



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_A=25°C

Parameter	Symbol	5817D3	5818D3	5819D3	Unit
Non-repetitive Peak Reverse Voltage	V _{RM}				
Peak Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
Average Rectified Output Current	I _O		1		A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}		5		A
Power Dissipation	P _D		250		mW
Thermal Resistance Junction to Ambient (Typ)	R _{θJA}		320		°C/W
Operating Temperature	T _J		-55 ~ +125		°C
Storage Temperature	T _{STG}		-55 ~ +155		°C

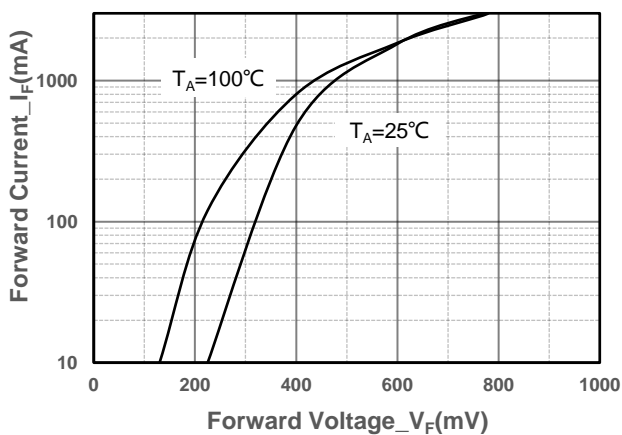


SSCS5817D3-SSCS5819D3

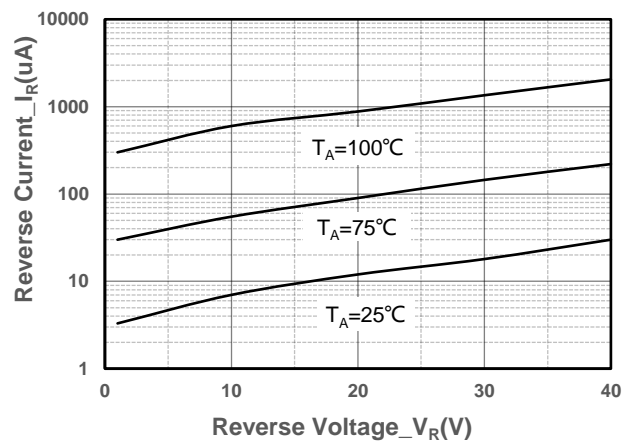
Electrical Characteristics @T_A=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V _R	I _R = 1mA	5817D3	20		V
			5818D3	30		
			5819D3	40		
Forward Voltage	V _F	I _F = 0.5A	5817D3		0.34	V
		I _F = 1A			0.45	
		I _F = 0.5A	5818D3		0.36	
		I _F = 1A			0.55	
		I _F = 0.5A	5819D3		0.38	
		I _F = 1A			0.60	
Reverse Current	I _R	V _R = 20V	5817D3	1		mA
		V _R = 30V	5818D3			
		V _R = 40V	5819D3			
Junction Capacitance	C _J	V _R = 4V, f = 1MHz			120	pF

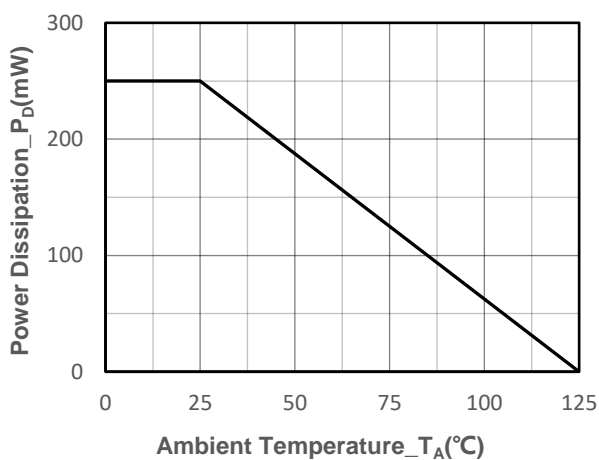
Typical Performance Characteristics



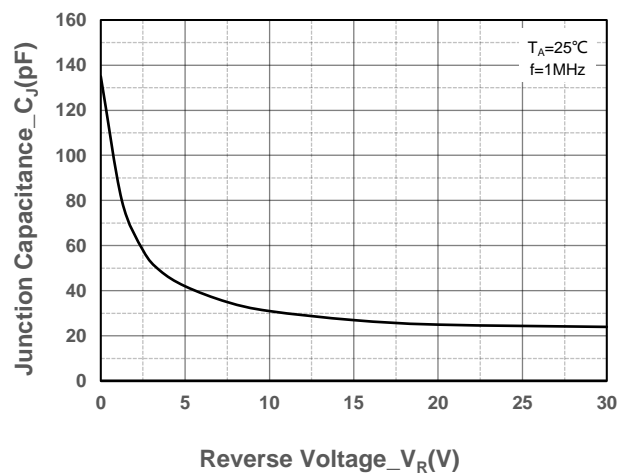
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



SSCS5817D3-SSCS5819D3

● Package Information

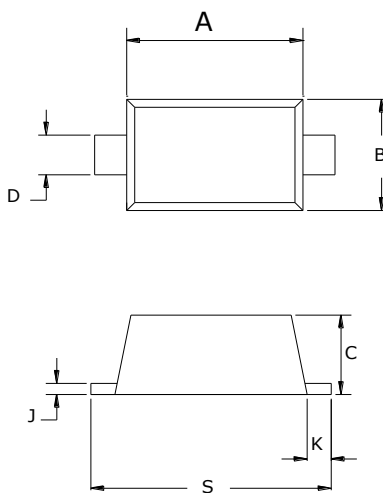
Ordering Information

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

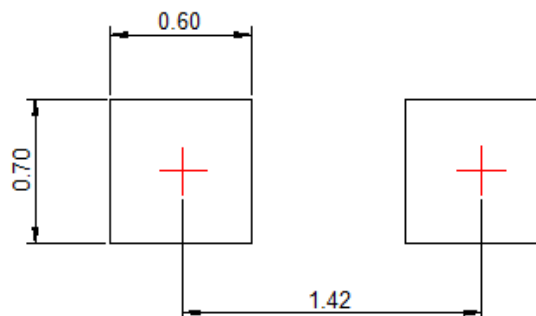
Case: SOD-523

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)





DISCLAIMER

AFSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. AFSEMI 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.