

# SSCSSS12D1 THRU SSCSSS120D1

### **Schottky Barrier Diode**

### Features

- ♦ Low profile package
- ♦ Ideal for automated placement
- ♦ Ultrafast reverse recovery time
- ♦ Low power losses, high efficiency
- $\ \, \diamondsuit \quad \ \, \text{Low forward voltage drop}$
- ♦ High surge capability
- ♦ UL Flammability Classification Rating 94V-0

## Applications

- ♦ Low Voltage
- ♦ High-Frequency Inverters
- ♦ Free Wheeling
- ♦ Polarity Protection

## PIN configuration



SOD-123FL





<u>Marking</u>

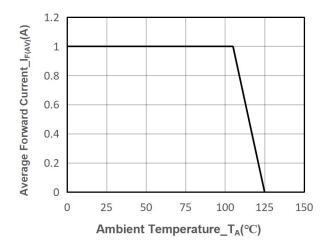
(SS14:SSCSSS14D1 Marking Code)

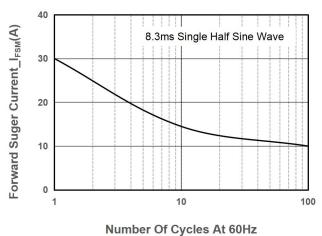
# Absolute maximum rating @T<sub>A</sub>=25℃

Parameter	Symbol	SS12D1	SS14D1	SS16D1	SS110D1	SS115D1	SS120D1	Unit
Maximum Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	28	42	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	100	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0				А		
Non-repetitive Peak Forward Surge Current								
@t=8.3ms	I <sub>FSM</sub>	30						A
Max Instantaneous Forward Voltage at 2 A	V <sub>F</sub>	0.6	0.6	0.75	0.85	0.95	0.95	V
Maximum DC Reverse Current Ta = 25 ℃	500				μA			
at Rated DC Blocking Voltage Ta =125 °C	I <sub>R</sub> 20						mA	
Operating Temperature	TJ	-55 ~ +125				°C		
Storage Temperature	T <sub>STG</sub>	-55 ~ +150				°C		



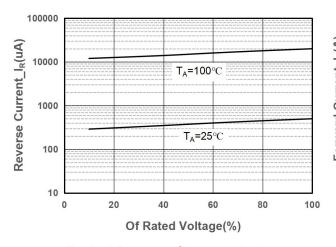
# Typical Performance Characteristics

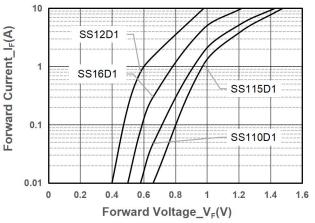




Io -TL Curve

**Surge Forward Current Capability Voltage** 





**Typical Reverse Characteristics** 

**Forward Voltage vs. Forward Current** 



# Package Information

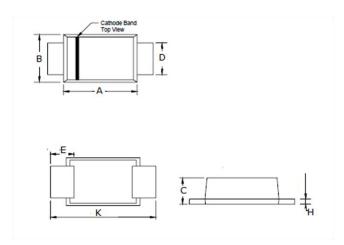
## **Ordering Information**

Device	Package	Marking	Qty per Reel	Reel Size
SSCSSS12D1	SOD-123FL	SS12	3000	7 Inch
SSCSSS14D1	SOD-123FL	SS14	3000	7 Inch
SSCSSS16D1	SOD-123FL	SS16	3000	7 Inch
SSCSSS110D1	SOD-123FL	SS110	3000	7 Inch
SSCSSS115D1	SOD-123FL	SS115	3000	7 Inch
SSCSSS120D1	SOD-123FL	SS120	3000	7 Inch

### **Mechanical Data**

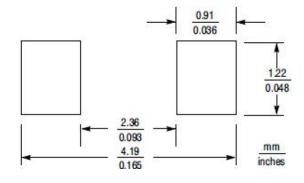
Case: SOD-123FL

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters				
	Min	Max			
Α	2.50	2.90			
В	1.50	1.90			
С	0.095	1.20			
D	0.70	1.20			
E	0.35	0.85			
Н	0	0.1			
K	3.40	3.90			

### **Recommended Pad outline**





### **DISCLAIMER**

SSCSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. SSCSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICIENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G,. OUTSIDE SPECIFIED POWER SUPPLY RANGE ) AND THEREFORE OUTSIDE THE WARRANTED RANGE.

OUR PRODUCT SPECIFICATIONS ARE ONLY VALID IF OBTAINED THROUGH THE COMPANY'S OFFICIAL WEBSITE, CRM SYSTEM, OR OUR SALES PERSONNEL CHANNELS. IF CHANGES OR SPECIAL VERSIONS ARE INVOLVED, THEY MUST BE STAMPED WITH A QUALITY SEAL AND MARKED WITH A SPECIAL VERSION NUMBER TO BE VALID.