



# DONGGUAN NANJING ELECTRONICS LTD.,

## SOD-323 Plastic-Encapsulate Diodes

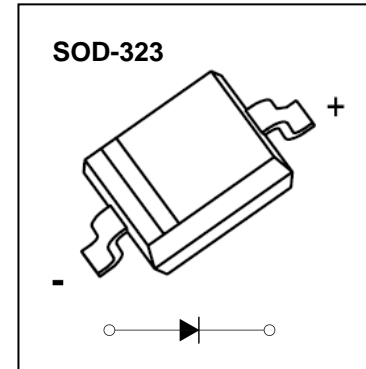
### B5817WS-5819WS SCHOTTKY BARRIER DIODE

#### FEATURES

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

#### MARKING:

B5817WS:SJ	B5818WS:SK	B5819WS:SL



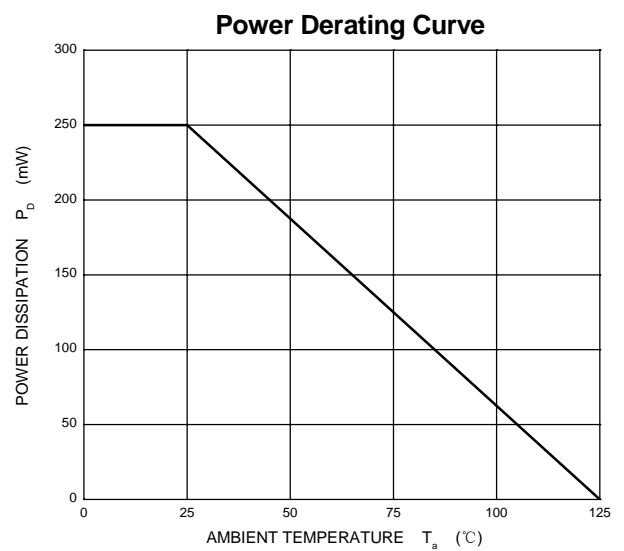
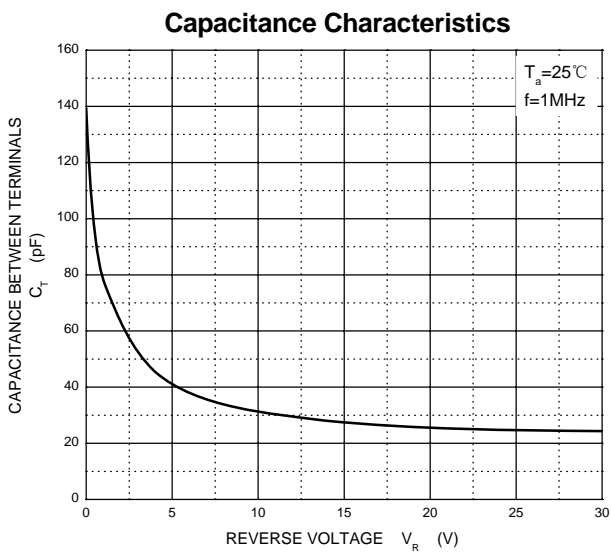
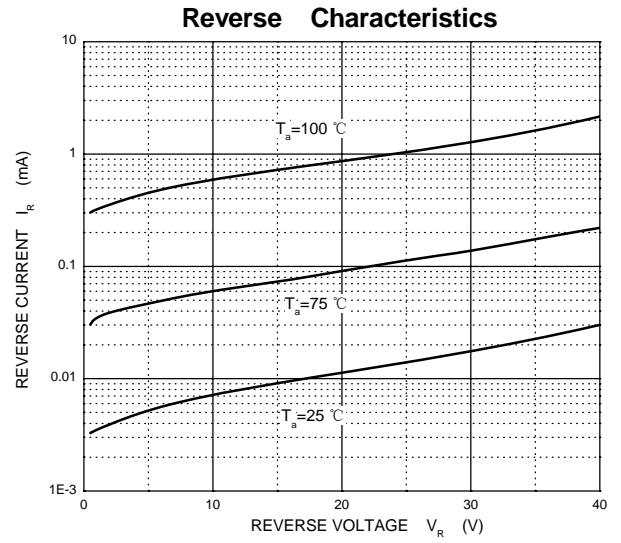
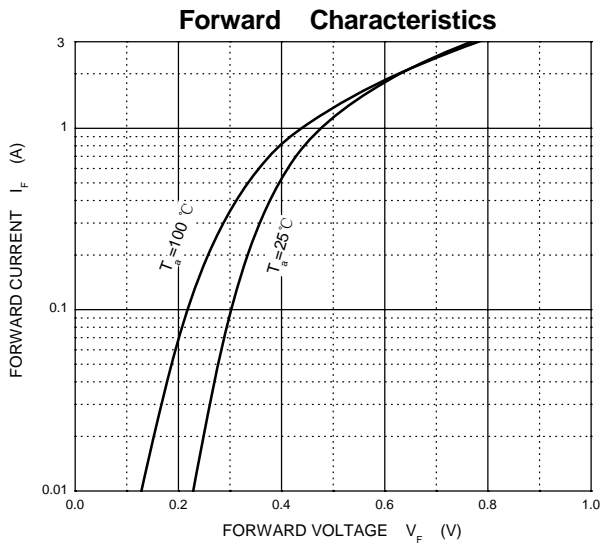
The marking bar indicates the cathode  
Solid dot = Green molding compound device, if none, the normal device.

#### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

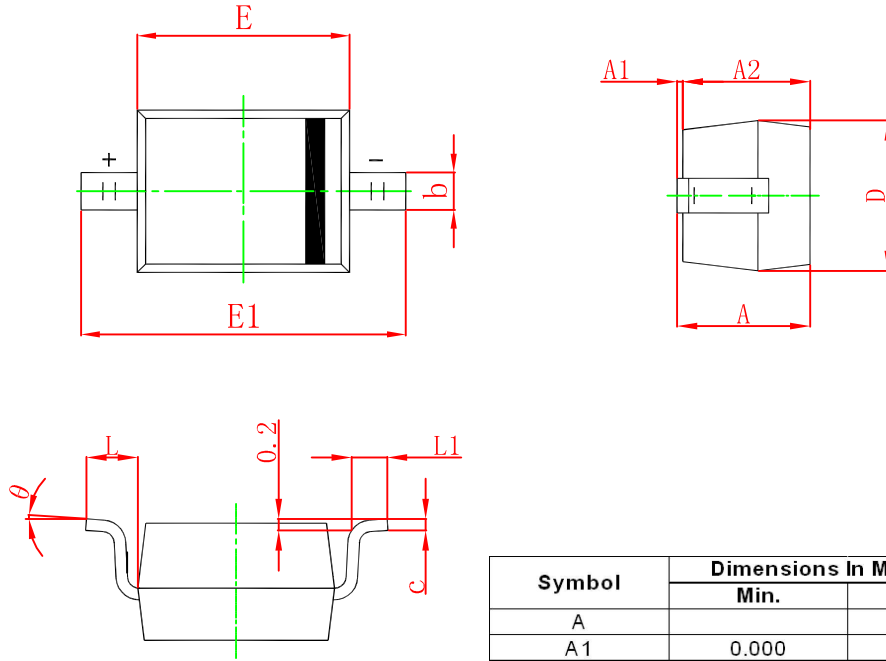
Parameter	Symbol	B5817WS	B5818WS	B5819WS	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	20	30	40	V
Peak repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Working peak reverse voltage	$V_{RWM}$				
DC blocking voltage	$V_R$				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	$I_O$	1			A
Forward surge current	$I_{FSM}$	9			A
Repetitive peak forward current	$I_{FRM}$	1.5			A
Power dissipation	$P_d$	250			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	400			°C/W
Junction temperature	$T_J$	125			°C
Storage temperature	$T_{STG}$	-55~+150			°C

#### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$			V
		B5817WS	20		
		B5818WS B5819WS	30 40		
Reverse voltage leakage current	$I_R$	$V_R=20V$		1	mA
		$V_R=30V$			
		$V_R=40V$			
Forward voltage	$V_F$	B5817WS	$I_F=1A$	0.45	V
			$I_F=3A$	0.75	
		B5818WS	$I_F=1A$	0.55	V
			$I_F=3A$	0.875	
		B5819WS	$I_F=1A$	0.6	V
			$I_F=3A$	0.9	
Diode capacitance	$C_D$	$V_R=4V, f=1MHz$		120	pF

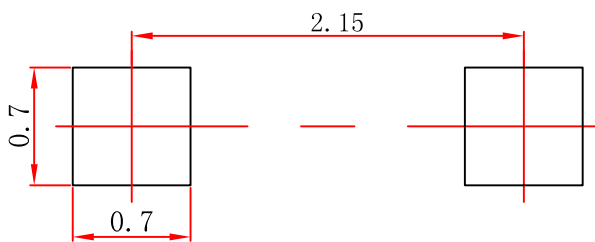


## SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

## SOD-323 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.