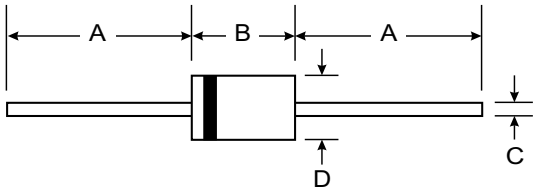
SF31 - SF34

3.0A SUPER-FAST RECOVERY RECTIFIER

Features

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- Super-fast Switching Speed < 35ns
- Plastic Material - UL Recognition 94V-0
- Good for 200KHz Power Supply



Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 1.2 grams

DO-201AD		
Dim	**Min**	**Max**
A	25.4	—
B	7.2	9.5
C	1.2	1.3
D	4.8	5.3
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, halfwave, 60Hz, resistive or inductive load.

Characteristic	Symbol	SF31	SF32	SF33	SF34	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	V
Maximum DC Blocking voltage	V_{DC}	50	100	150	200	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ T_A=55°C	$I_{(AV)}$	3.0				A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	110				A
Maximum Instantaneous Forward Voltage @ 3.0A DC	V_F	0.975				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10				μA
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_A = 150°C		50				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35				ns
Typical Junction Capacitance (Note 2)	C_J	155				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175				°C

Notes: 1. Reverse Recovery Test Conditions: I_F =0.5 A, I_R =1.0 A, I_{RR}=0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

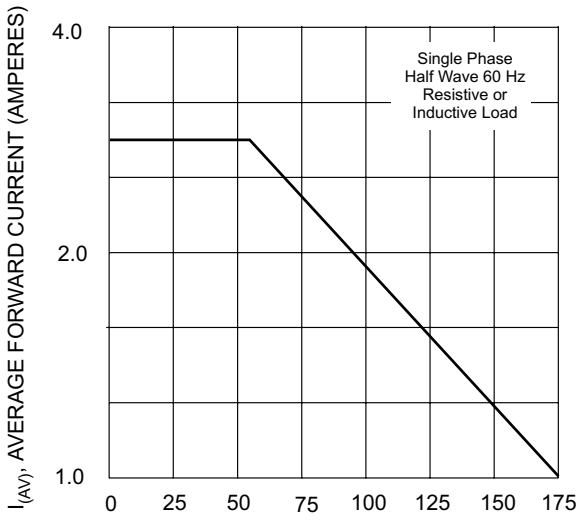


Fig. 1, Maximum Average Forward Current Rating

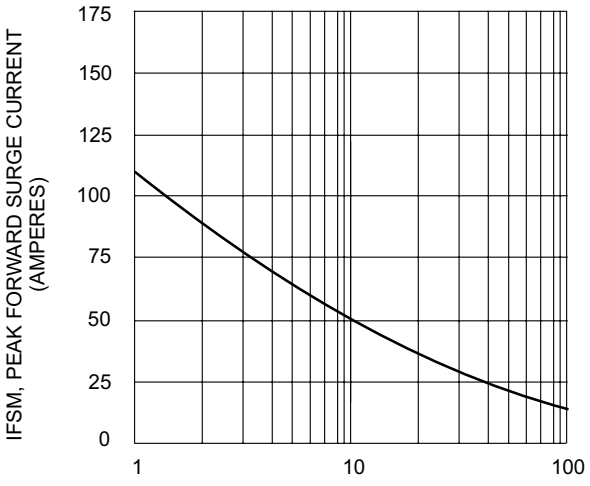


Fig. 2 Maximum Non-Repetitive Peak

Forward Surge Current

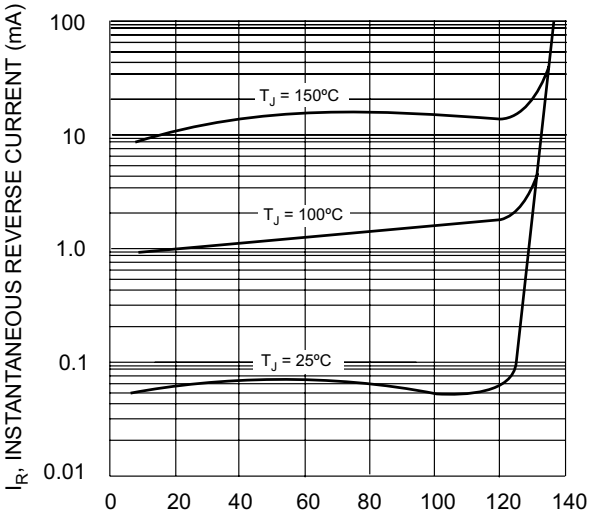


Fig. 3, Typical Reverse Characteristics

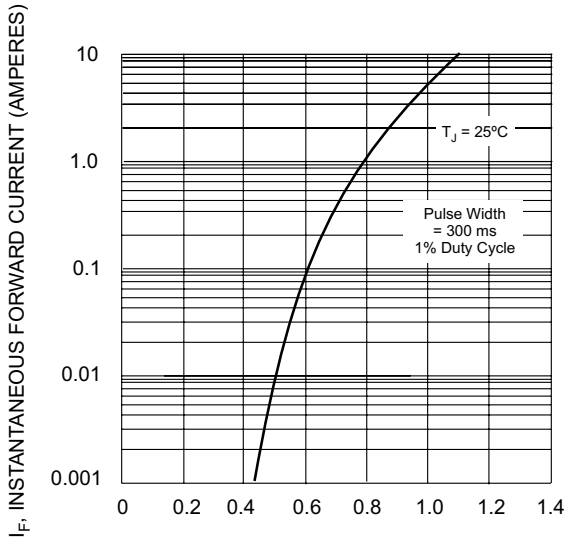


Fig. 4 Typical Instantaneous Forward Characteristics

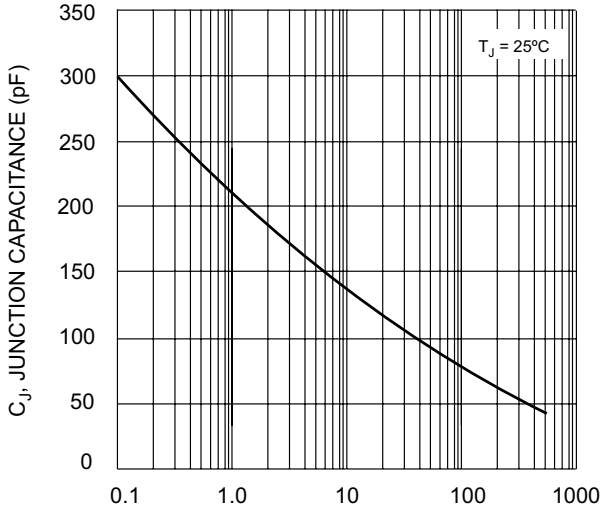


Fig. 5 Typical Junction Capacitance