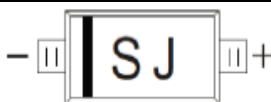


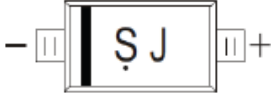
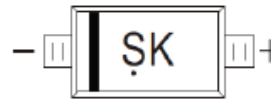



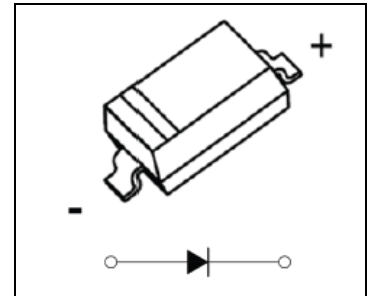
**B5817W-B5819W SCHOTTKY BARRIER DIODE**

**Features:**

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.

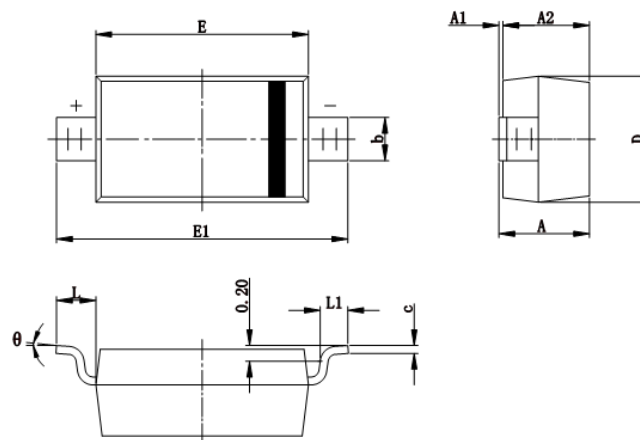
**Marking:**

B5817W:SJ	B5818W:SK	BB5819W:SL
		
		



The marking bar indicates the cathode  
Solid dot = Green molding compound device, if none, the normal device.

**Mechanical Dimensions: In mm/Inches**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0° - 8°		0° - 8°	

**SOD-123**

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Ordering Information:**

Device	Package	Shipping
B5817W-5819W	SOD-123(Pb-Free)	3000pcs / reel

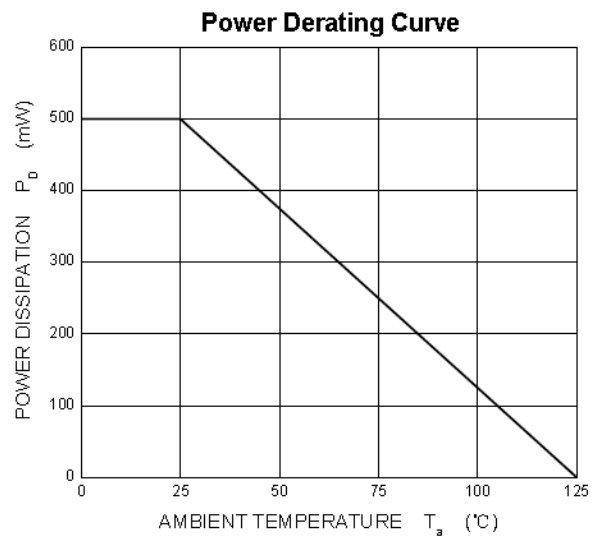
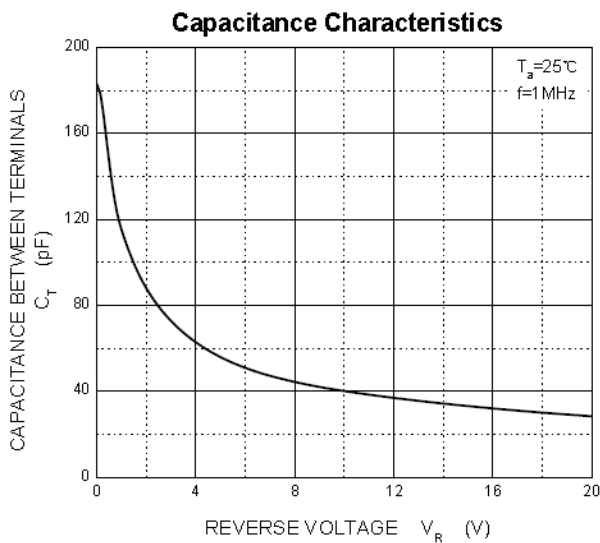
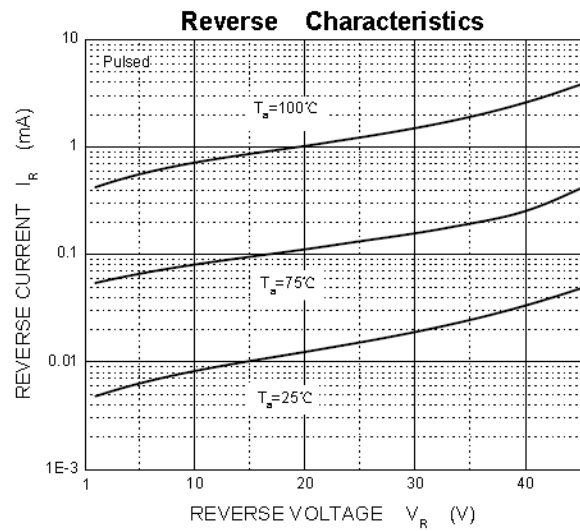
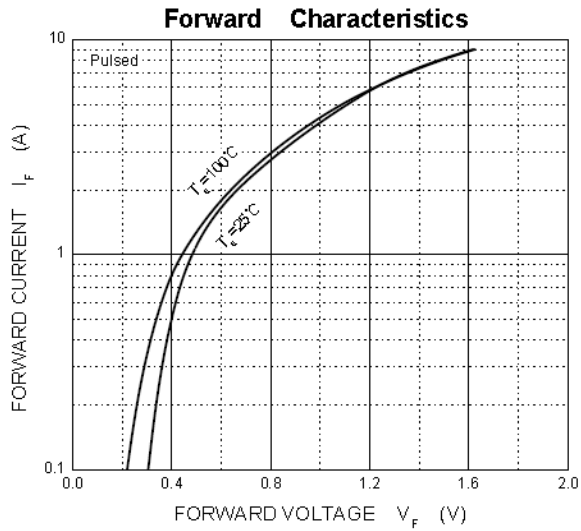
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	20	30	40	
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	V
Working Peak Reverse Voltage	$V_{RWM}$				
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	$I_O$	1			A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	9			A
Repetitive Peak Forward Current	$I_{FRM}$	1.5			A
Power Dissipation	$P_D$	500			mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200			$^\circ\text{C/W}$
Junction Temperature	$T_j$	125			$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55~+150			$^\circ\text{C}$

**Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Parameter	Symbol	Test conditions	Min	Max	Unit	
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	B5817W	20	-	V
			B5818W	30	-	
			B5819W	40	-	
Reverse voltage leakage current	$I_R$	$V_R=20\text{V}$	B5817W	-	1	mA
		$V_R=30\text{V}$	B5818W			
		$V_R=40\text{V}$	B5819W			
Forward voltage	$V_F$	B5817W	$I_F=1\text{A}$	-	0.45	V
			$I_F=3\text{A}$		0.75	
		B5818W	$I_F=1\text{A}$	-	0.55	
			$I_F=3\text{A}$		0.875	
		B5819W	$I_F=1\text{A}$	-	0.60	
			$I_F=3\text{A}$		0.90	
Diode capacitance	$C_D$	$V_R=4\text{V}, f=1\text{MHz}$	-	120	pF	



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