



# SSCS5817D1-SSCS5819D1

## SSCS5817D1/ SSCS5818D1 / SSCS5819D1

### Schottky Barrier Diode

#### ● Features

- ✧ Low Forward Voltage Drop (VF)
- ✧ Better Efficiency and Cooler Operation
- ✧ Guard Ring Construction for Transient Protection

#### ● PIN configuration



**SOD-123**



**Circuit Diagram**



**Marking**

(5817:SJ 5818:SK 5819:SL)

#### ● Applications

- ✧ Low Voltage Rectification
- ✧ High-Efficiency DC-DC Conversion
- ✧ Switch Mode Power Supply
- ✧ Inverse Polarity Protection

#### ● Absolute maximum rating @T<sub>A</sub>=25°C

Parameter	Symbol	5817D1	5818D1	5819D1	Unit
Non-repetitive Peak Reverse Voltage	V <sub>RM</sub>				
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>				
DC Blocking Voltage	V <sub>R</sub>				
Average Rectified Output Current	I <sub>O</sub>		1		A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>		9		A
Power Dissipation	P <sub>D</sub>		250		mW
Thermal Resistance Junction to Ambient (Typ)	R <sub>θJA</sub>		170		°C/W
Operating Temperature	T <sub>J</sub>		-55 ~ +125		°C
Storage Temperature	T <sub>STG</sub>		-55 ~ +155		°C

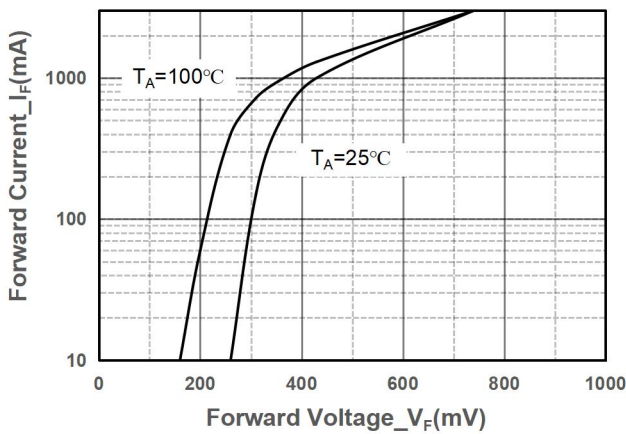


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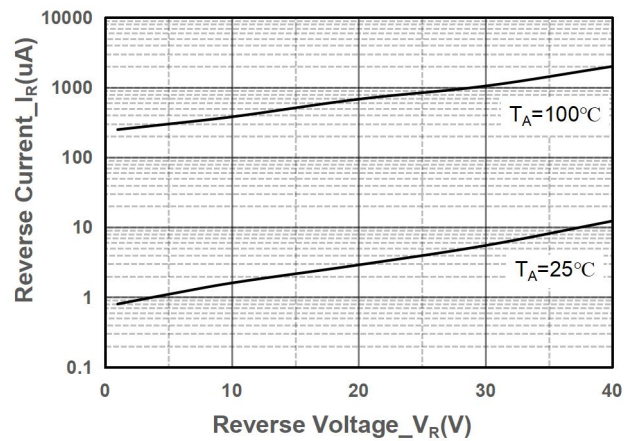
## Electrical Characteristics @T<sub>A</sub>=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 1mA	5817D1	20		V
			5818D1	30		
			5819D1	40		
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1A	5817D1		0.45	V
		I <sub>F</sub> = 3A			0.75	
		I <sub>F</sub> = 1A	5818D1		0.55	
		I <sub>F</sub> = 3A			0.875	
		I <sub>F</sub> = 1A	5819D1		0.6	
		I <sub>F</sub> = 3A			0.9	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 20V	5817D1	1		mA
		V <sub>R</sub> = 30V	5818D1			
		V <sub>R</sub> = 40V	5819D1			
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 4V, f = 1MHz			120	pF

