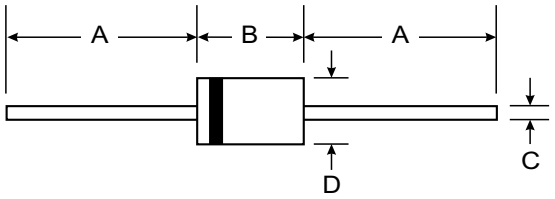
SF11 - SF14

1.0A SUPER-FAST RECOVERY RECTIFIER

Features

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- Super-fast Switching Speed < 35ns
- Plastic Material: UL Flammability Classification Rating 94V-0



DO-41		
Dim	**Min**	**Max**
A	25.4	—
B	4.1	5.2
C	0.71	0.86
D	2.0	2.7
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202 Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 0.3 grams
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics

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

Characteristic	Symbol	SF11	SF12	SF13	SF14	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 .375" 9.5mm Lead Length @ T_A=55°C	$I_{(AV)}$	1.0				A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FM}	30				A
Maximum Instantaneous Forward Voltage at 1.0A DC	V_f	0.975				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0				μA
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_A = 150°C	I_R	50				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35				ns
Typical Junction Capacitance (Note 2)	C_J	63				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.

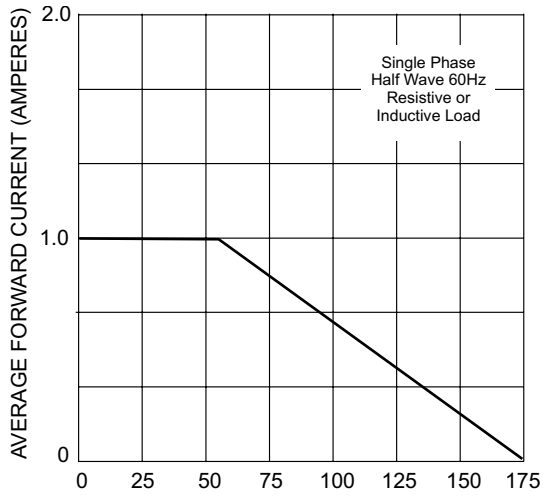


Fig. 1 Typical Forward Current Derating Curve

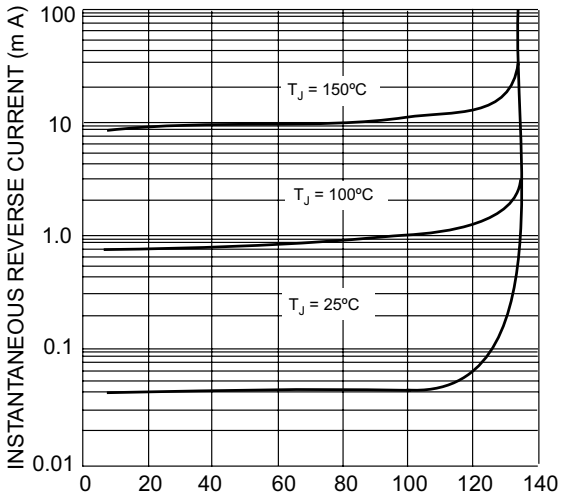


Fig. 2 Typical Reverse Characteristics

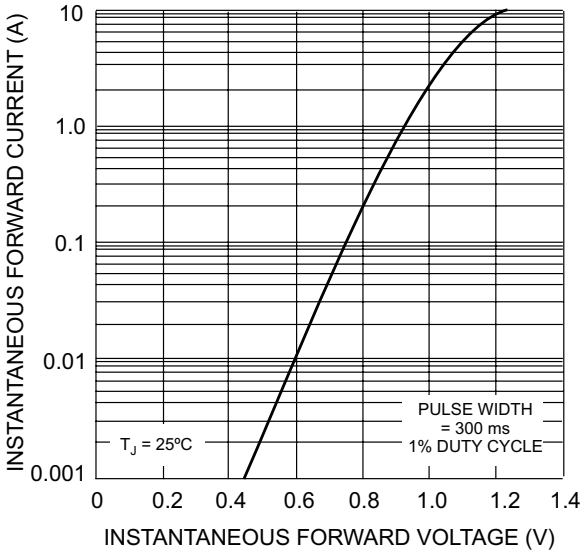


Fig. 3 Typ. Instantaneous Fwd Characteristics

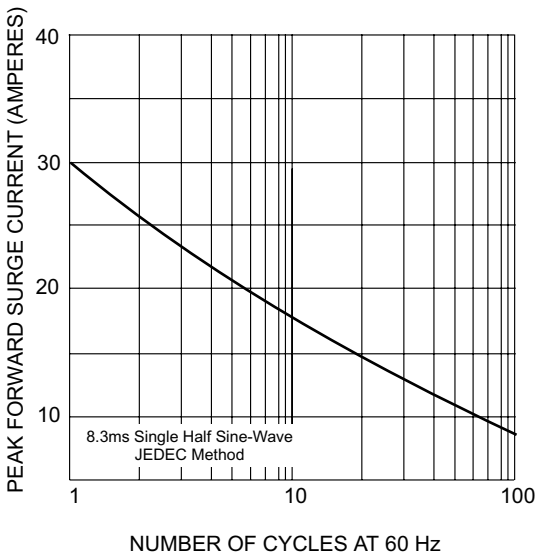


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current (A)

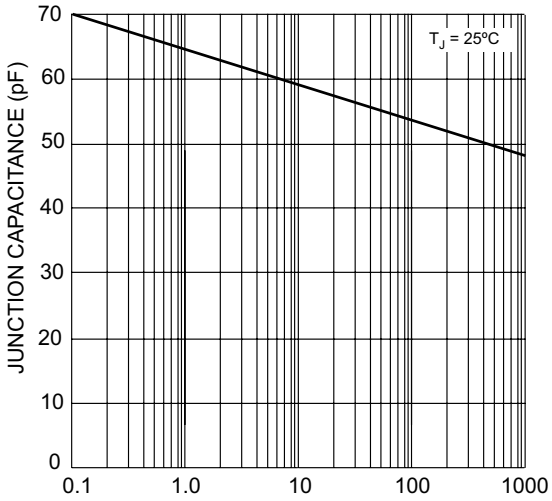


Fig. 5 Typical Junction Capacitance