



SUPER FAST GLASS PASSIVATED RECTIFIER SF1601C ~ SF1608C

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°C/10 seconds, 0.16" (4.06mm) lead length
- Also available with common Anode, add an "A" suffix, i.e. SF1601CA,
And as a doubler, add a "D" suffix, i.e. SF1601CD
- Also available in an isolated package, SFF1601C
- RoHS and REACH Compliance



Mechanical Data

Case:	Transfer molded plastic
Polarity:	Color band denotes cathode end
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E Method 208C
Mounting Position:	Any
Weight:	0.064 ounce, 1.81 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

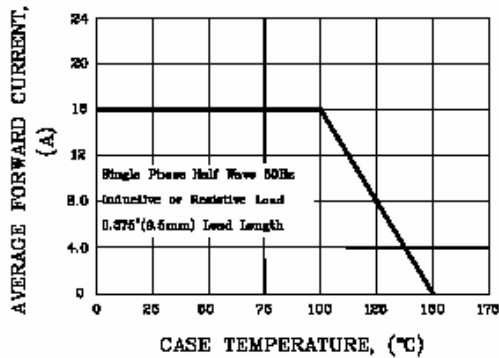
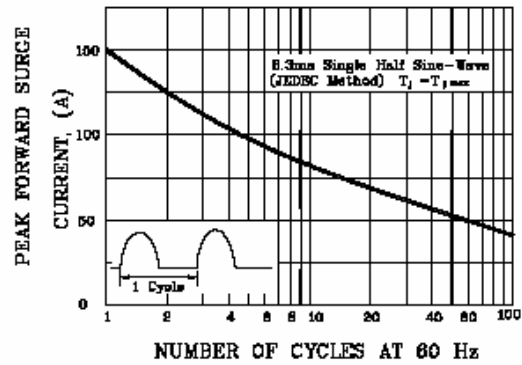
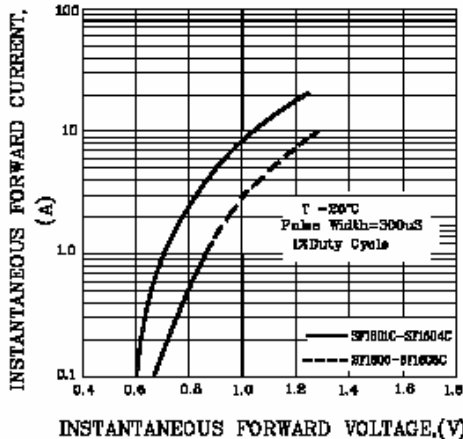
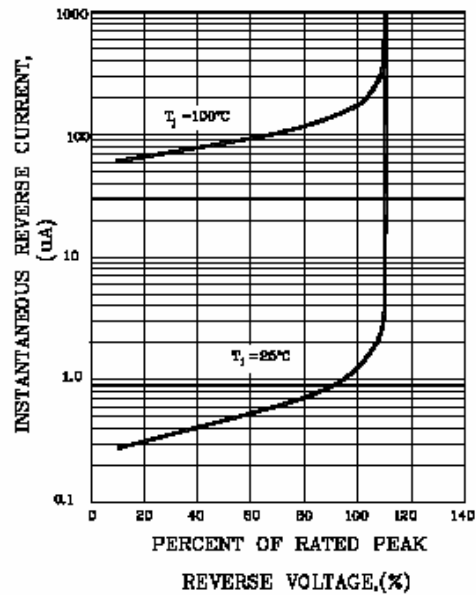
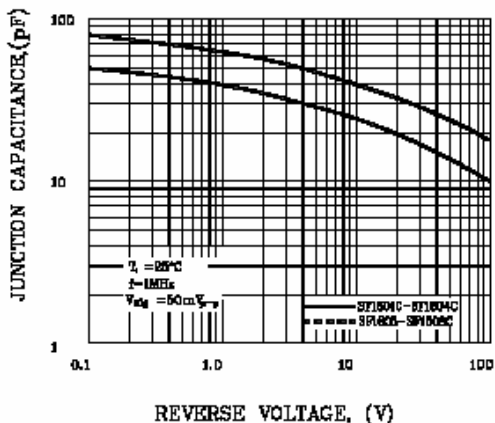
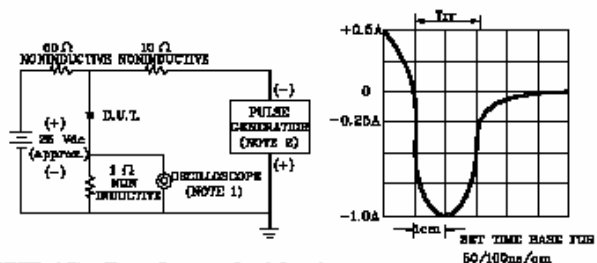
Symbol	Description	SF 1601C	SF 1602C	SF 1603C	SF 1604C	SF 1605C	SF 1606C	SF 1607C	SF 1608C	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	150	200	300	400	500	600	V	
VRMS	Max RMS Voltage	35	70	105	140	210	280	350	420	V	
VDC	Max DC Blocking Voltage	50	100	150	200	300	400	500	600	V	
I(AV)	Max Average Forward Rectified Current	16.0								A	$T_c=100^{\circ}C$
IFSM	Peak Forward Surge Current	150								A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150								$^{\circ}C$	

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	SF 1601C	SF 1602C	SF 1603C	SF 1604C	SF 1605C	SF 1606C	SF 1607C	SF 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 $^{\circ}C$
		500									TA=125 $^{\circ}C$
TRR	Maximum reverse recovery time	35								nS	Note 1
Rθ-JA	Typical Thermal Resistance	2.5								$^{\circ}C/W$	Note 2
CJ	Typical Junction capacitance	50				30				pF	Measured at 1.0MHz / 4.0V

Note:

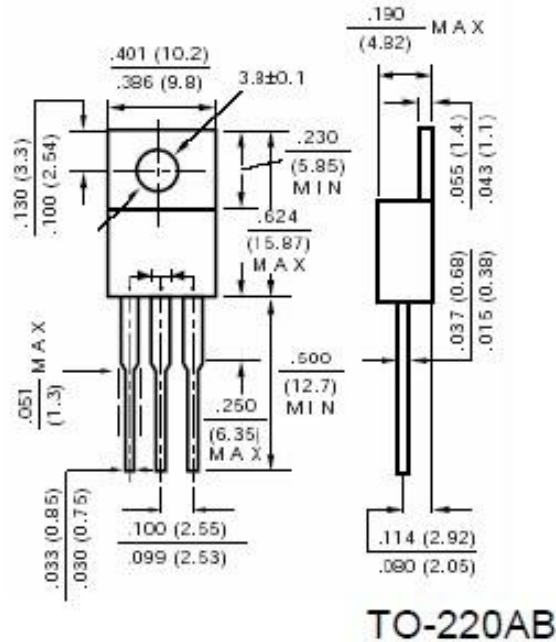
1. Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Unit mounted on heatsink

SF1601C ~ SF1608C
RATINGS AND CHARACTERISTIC CURVES SF1601C THRU SF1608C
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


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

SF1601C ~ SF1608C

Dimensions in inches (mm)

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