



### FEATURES

- Average Rectified Output Current:  $I_O=1$  A
- Power Dissipation of 500mw

### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
B5817W	SOD-123	SJ	3000
B5818W	SOD-123	SK	3000
B5819W	SOD-123	SL	3000



SOD-123



### MAXIMUM RATINGS (Ta=25 unless otherwise noted)

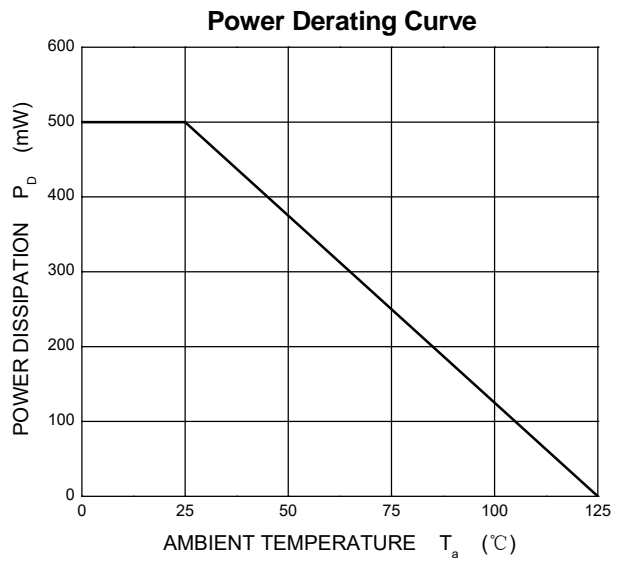
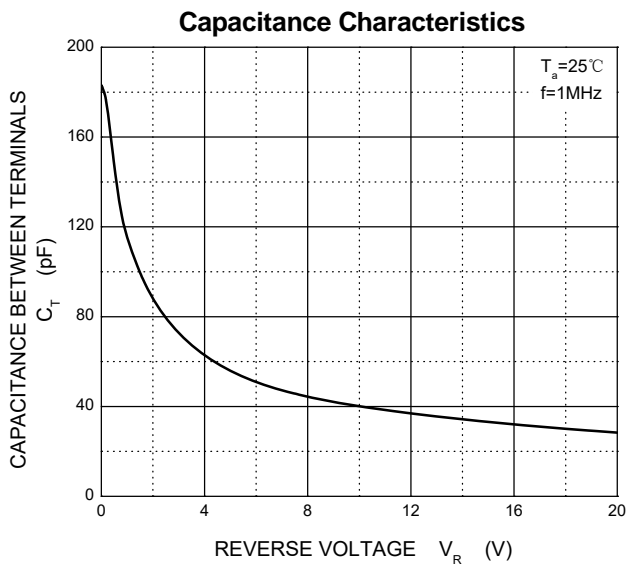
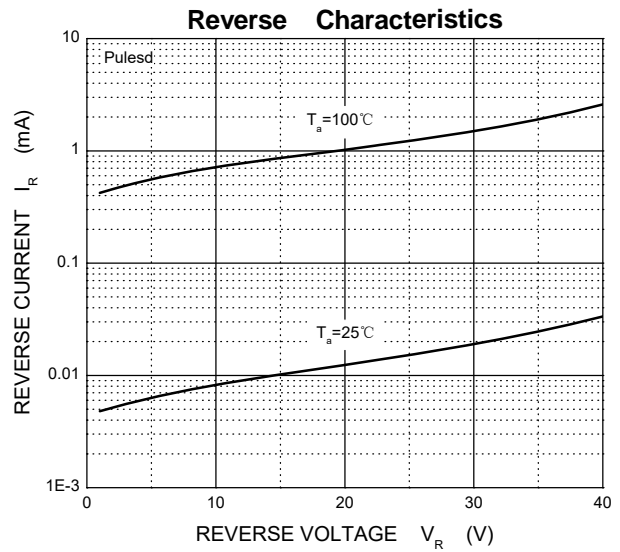
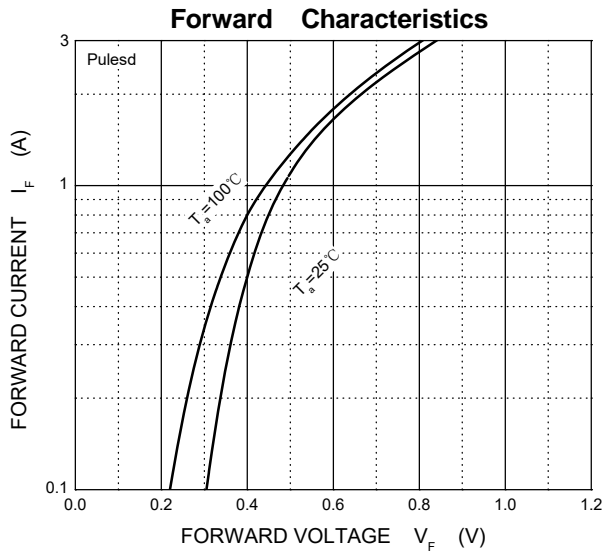
Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	20	30	40	V
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	$I_O$	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	$P_D$	500			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200			°C/W
Operation Junction temperature Range	$T_J$	-40~+125			°C
Storage Temperature Range	$T_{STG}$	-55~+150			°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1$ mA B5817W B5818W B5819W	20 30 40		V
Reverse voltage leakage current	$I_R$	$V_R=20$ V B5817W $V_R=30$ V B5818W $V_R=40$ V B5819W		1	mA
Forward voltage	$V_F$	B5817W $I_F=1$ A		0.45	V
		B5817W $I_F=3$ A		0.75	V
		B5818W $I_F=1$ A		0.55	V
Forward voltage	$V_F$	B5818W $I_F=3$ A		0.875	V
		B5819W $I_F=1$ A		0.6	V
Forward voltage	$V_F$	B5819W $I_F=3$ A		0.9	V
Diode capacitance	$C_D$	$V_R=4$ V, $f=1$ MHz		120	pF