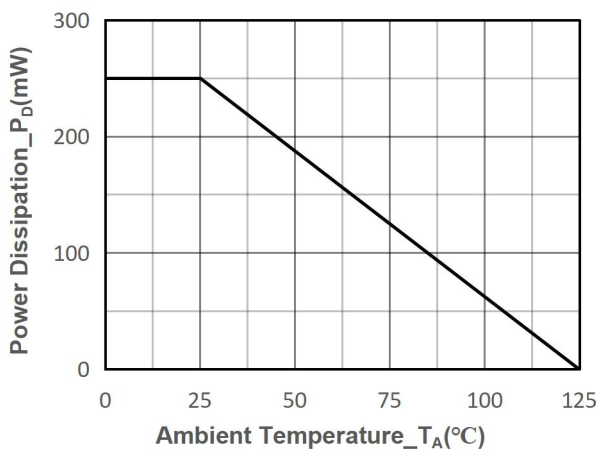
## Typical Performance Characteristics



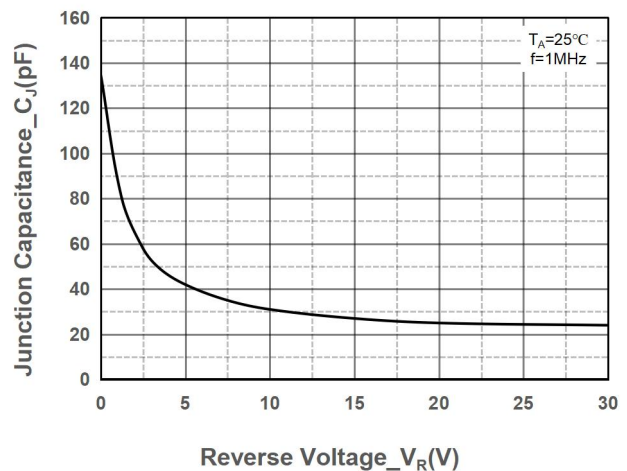
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



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## ● Package Information

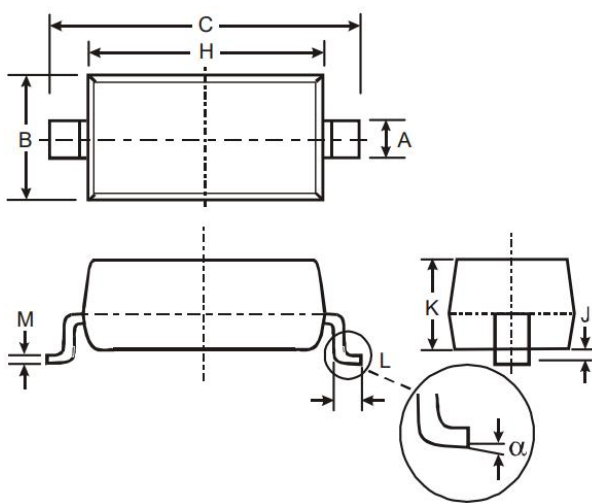
### Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCS5817D1	SOD-123	SJ	3000	7 Inch
SSCS5818D1	SOD-123	SK	3000	7 Inch
SSCS5819D1	SOD-123	SL	3000	7 Inch

### Mechanical Data

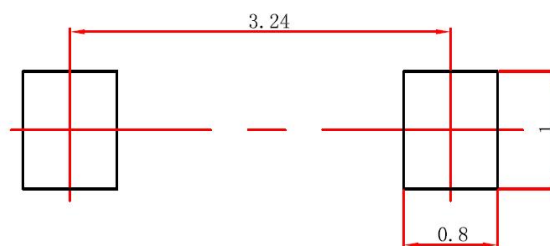
Case: SOD-123

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.45	0.65
B	1.50	1.70
C	3.55	3.85
H	2.6	2.8
J	0.00	0.10
K	1.05	1.15
L	0.25	0.45
M	0.08	0.15
$\alpha$	0	8°

### Recommended Pad outline (Unit:mm)





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