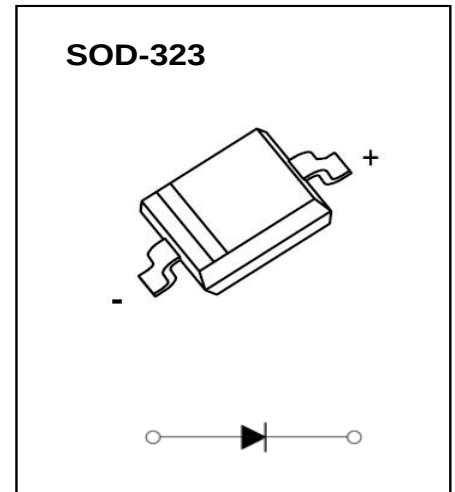


SOD-323 Plastic-Encapsulate Diodes**B5817WS/B5818WS/B5819WS****SCHOTTKY BARRIER DIODE****FEATURES**

- For Use In Low Voltage, High Frequency Inverters Freewheeling, And Polarity Protection Applications

MARKING

B5817WS	B5818WS	B5819WS

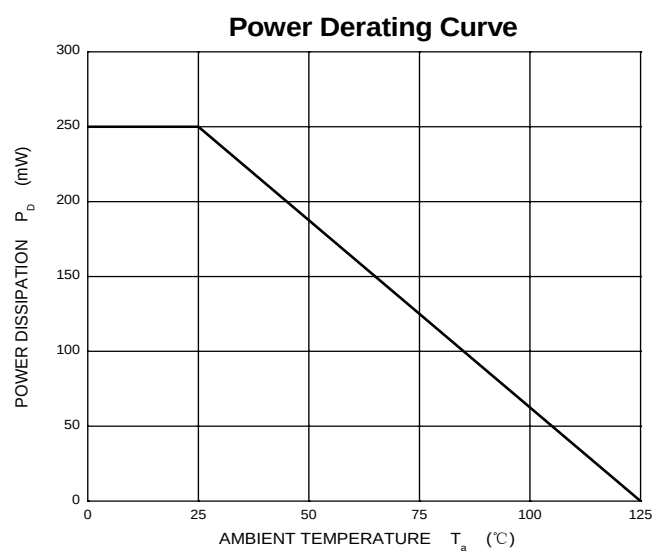
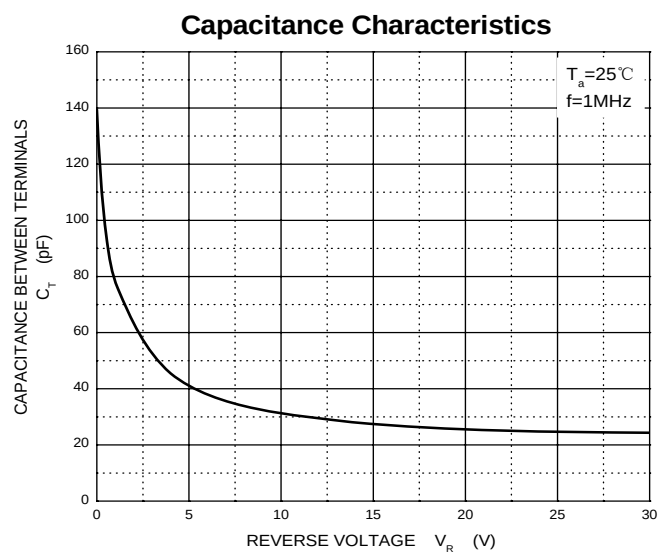
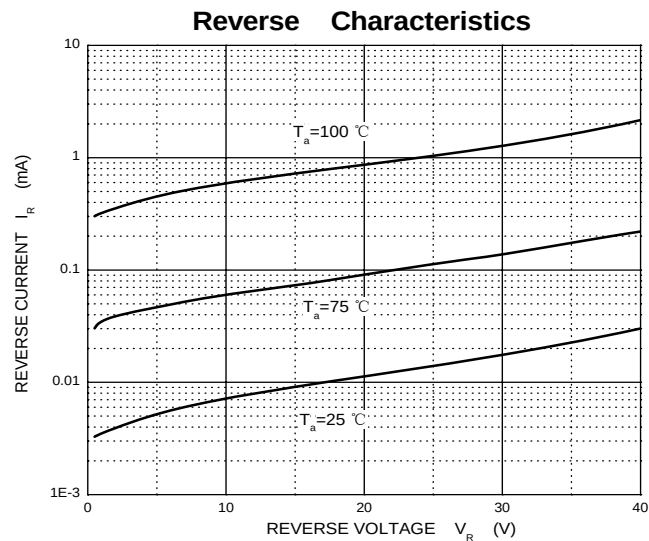
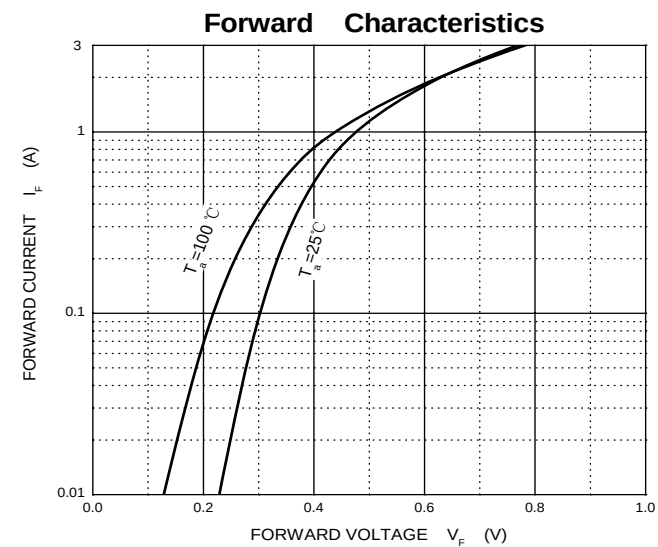
**MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