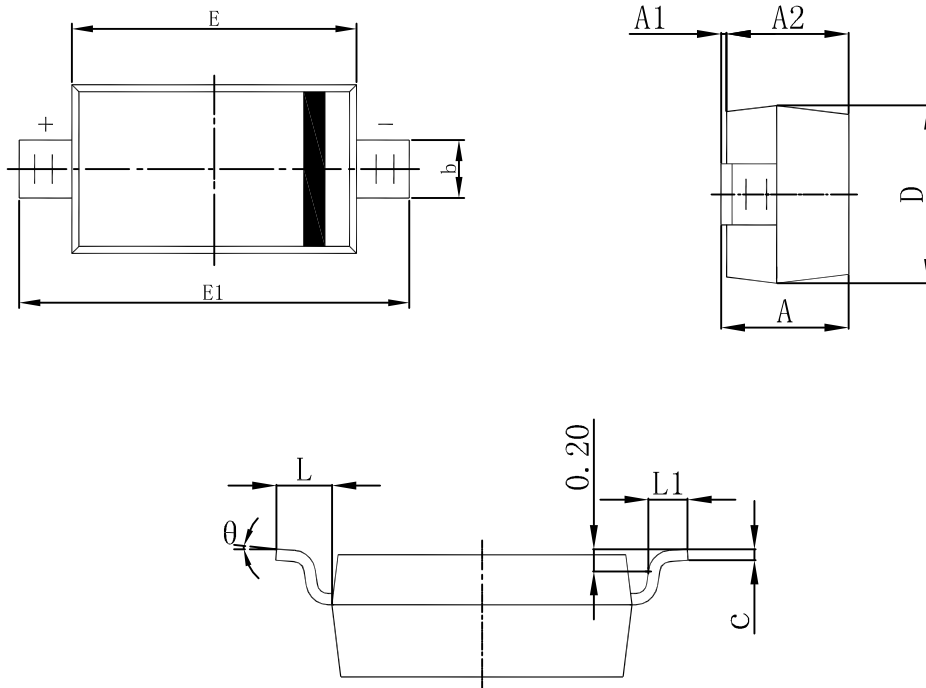


### Typical Characteristics





**SOD-123 Package Outline Dimensions**



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
$\theta$	0°	8°	0°	8°



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