



SF31GU THRU SF38GU

3.0 AMPS. Glass Passivated Super Fast Rectifiers

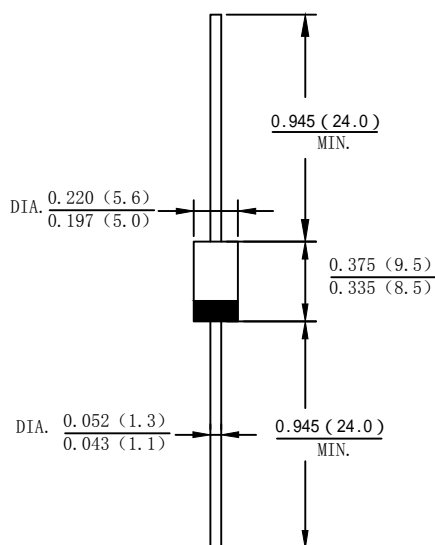
Features

- 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 denotes cathode end
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

Case: DO-201AD



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	V _{RRM}	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							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	93.375							A ² s
Forward Voltage @IF=3.0A	V _{FM}	0.95				1.3		1.7	V
Peak Reverse Current @T _A =25°C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125°C		100							
Typical Junction Capacitance (Note 1)	C _J	85				40			pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	65							°C/W
Maximum Reverse Recovery Time(Note 3)	T _{rr}	35							ns
Operating Temperature Range	T _J	-55 to +150							°C
/Storage Temperature Range	T _{STG}	-55 to +150							°C

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

2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$



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Fig. 1 Forward Current Derating Curve

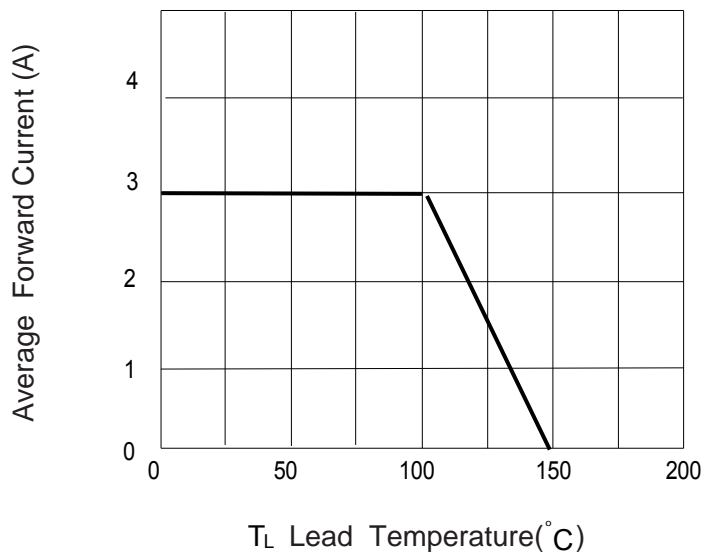


Fig. 2 Typ. Forward Characteristics

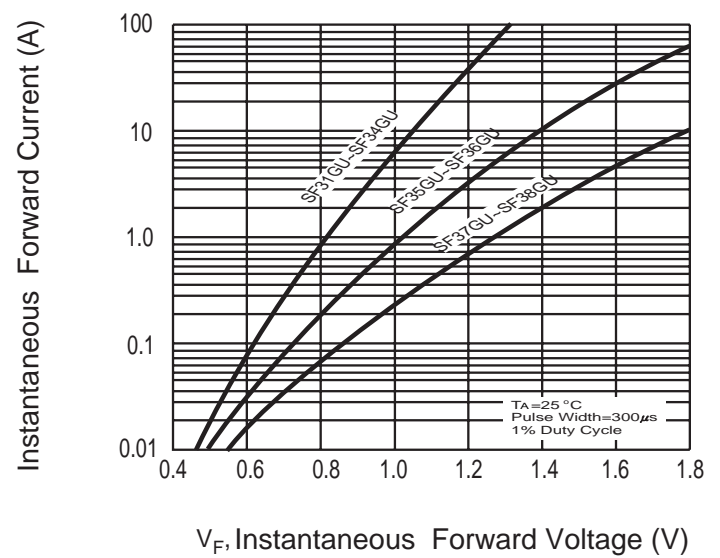


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

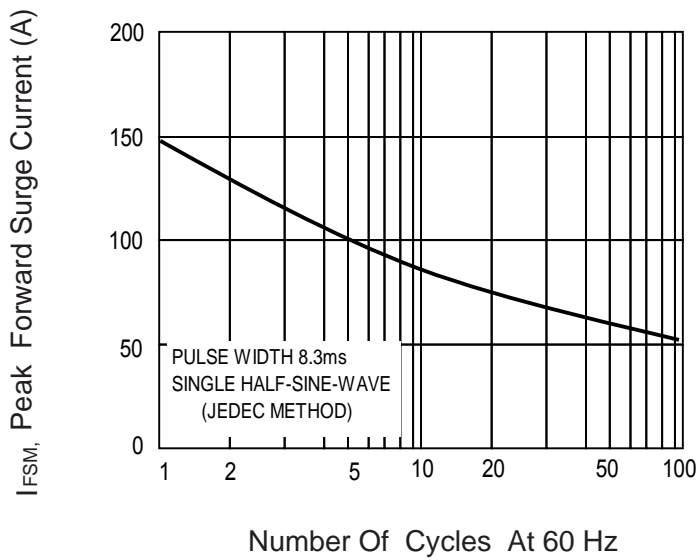
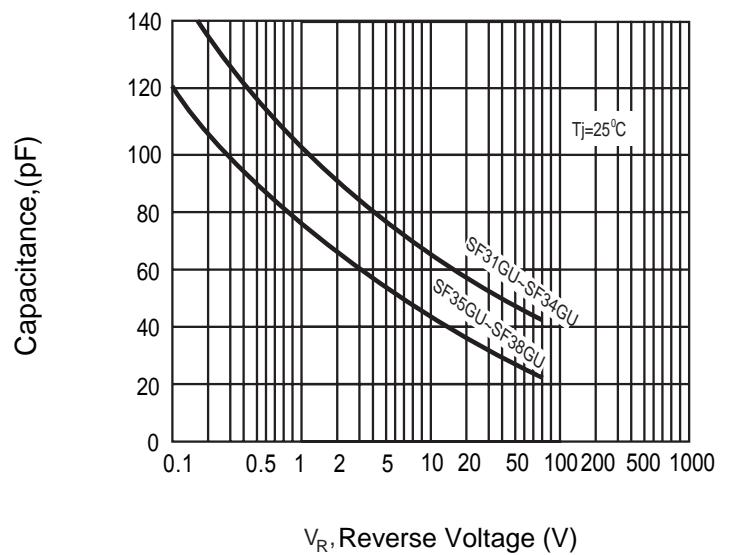


Fig. 4 Typical Junction Capacitance





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