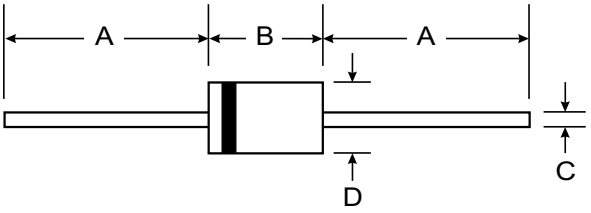
SF61 - SF64

6.0A SUPER-FAST RECOVERY RECTIFIER

Features

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- Super-Fast Switching Speed < 35ns
- Plastic Material - U/L Flammability Classification 94V-0



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
- Mounting Position: Any

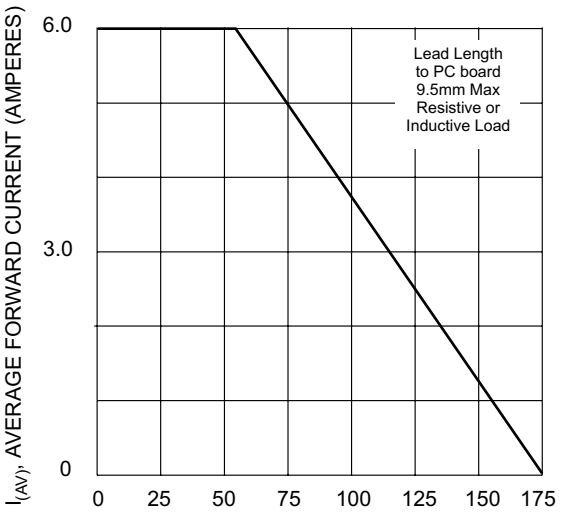
DO-201AD		
Dim	**Min**	**Max**
A	25.4	—
B	—	9.5
C	1.2	1.3
D	4.8	5.2
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current 20%.

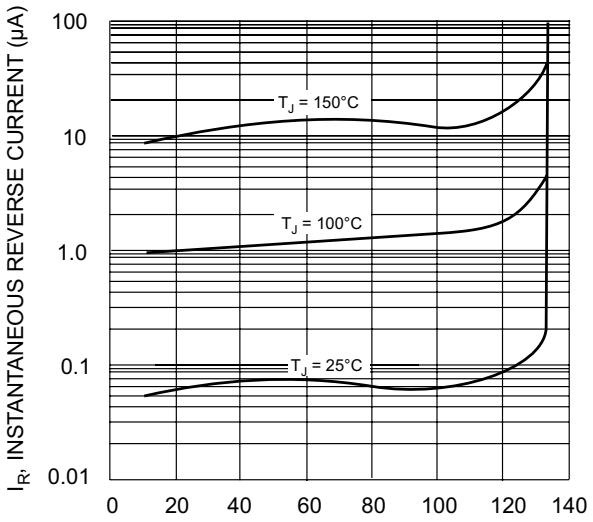
Characteristic	Symbol	SF61	SF62	SF63	SF64	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	V
Maximum DC Blocking voltage	V_{DC}	50	100	150	200	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ T_A=55°C	$I_{(AV)}$	6.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FM}	150				A
Maximum Instantaneous Forward Voltage @ 6.0A DC	V_F	1.0				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	I_R	150				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35				ns
Typical Junction Capacitance (Note 2)	C_J	170				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 MHz and applied reverse voltage of 4.0V.



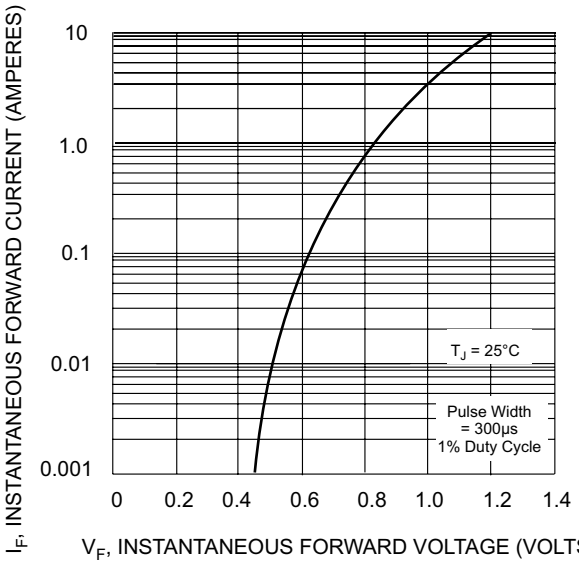
T_A, AMBIENT TEMPERATURE (°C)

Fig. 1, Typical Fwd Current Derating Curve



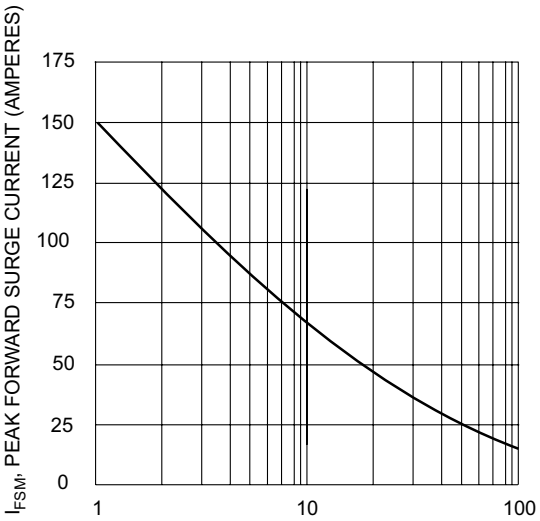
PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

Fig. 2, Typical Reverse Characteristics



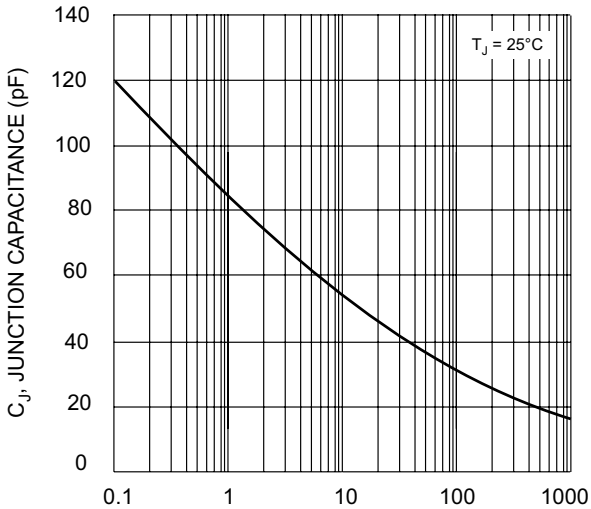
V_F, INSTANTANEOUS FORWARD VOLTAGE (VOLTS)

Fig. 3, Typical Instantaneous Fwd Characteristics



NUMBER OF CYCLES AT 60 Hz

Fig. 4, Max Non-Repetitive Peak Fwd Surge Current



V_R, REVERSE VOLTAGE (VOLTS)

Fig. 5, Typical Junction Capacitance