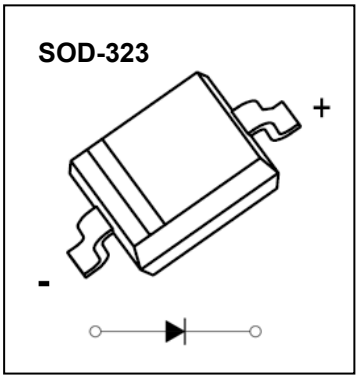
SOD-323 Plastic-Encapsulate Diodes



FEATURES

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

MARKING:

B5817WS :SJ	B5818WS :SK	B5819WS :SL
		

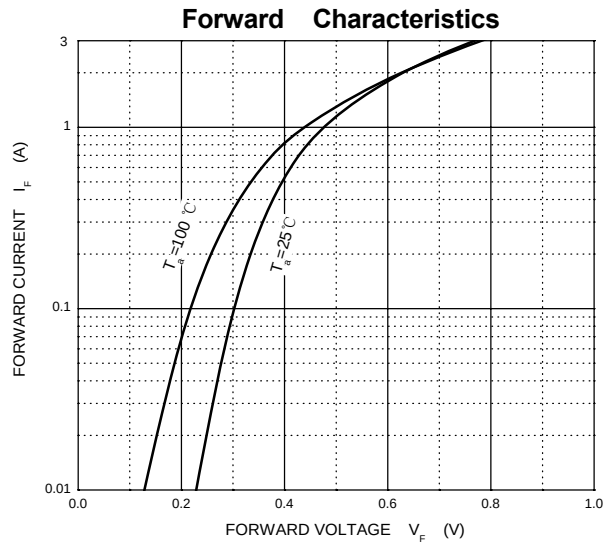
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

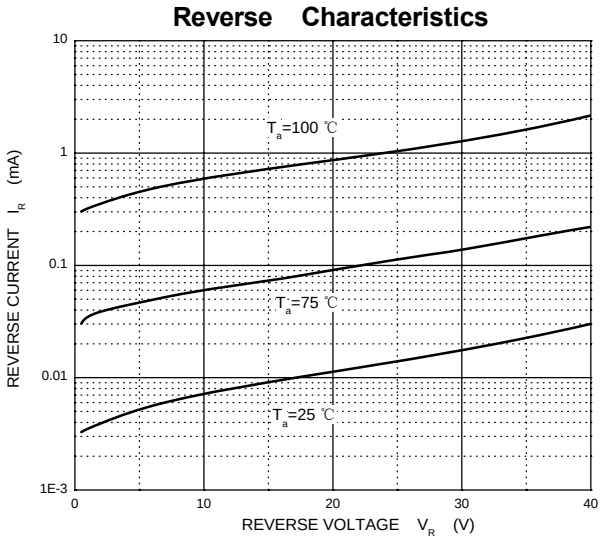
Parameter	Symbol	B5817WS	B5818WS	B5819WS	Unit
Non-repetitive peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive peak reverse voltage Working peak reverse voltage DC blocking voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_O	1			A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	9			A
Repetitive peak forward current	I_{FRM}	1.5			A
Power dissipation	Pd	250			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	400			℃/W
Junction temperature	T_J	125			℃
Storage temperature	T_{STG}	-55~+150			℃

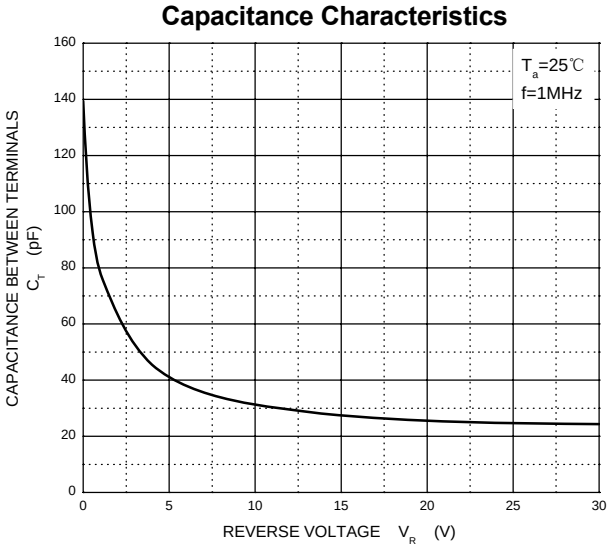
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

