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, 0.16" (4.06mm) lead length
- Also available with common Anode, add an "A" suffix, i.e. SFF1601CA,
  And as a doubler, add a "D" suffix, i.e. SFF1601CD
- Also available in a non-isolated package, SF1601C
- RoHS and REACH Compliance

Mechanical Data

Case:	Transfer molded plastic
Polarity:	As makred
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E Method 208C
Mounting Position:	Any, 5 in-lbs Torque Max
Weight:	0.08 ounce, 2.24 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	SFF 1601C	SFF 1602C	SFF 1603C	SFF 1604C	SFF 1605C	SFF 1606C	SFF 1607C	SFF 1608C	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	16.0								**A**	Tc=100℃
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 1601C	SFF 1602C	SFF 1603C	SFF 1604C	SFF 1605C	SFF 1606C	SFF 1607C	SFF 1608C	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	3.0								℃/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

SFF1601C ~ SFF1608C

RATINGS AND CHARACTERISTIC CURVES SFF1601C THRU SFF1608C

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

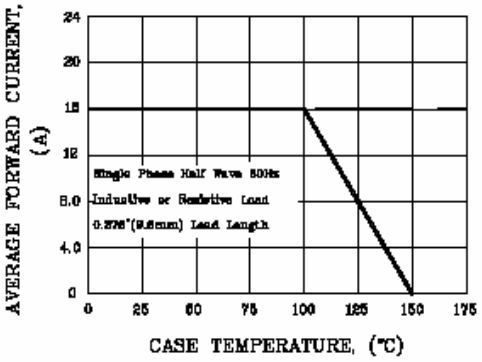


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

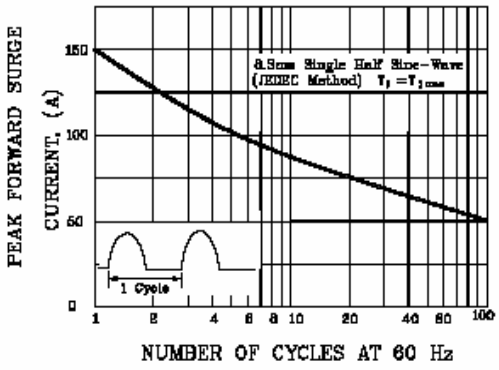


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

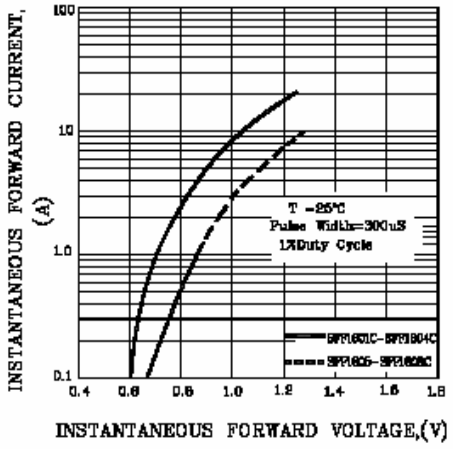


FIG.4—TYPICAL REVERSE CHARACTERISTICS PER LEG

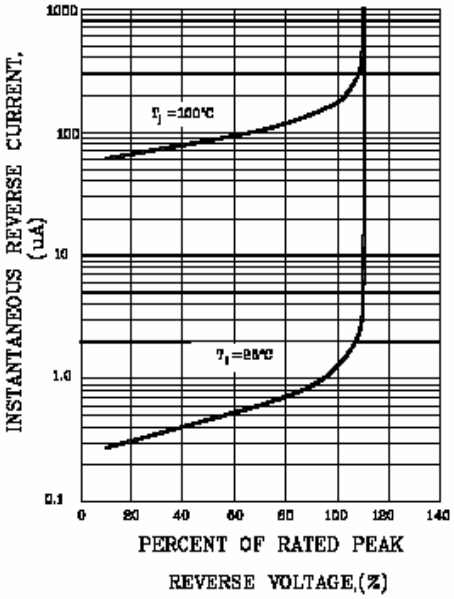


FIG.5—TYPICAL JUNCTION CAPACITANCE PER LEG

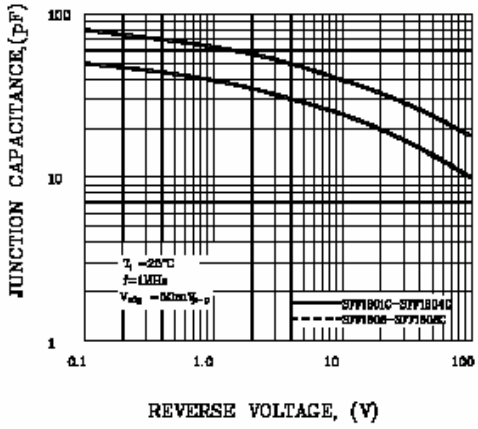
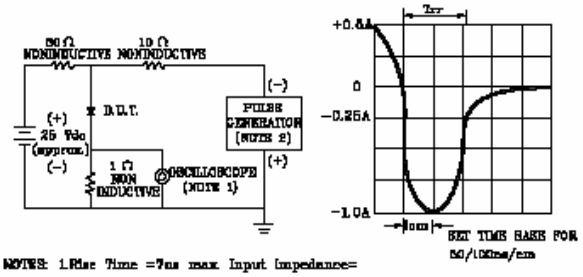


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

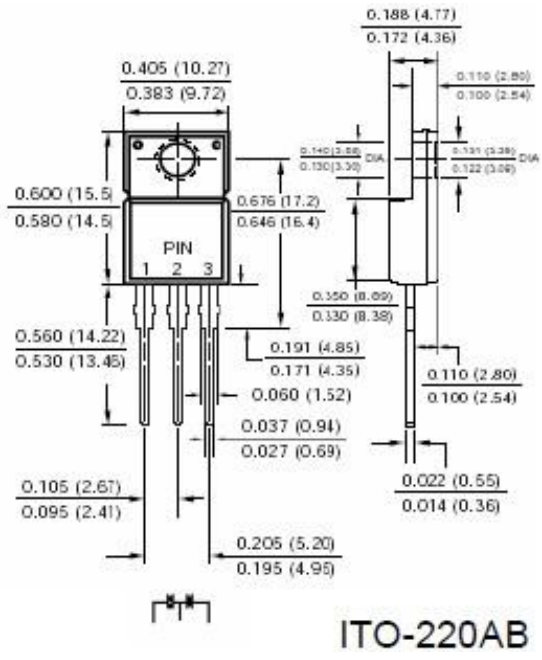


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms

SFF1601C ~ SFF1608C

Dimensions in inches (mm)



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