

# SB12FL-AT THRU SB120FL-AT

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Forward Current-1.0A

Reverse Voltage-20V to 200V

### FEATURES

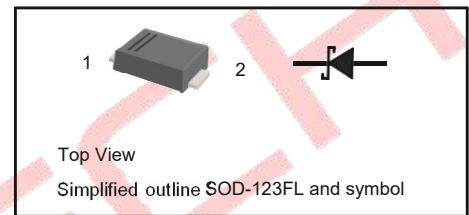
- ◆ For surface mount applications
- ◆ High forward surge current capability
- ◆ Low power loss,high efficiency
- ◆ Metal silicon junction,majority carriers conduction

### MECHANICAL DATA

- ◆ Case: SOD-123FL molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Weight: Approximated 0.015 grams

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

PARAMETER	SYMBOL	SB12FL -AT	SB14FL -AT	SB16FL -AT	SB18FL -AT	SB110FL -AT	SB112FL -AT	SB115FL -AT	SB120FL -AT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current at T <sub>C</sub> =85°C	I <sub>F(AV)</sub>	1.0								A
Peak Forward Surge Current (Note1)	I <sub>FSM</sub>	25								A
Maximum Forward Voltage at 1.0 A	V <sub>F</sub>	0.55		0.70		0.85		0.90		V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance(Note2)	C <sub>J</sub>	110			80					pF
Typical Thermal Resistance(Note3)	R <sub>θJA</sub>	100								°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150								°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

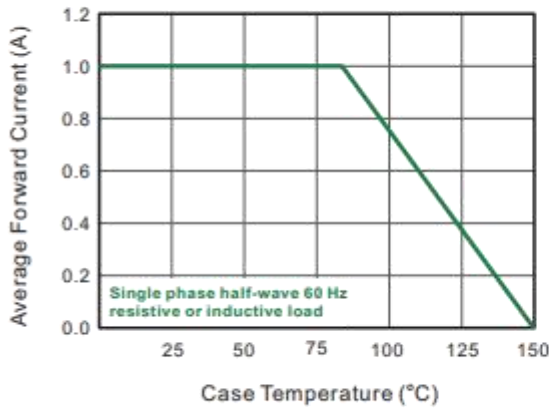
2. Measured at 1MHz and applied reverse voltage of 4 V D.C.

3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

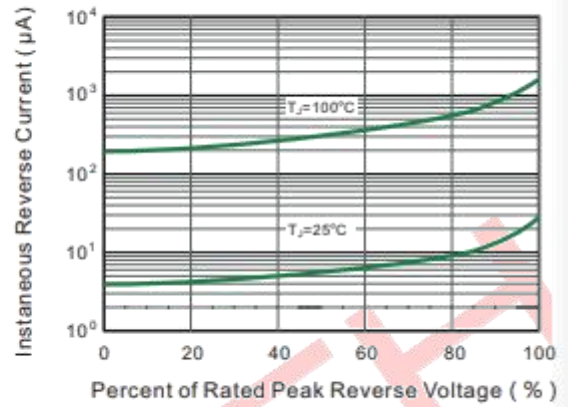
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## RATINGS AND CHARACTERISTIC CURVES

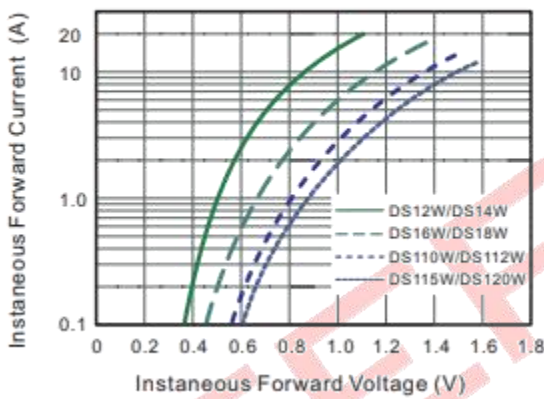
**Fig.1 Forward Current Derating Curve**



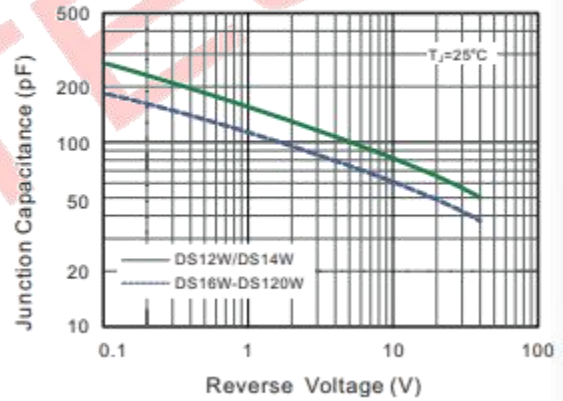
**Fig.2 Typical Reverse Characteristics**