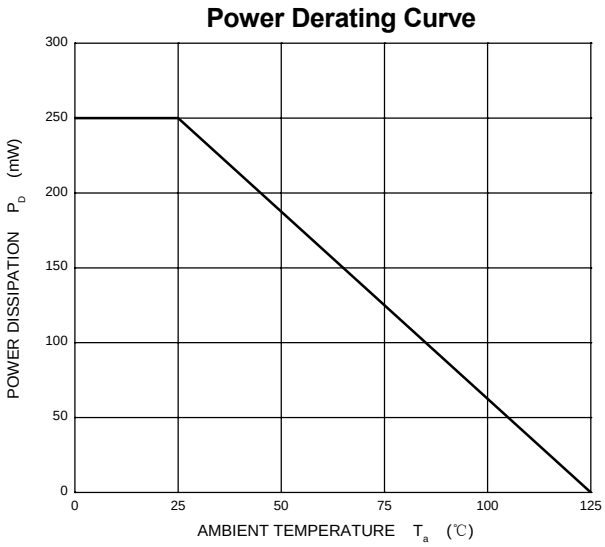
Parameter	Symbol	Test conditions		Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R= 1mA	B5817WS B5818WS B5819WS	20 30 40		V
Reverse voltage leakage current	I_R	V_R=20V V_R=30V V_R=40V	B5817WS B5818WS B5819WS		1	mA
Forward voltage	V_F	B5817WS	I_F=1A I_F=3A		0.45 0.75	V
		B5818WS	I_F=1A I_F=3A		0.55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

Typical Characteristics

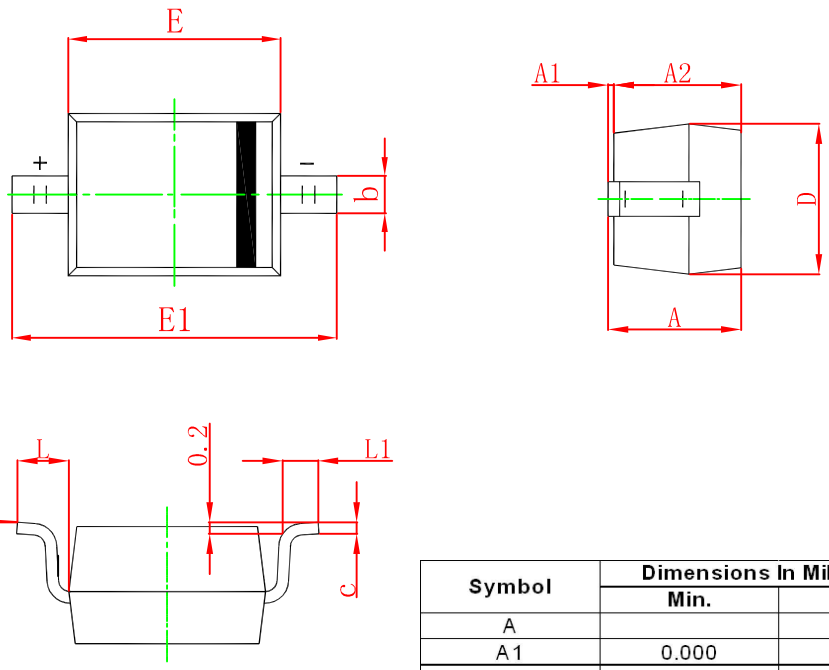






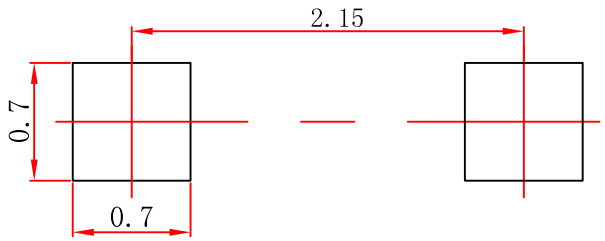


SOD-323 Package Outline Dimensions



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:±0.05mm.
3.The pad layout is for reference purposes only.