

SF31GU THRU SF38GU

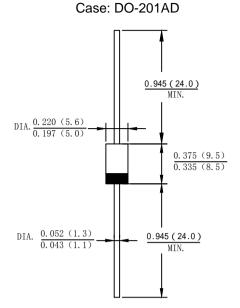
3.0 AMPS. Glass Passivated Super Fast Rectifiers

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: Any
- · Making: 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	SF31GU	SF32GU	SF33GU	SF34GU	SF35GU	SF36GU	SF38GU	Unit
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	104	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) lead length @T _L =100°C	IF(AV)	3.0							Α
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	İfsm	150							Α
I ² t Rating for Fusing (t < 8.3ms)	l²t	93.375							A ² s
Forward Voltage @IF=3.0A	V _{FM}	0.95 1.3 1.7				1.7	V		
Peak Reverse Current @Ta=25°C	5.0								uA
At Rated DC Blocking Voltage @T _A =125°C	IK				100				uA
Typical Junction Capacitance (Note 1)	Сл	85 40					pF		
Typical Thermal Resistance Junction to Ambient	RөJA	65							°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							$^{\circ}$ C

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

2. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A

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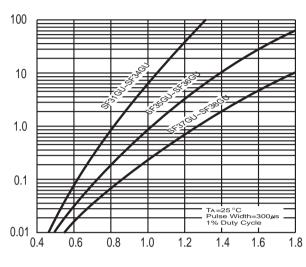
Average Forward Current (A)

IFSM, Peak Forward Surge Current (A)

4 3 2 1 0 0 50 100 150 200

Fig. 1 Forward Current Derating Curve

Fig. 2 Typ. Forward Characteristics



Instantaneous Forward Current (A)

Capacitance, (pF)

V_F, Instantaneous Forward Voltage (V)

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

T_L Lead Temperature(°C)

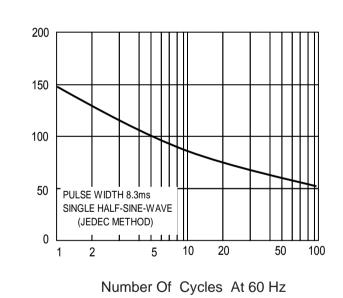
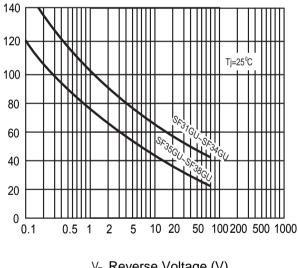


Fig.4 Typical Junction Capacitance



V_R, Reverse Voltage (V)

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