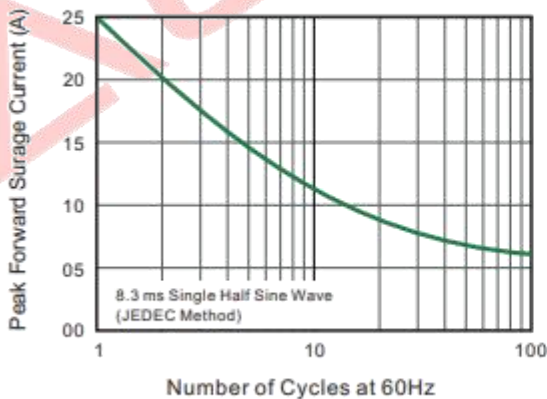
**Fig.3 Typical Forward Characteristic**



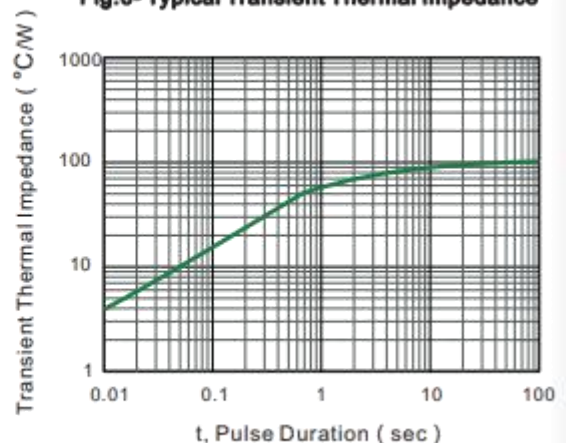
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



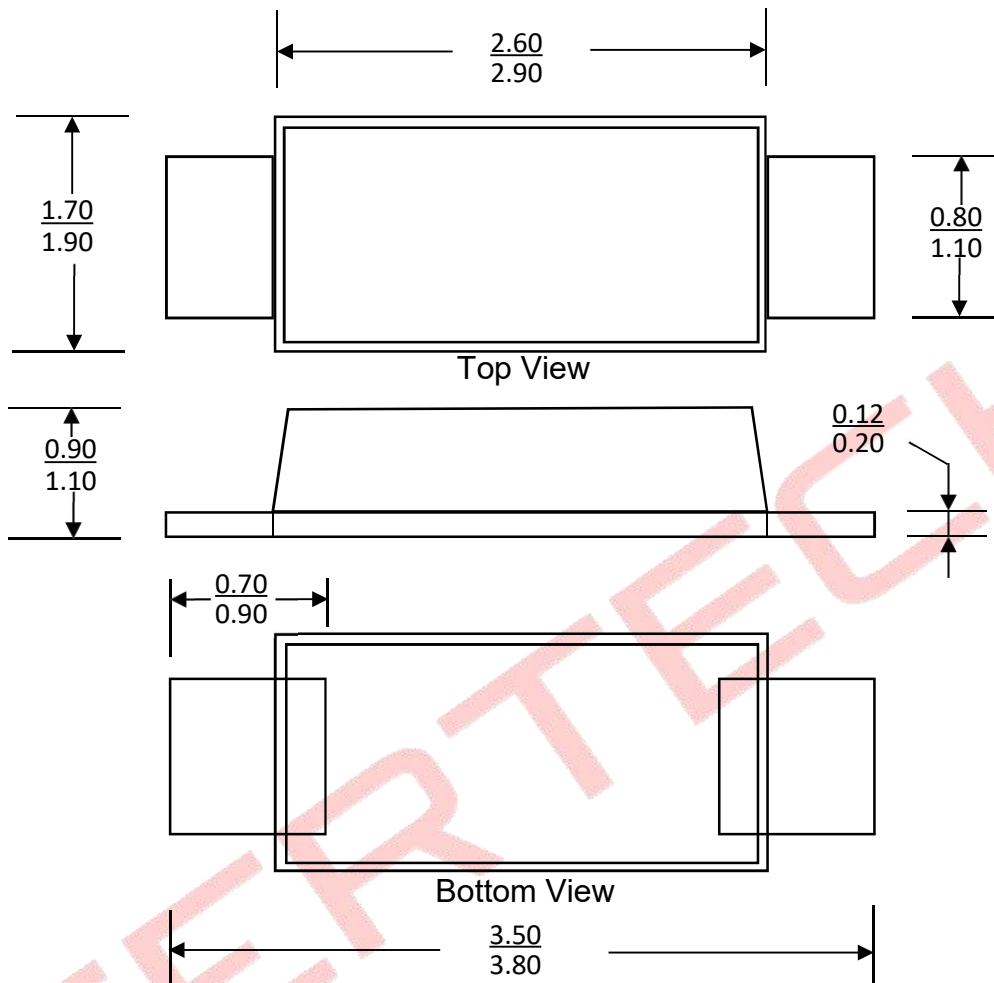
**Fig.6- Typical Transient Thermal Impedance**



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## PACKAGE OUTLINE

SOD-123FL



Dimensions in millimeters

### ORDERING INFORMATION

Device	Package	Shipping
SB12FL-AT thru SB120FL-AT	SOD-123FL	3,000/Tape & Reel (7 inches)