

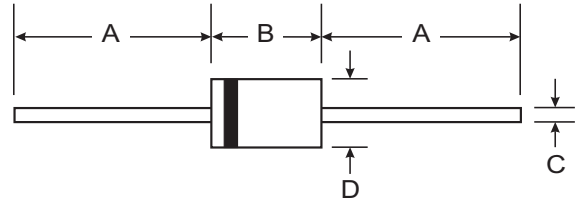


# SF21 - SF24

## 2.0A SUPER-FAST RECOVERY RECTIFIER

### Features

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



### Mechanical Data

- Case: 5W, Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 0.4 grams
- Mounting Position: Any

5W		
Dim	Min	Max
A	25.4	—
B	8.38	8.89
C	0.94	1.09
D	3.30	3.68
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.

For capacitive load, derate current 20%.

Characteristic	Symbol	SF21	SF22	SF23	SF24	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	V
Maximum DC Blocking voltage	V <sub>DC</sub>	50	100	150	200	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ T <sub>A</sub> =55°C	I <sub>(AV)</sub>	2.0				A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	50				A
Maximum Instantaneous Forward Voltage @ 2.0A DC	V <sub>F</sub>	0.975				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5				μA
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>A</sub> =150°C	I <sub>R</sub>	50				μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35				ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	70				pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 175				°C

- Notes: 1. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>RR</sub> = 0.25A  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

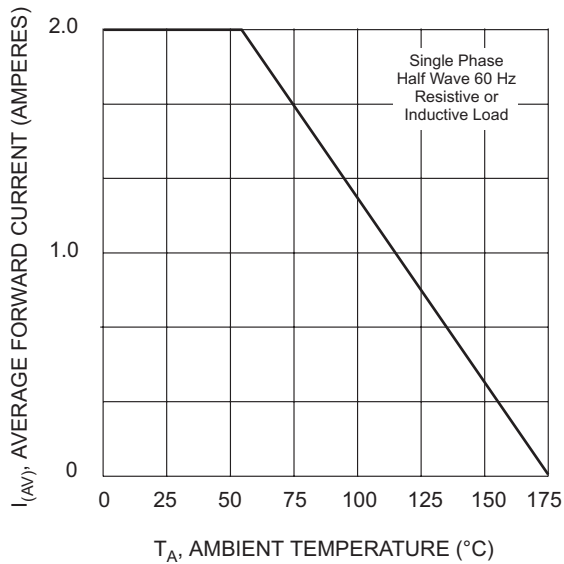


Fig. 1, Typical Fwd Current Derating Curve

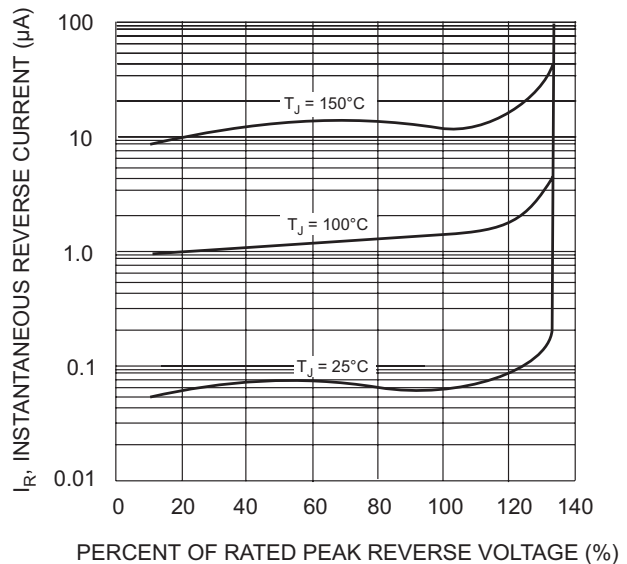


Fig. 2, Typical Reverse Characteristics

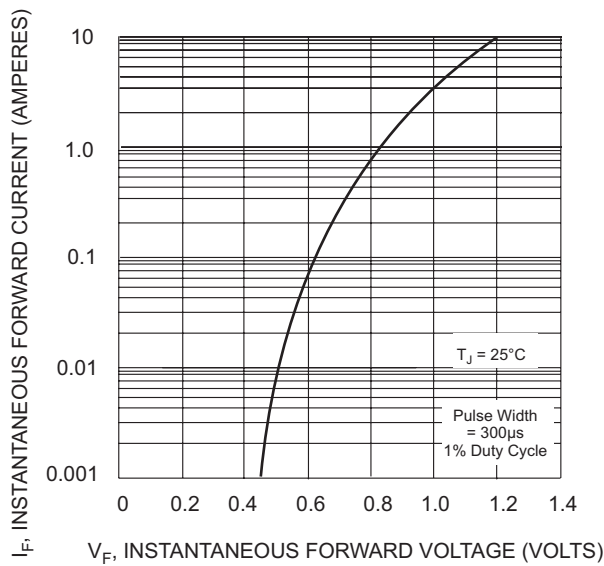


Fig. 3, Typical Instantaneous Fwd Characteristics

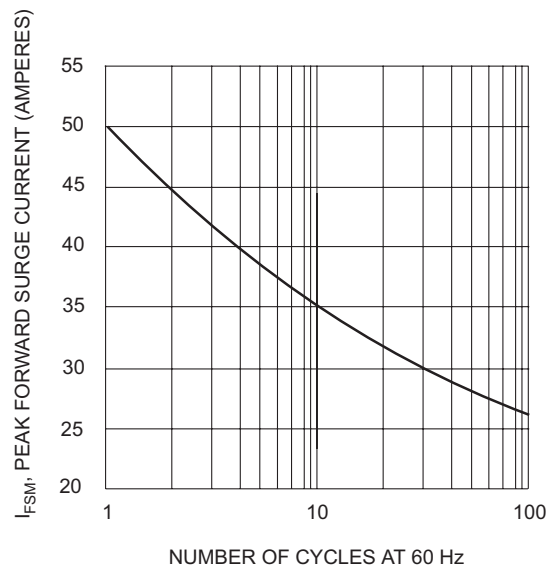


Fig. 4, Max Non-Repetitive Peak Fwd Surge Current

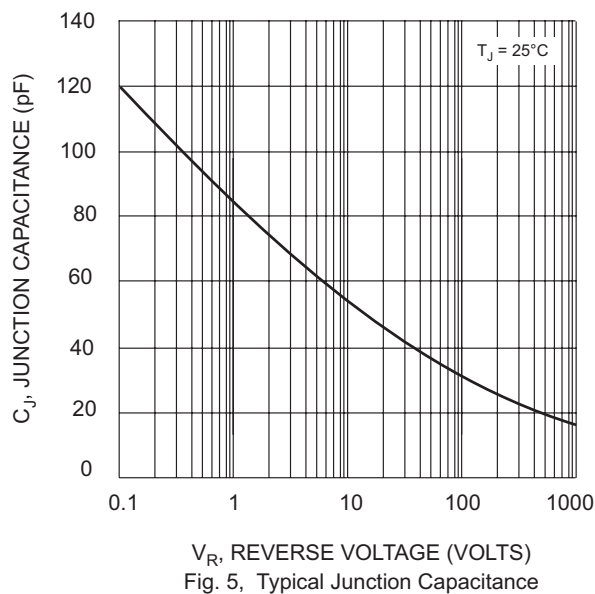


Fig. 5, Typical Junction Capacitance