

# SF31G THRU SF38G

3.0 AMPS. Glass Passivated Super Fast Rectifiers

### **Features**

· Low forward voltage drop

· High current capability

· High reliability

High surge current capability

· Plastic material-UL flammability 94V-0

### **Mechanical Data**

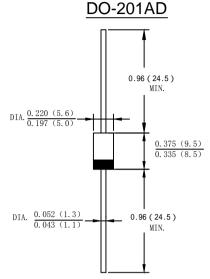
· Case: Molded plastic DO-201AD

 Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed

· Polarity: Color band dentes cathode end

Mounting Position: AnyMaking: Type Number

Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

## **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	SF38G	Unit
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	104	140	210	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) lead length @T∟=100°C	IF(AV)	3.0							А
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	lгsм	125							А
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	l²t	64.84						A <sup>2</sup> s	
Forward Voltage @IF=3.0A	V <sub>FM</sub>	0.95 1.25				25	1.7	V	
Peak Reverse Current @Ta=25°C	5.0								uA
At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	100								
Typical Junction Capacitance (Note 1)	Сл	80					60		pF
Typical Thermal Resistance Junction to Ambient(Note 2)	RөJA	35							°C/W
Maximum Reverse Recovery Time(Note 3)	Trr	35							ns
Operating Temperature Range	TJ	-55 to +150							$^{\circ}$
/Storage Temperature Range	Тѕтс	-55 to +150							$^{\circ}$

Note:1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

- 2. Leads maintained at ambient temperature at a distance of 9.5mm from the case
- 3. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A



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FIG.1- MAXIMUM AVERAGE FORWARD CURRENT DERATING

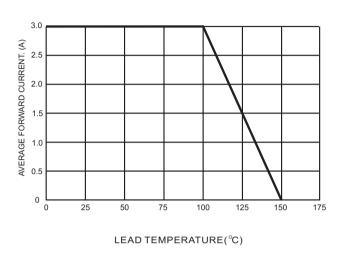


FIG.2- TYPICAL FORWARD CHARACTERISTICS

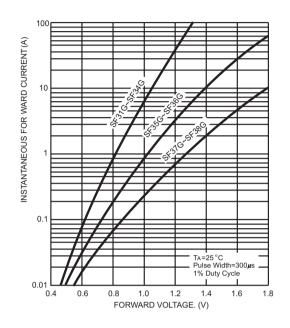


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

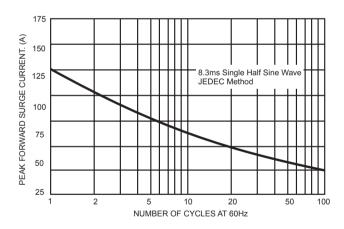
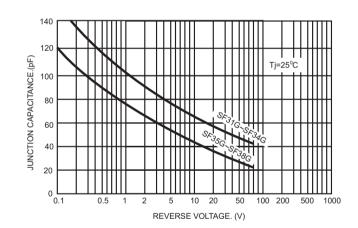


FIG.4- TYPICAL JUNCTION CAPACITANCE





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