

B5817W THRU B5819W SCHOTTKY BARRIER DIODE



Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams(approx)

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

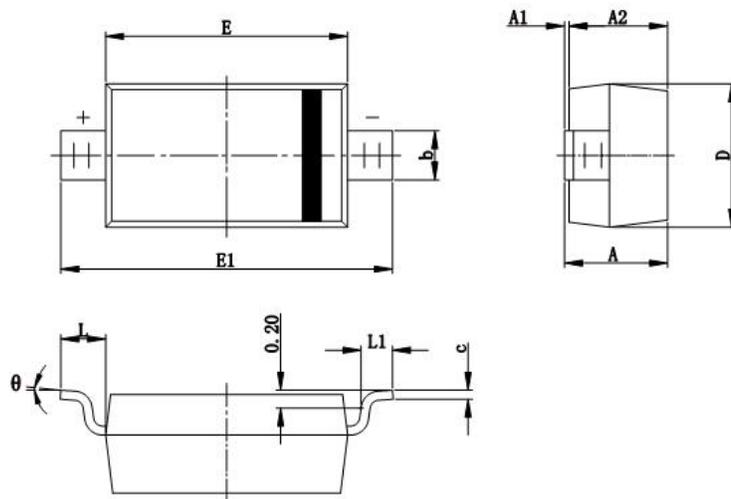
Parameter	Symbol	B5817W	B5818W	B5819W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	20	30	40	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_O	1			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			$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_j	125			$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~+150			$^{\circ}\text{C}$

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Max	Units
Reverse breakdown voltage*	V _(BR)	I _R =1mA B5817W B5818W B5819W	20 30 40	- - -	V
Reverse voltage leakage current*	I _R	V _R =20V V _R =30V V _R =40V B5817W B5818W B5819W	-	1	mA
Forward voltage*	V _F	B5817W I _F =1A I _F =3A B5818W I _F =1A I _F =3A B5819W I _F =1A I _F =3A	-	0.45 0.75 0.55 0.875 0.60 0.90	V
Diode capacitance	C _D	V _R =4V, f=1MHz	-	120	pF

