



# SSCS5817D3-SSCS5819D3

## SSCS5817D3/ SSCS5818D3 / SSCS5819D3

### Schottky Barrier Diode

#### ● Features

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

#### ● PIN configuration



**SOD-523**

#### ● Applications

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



**Circuit Diagram**



**Marking**

(5817:SJ 5818:SK 5819:SL)

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

Parameter	Symbol	5817D3	5818D3	5819D3	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>	5			A
Power Dissipation	P <sub>D</sub>	250			mW
Thermal Resistance Junction to Ambient (Typ)	R <sub>θJA</sub>	320			°C/W
Operating Temperature	T <sub>J</sub>	-55 ~ +125			°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +155			°C

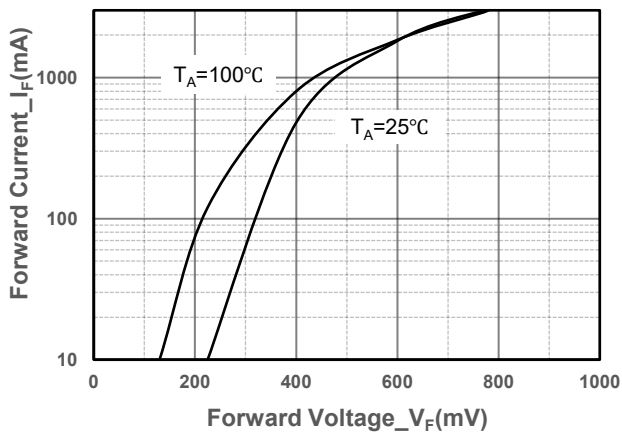


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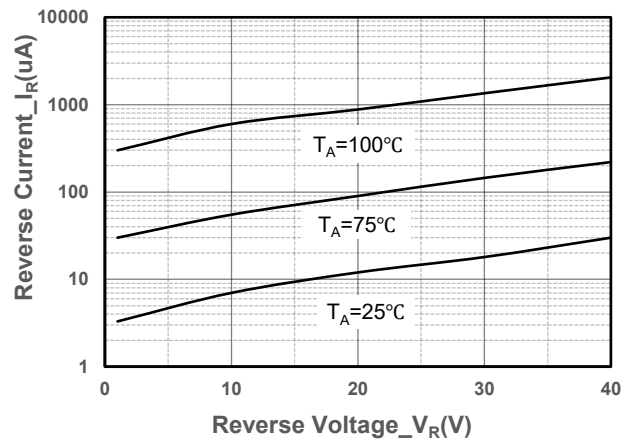
## Electrical Characteristics @T<sub>A</sub>=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 1mA	5817D3	20		V
			5818D3	30		
			5819D3	40		
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 0.5A	5817D3		0.34	V
		I <sub>F</sub> = 1A			0.45	
		I <sub>F</sub> = 0.5A	5818D3		0.36	
		I <sub>F</sub> = 1A			0.55	
		I <sub>F</sub> = 0.5A	5819D3		0.50	
		I <sub>F</sub> = 1A			0.60	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 20V	5817D3	1		mA
		V <sub>R</sub> = 30V	5818D3			
		V <sub>R</sub> = 40V	5819D3			
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 4V, f = 1MHz			120	pF

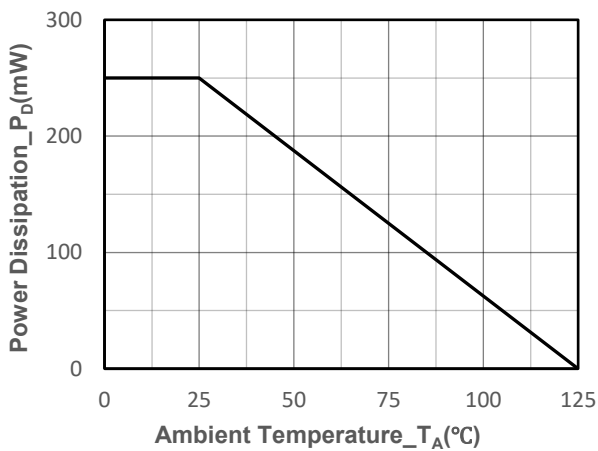
## Typical Performance Characteristics



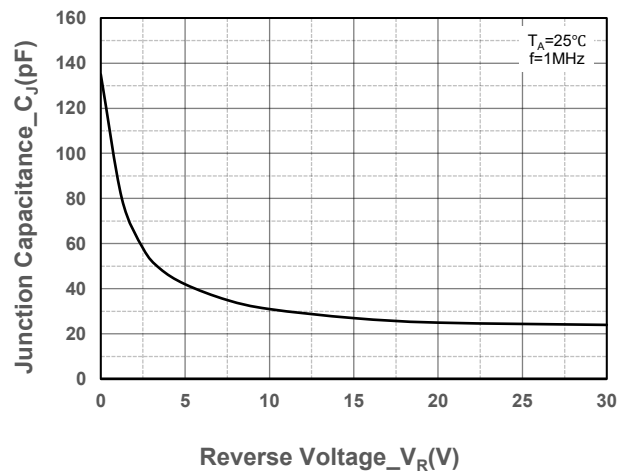
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



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## ● Package Information

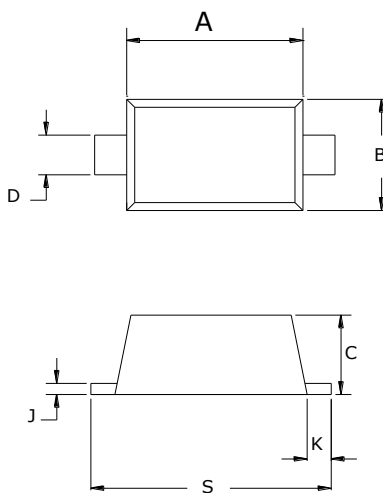
### Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCS5817D3	SOD-523	SJ	3000	7 Inch
SSCS5818D3	SOD-523	SK	3000	7 Inch
SSCS5819D3	SOD-523	SL	3000	7 Inch

### Mechanical Data

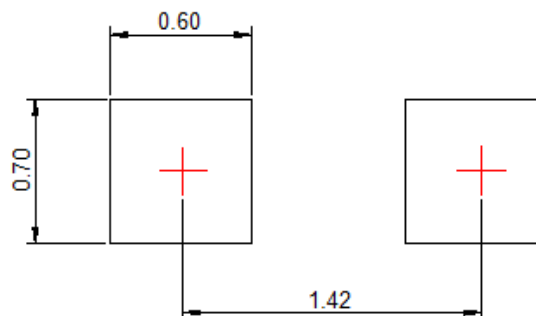
Case: SOD-523

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	1.10	1.30
B	0.75	0.85
C	0.51	0.70
D	0.25	0.35
J	0.08	0.15
K	0.15	0.25
S	1.50	1.70

### Recommended Pad outline (Unit: mm)





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