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
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	250			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	400			$^{\circ}\text{C/W}$
OperationJunction temperature Range	T_J	$-40\sim+125$			$^{\circ}\text{C}$
Storage temperature Range	T_{STG}	$-55\sim+150$			$^{\circ}\text{C}$

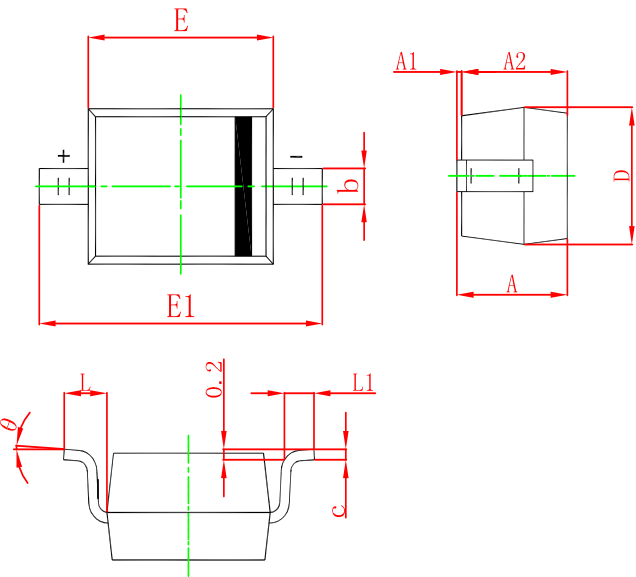
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

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

Typical Characteristics

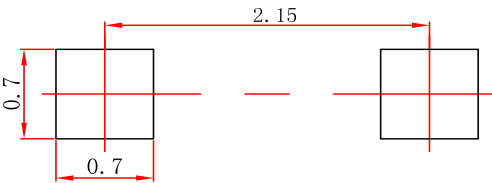


Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
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	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout (SOD-323)



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