* Pulse width < 300 μs, duty cycle < 2%

Mechanical Dimensions SOD-123



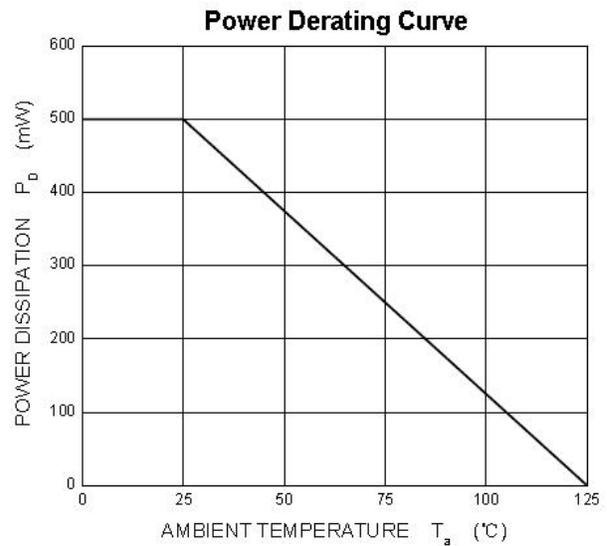
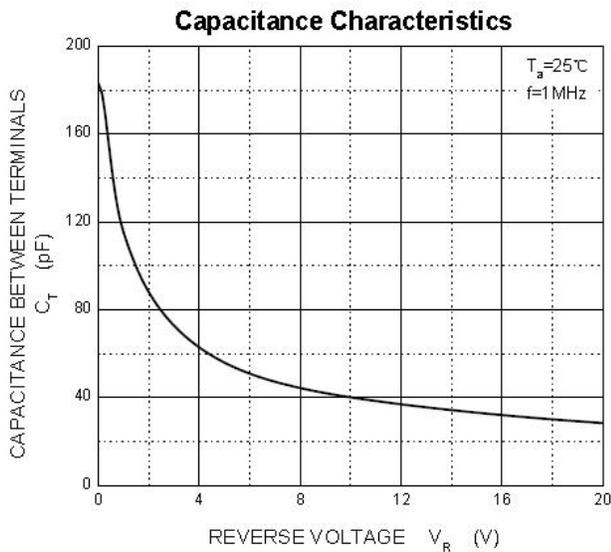
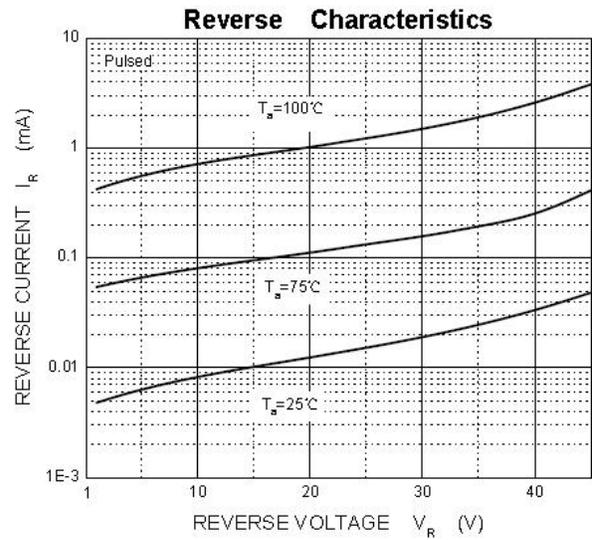
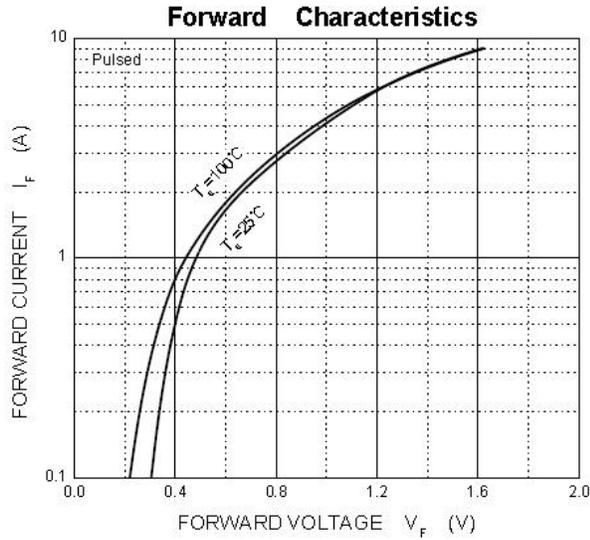
SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF.		0.020 REF.	
L1	0.250	0.450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

Ordering Information

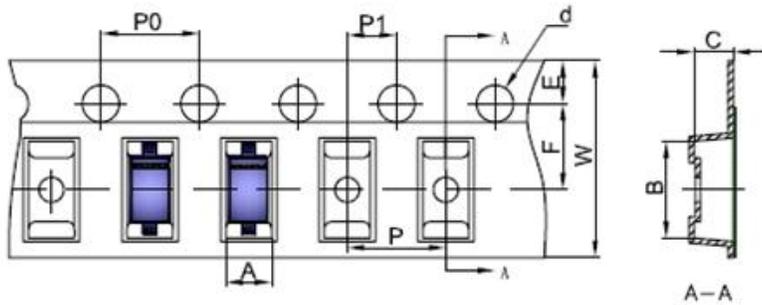
Device	Package	Shipping
B5817W THRU B5819W	SOD-123 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Ratings and Characteristics Curves

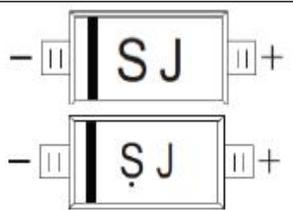
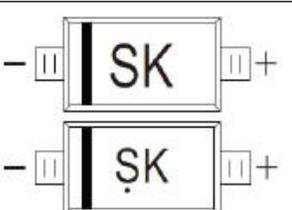
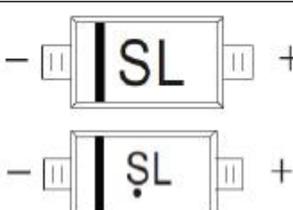


Carrier Tape Specification SOD-123



SYMBOL	Millimeters	
	Min.	Max.
A	1.80	1.90
B	3.89	3.99
C	1.52	1.62
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

Marking Diagram

B5817W:SJ	B5818W:SK	B5819W:SL
		

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

**Technical Data
Data Sheet N1752, Rev.A**



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