



# SS12FL THRU SS120FL

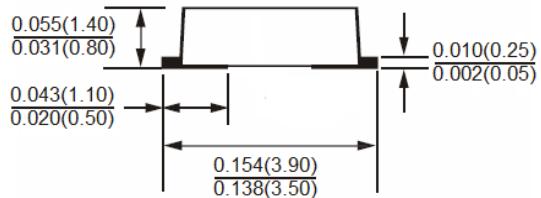
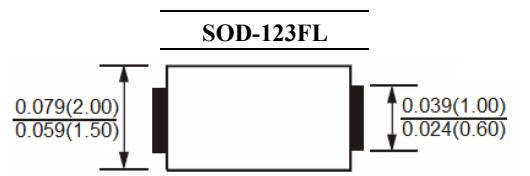
## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**REVERSE VOLTAGE:** 20 to 200 VOLTS

**FORWARD CURRENT:** 1.0 AMPERE

### FEATURES

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- Suffix "H" indicates Halogen-free parts, ex. SS12FLH



### MECHANICAL DATA

Case : Molded plastic, SOD-123FL

Dimensions in inches and (millimeters)

Terminals: Solder plated, solderable per

MIL-STD-750, method 2026 guaranteed

Polarity : Color band denotes cathode end

### 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 by 20%.

Parameter	Symbols	SS12FL	SS13FL	SS14FL	SS16FL	SS18FL	SS110FL	SS115FL	SS120FL	Units				
<b>Maximum Recurrent Peak Reverse Voltage</b>	<b>V<sub>RRM</sub></b>	20	30	40	60	80	100	150	200	Volts				
<b>Maximum RMS Voltage</b>	<b>V<sub>RMS</sub></b>	14	21	28	42	56	70	105	140	Volts				
<b>Maximum DC Blocking Voltage</b>	<b>V<sub>DC</sub></b>	20	30	40	60	80	100	150	200	Volts				
<b>Maximum Average Forward Rectified Current at T<sub>L</sub> (See Fig. 1)</b>	<b>I<sub>(AV)</sub></b>	1.0							Amp					
<b>Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)</b>	<b>I<sub>FSM</sub></b>	25.0							Amp					
<b>Maximum Forward Voltage at 1.0A (Note 1)</b>	<b>V<sub>F</sub></b>	0.55		0.75	0.85		0.95		Volts					
<b>Maximum Reverse Current at T<sub>A</sub>=25°C at Rated DC Blocking Voltage T<sub>A</sub>=100°C</b>	<b>I<sub>R</sub></b>	1.0 20							mAmp					
<b>Typical Thermal Resistance (Note 2)</b>	<b>R<sub>θ JA</sub></b>	88.0							°C/W					
<b>Operating Junction Temperature Range</b>	<b>T<sub>J</sub></b>	-50 to +125							°C					
<b>Storage Temperature Range</b>	<b>T<sub>stg</sub></b>	-50 to +125												

#### NOTES:

1- Pulse test: 300μs pulse width, 1% duty cycle

2- Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas ( $\approx$ 35 μm thick)

### RATINGS AND CHARACTERISTIC CURVES

Fig 1. Forward Current Derating Curve

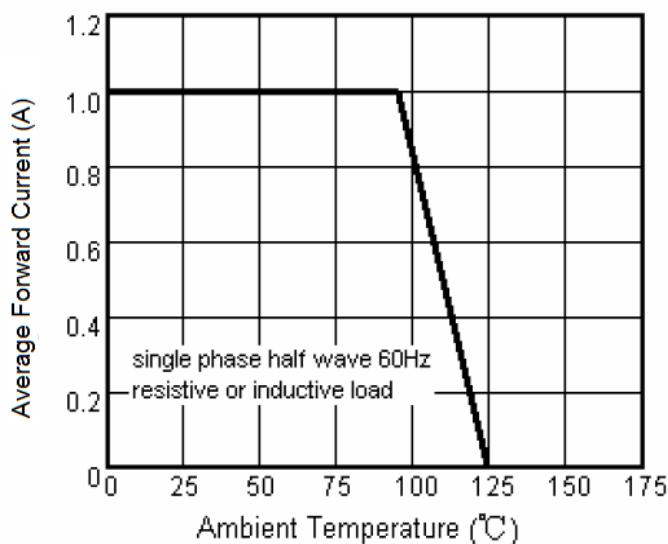


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

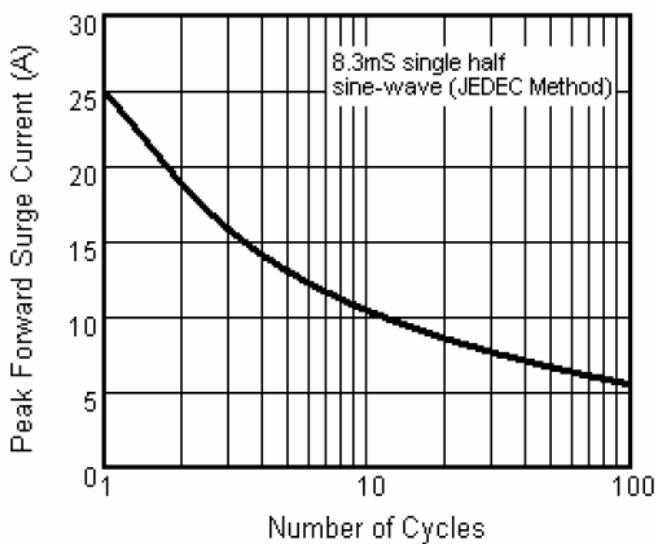


Fig. 3 Typical Instantaneous Forward Characteristics

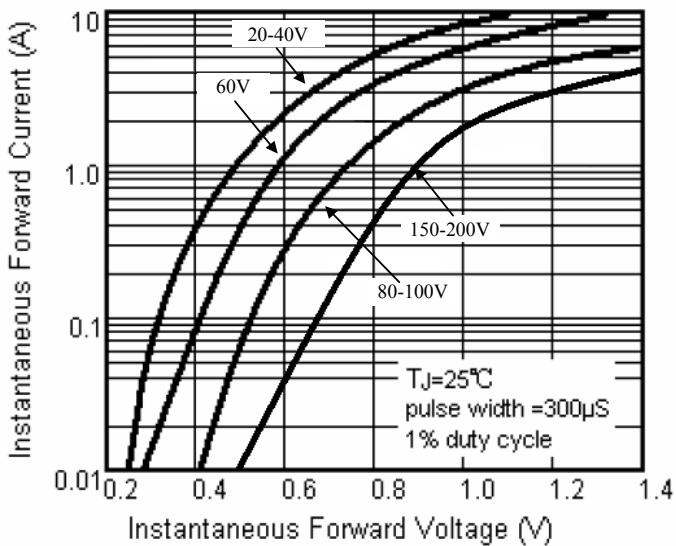


Fig. 4 Typical Reverse Characteristics

