Super Fast Glass Passivated Rectifier

Features

- Low power loss, high efficiency
- Low leakage
- High Surge Capacity
- Glass passivated chip junction
- Super fast switching speed
- High temperature soldering guaranteed:
  250℃/10 seconds, 0.373" (9.5mm) lead length
- Also available with reversed polarity, add an "A" suffix, i.e. SF81GR
- RoHS and REACH Compliance

Mechanical Data

Case:	Transfer molded plastic
Polarity:	As marked
Epoxy:	UL94V-0 rate flame retardant
Lead:	Solderable per MIL-STD-202E Method 208C
Mounting Position:	Any
Weight:	0.064 ounce, 1.81 gram

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	SFF 81G	SFF 82G	SFF 83G	SFF 84G	SFF 85G	SFF 86G	SFF 87G	SFF 88G	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	150	200	300	400	500	600	**V**	
VRMS	Max RMS Voltage	35	70	105	140	210	280	350	420	**V**	
VDC	Max DC Blocking Voltage	50	100	150	200	300	400	500	600	**V**	
I(AV)	Max Average Forward Rectified Current	8								**A**	TA=125℃
IFSM	Peak Forward Surge Current	150								**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150								℃	

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	SFF 81G	SFF 82G	SFF 83G	SFF 84G	SFF 85G	SFF 86G	SFF 87G	SFF 88G	Unit	Conditions
VF	Max Instantaneous Forward Voltage	0.975			1.30		1.70			**V**	8.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	10.0								**μA**	TA=25℃
		500									TA=125℃
TRR	Maximum reverse recovery time	35								**nS**	Note 1
RθJA	Typical Thermal Resistance	3								℃/W	Note 2
CJ	Typical Junction capacitance	50				30				**pF**	Measured at 1.0MHz / 4.0V

Note:

1. Reverse recovery test conditions: I_F= 0.5A, I_R=1.0A, I_{RR} = 0.25A
2. Unit mounted on heatsink

SFF81G ~ SFF88G

RATINGS AND CHARACTERISTIC CURVES SFF81G THRU SFF88G

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

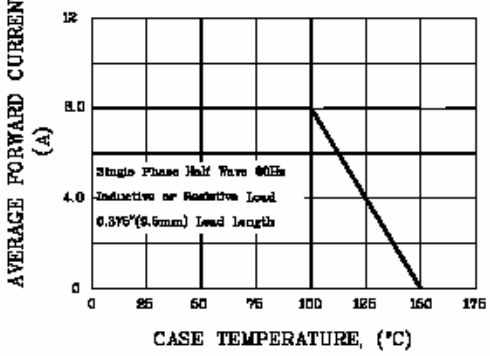


FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

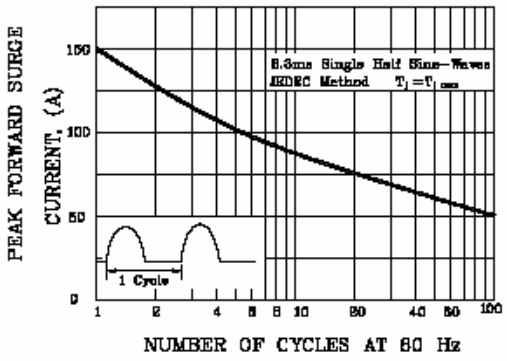


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

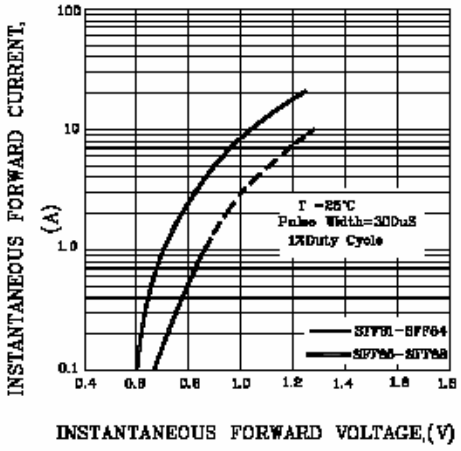


FIG.4–TYPICAL REVERSE CHARACTERISTICS

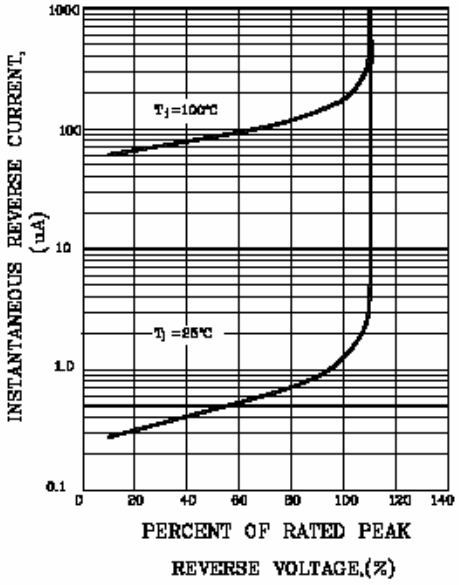


FIG.5–TYPICAL JUNCTION CAPACITANCE

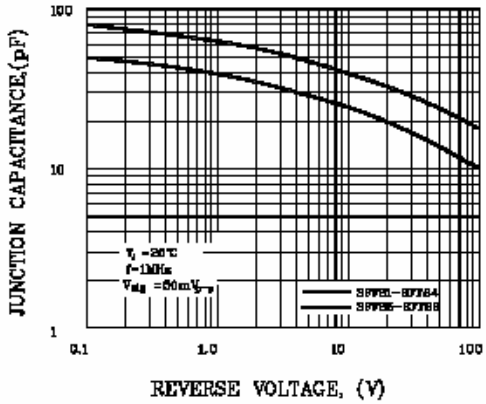
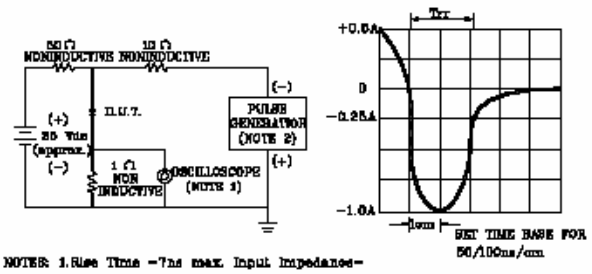


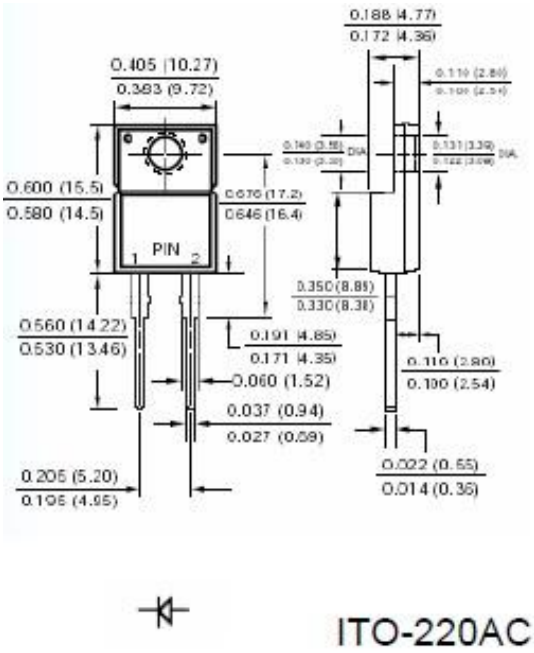
FIG.6–TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm, 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

SFF81G ~ SFF88G

Dimensions in inches (mm)



ITO-220AC

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