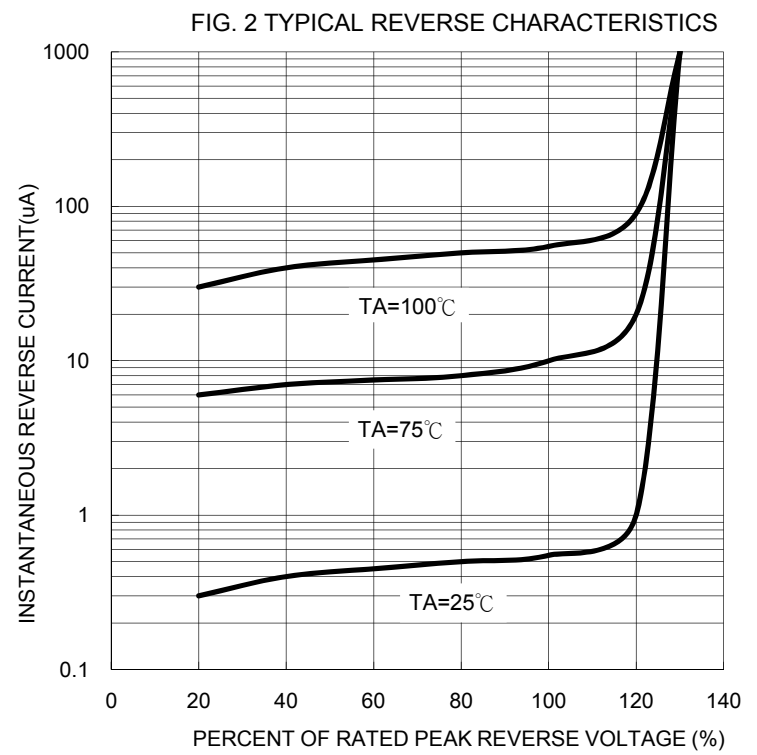
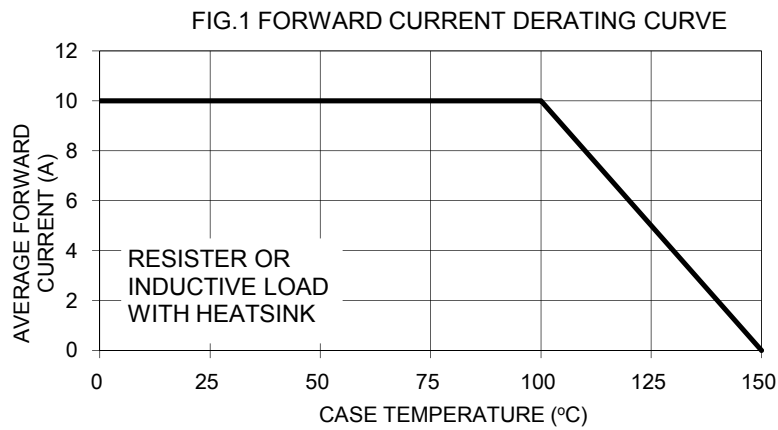
Parameter	Symbol	SFF	SFF	SFF	SFF	SFF	SFF	SFF	SFF	Unit
		1001 GA	1002 GA	1003 GA	1004 GA	1005 GA	1006 GA	1007 GA	1008 GA	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10								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 (Note 1) @ 5A	$V_F$	0.975			1.3		1.7			V
Maximum Reverse Current @ Rated VR $T_A=25\text{ }^\circ\text{C}$ $T_A=100\text{ }^\circ\text{C}$	$I_R$	10 400								$\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	35								nS
Typical Junction Capacitance (Note 3)	$C_j$	70				50				pF
Typical Thermal Resistance	$R_{\theta JC}$	8								$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	- 55 to + 150								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150								$^\circ\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SFF1001GA THRU SFF1008GA)



**FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

