



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:
260°C/10 seconds, 0.375" (9.5mm) lead length
- 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:	0.042 ounce, 1.19 gram

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

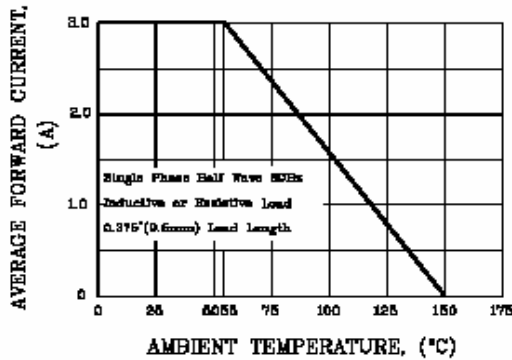
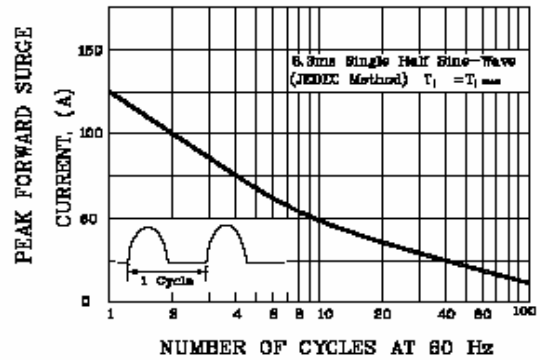
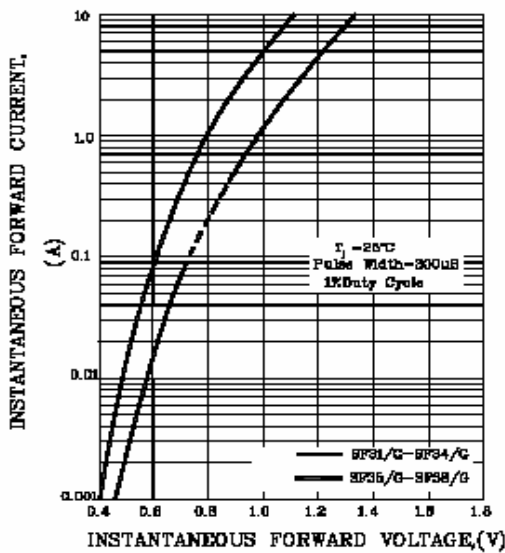
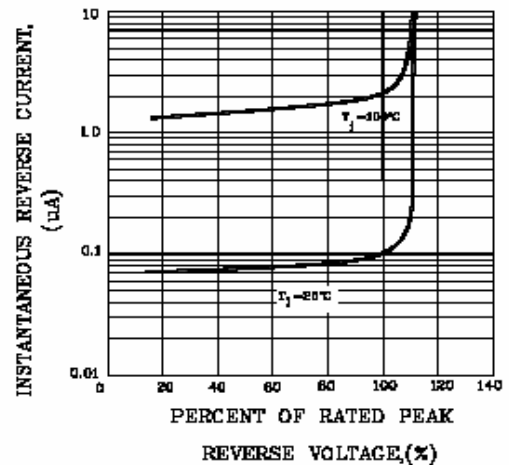
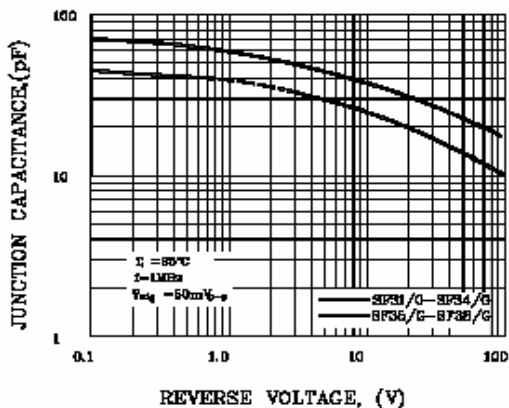
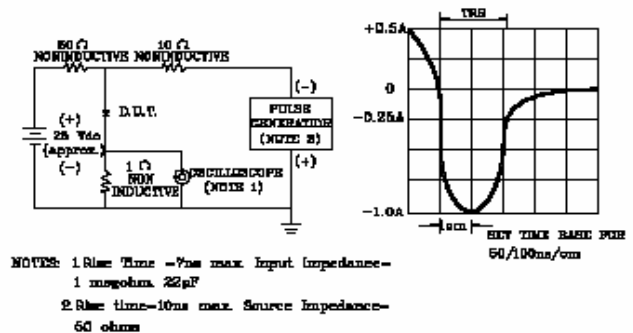
Symbol	Description	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	SF37G	SF38G	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	150	200	300	400	500	600	V	
VRMS	Max RMS Voltage	35	70	105	140	210	280	350	420	V	
VDC	Max DC Blocking Voltage	50	100	150	200	300	400	500	600	V	
I(AV)	Max Average Forward Rectified Current 0.375" (9mm) lead length	3.0								A	TA=55°C Note 2
IFSM	Peak Forward Surge Current	125								A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150								°C	
Rθ-JA	Typical Thermal Resistance	30								°C/W	Note 2

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

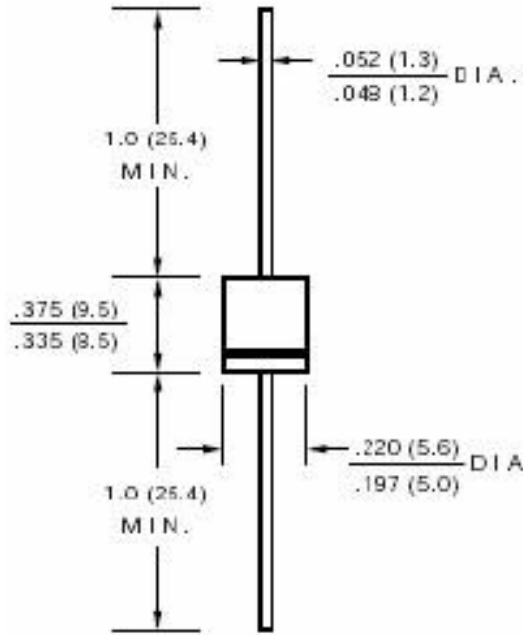
Symbol	Description	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	SF37G	SF38G	Unit	Conditions
VF	Max Instantaneous Forward Voltage	0.95		1.25			1.7			V	3.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0								μA	TA=25°C
		50									TA=125°C
TRR	Maximum reverse recovery time	35								nS	Note 1
CJ	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. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted

SF31G ~ SF38G
RATINGS AND CHARACTERISTIC CURVES SF31G THRU SF38G
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


Dimensions in inches (mm)



DO-27

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