



SSCS5817D2-SSCS5819D2

SSCS5817D2/ SSCS5818D2 / SSCS5819D2

Schottky Barrier Diode

● Features

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

● PIN configuration



SOD-323

● 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	5817D2	5818D2	5819D2	Unit
Non-repetitive Peak Reverse Voltage	V _{RM}				
Peak Repetitive Peak Reverse Voltage	V _{RPM}	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}	9			A
Power Dissipation	P _D	250			mW
Operating Temperature	T _J	125			°C
Storage Temperature	T _{STG}	-40 ~ +125			°C

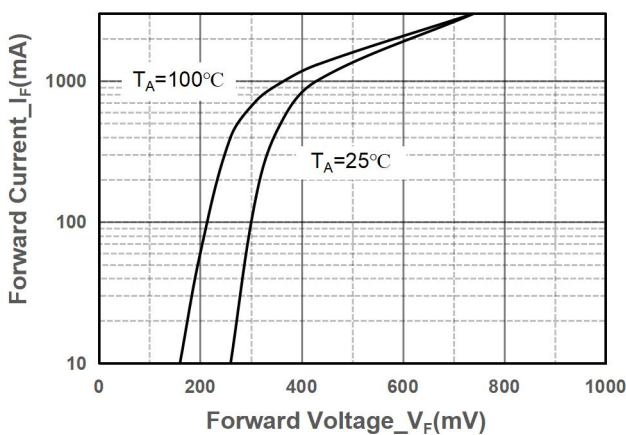


SSCS5817D2-SSCS5819D2

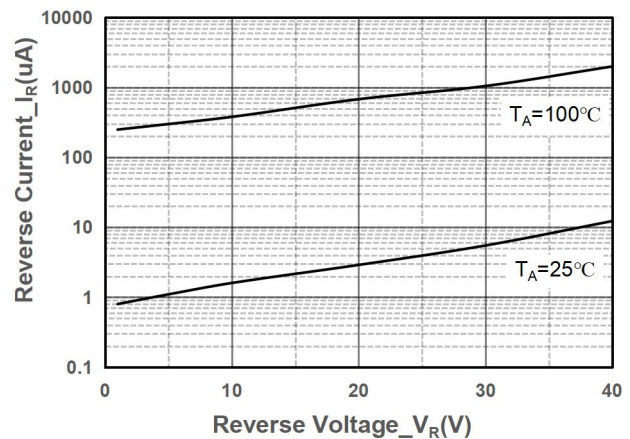
Electrical Characteristics @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_R	$I_R = 1\text{mA}$	5817D2	20		V
			5818D2	30		
			5819D2	40		
Forward Voltage	V_F	$I_F = 1\text{A}$	5817D2		0.45	V
		$I_F = 3\text{A}$			0.75	
		$I_F = 1\text{A}$	5818D2		0.55	
		$I_F = 3\text{A}$			0.875	
		$I_F = 1\text{A}$	5819D2		0.6	
		$I_F = 3\text{A}$			0.9	
Reverse Current	I_R	$V_R = 20\text{V}$	5817D2	1		mA
		$V_R = 30\text{V}$	5818D2			
		$V_R = 40\text{V}$	5819D2			
Junction Capacitance	C_J	$V_R=4\text{V}, f=1\text{MHz}$			120	pF

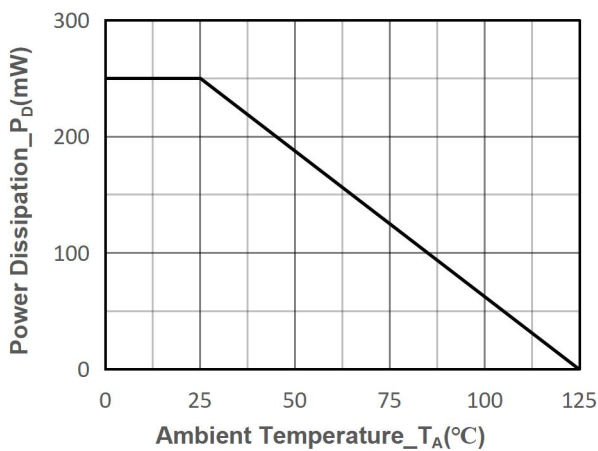
Typical Performance Characteristics



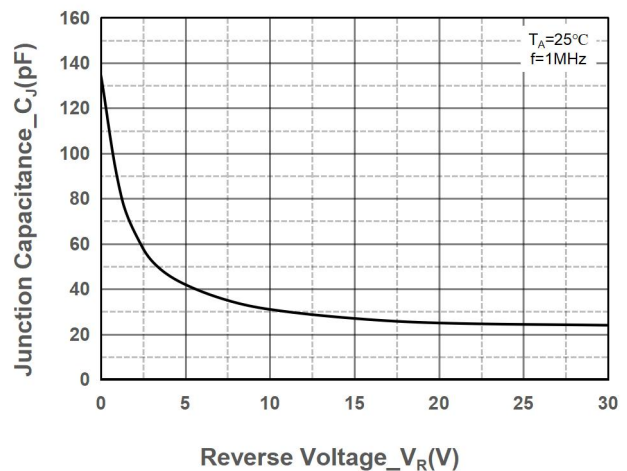
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



SSCS5817D2-SSCS5819D2

● Package Information

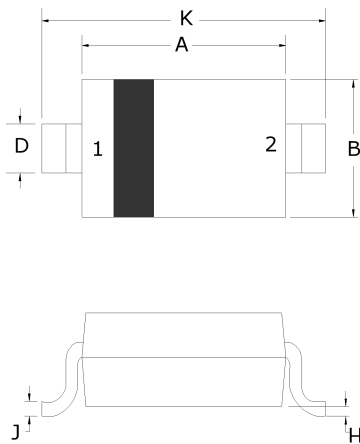
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCS5817D2	SOD-323	SJ	3000	7 Inch
SSCS5818D2	SOD-323	SK	3000	7 Inch
SSCS5819D2	SOD-323	SL	3000	7 Inch

Mechanical Data

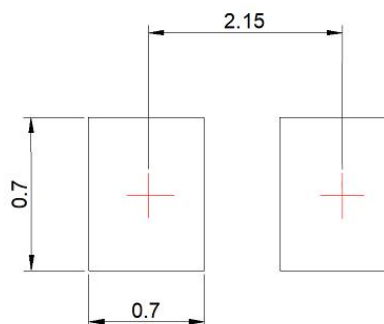
Case: SOD-323

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters	
	Min	Max
A	1.60	1.80
B	1.2	1.40
C	0.80	0.90
D	0.25	0.35
E	0.15REF	
H	0	0.10
J	0.08	0.15
K	2.50	2.70

Recommended Pad outline (Unit:mm)





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.