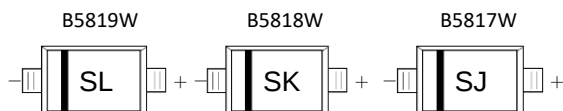


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance



SOD-123 top view



Marking and pin assignment



Pb-Free



Halogen-Free

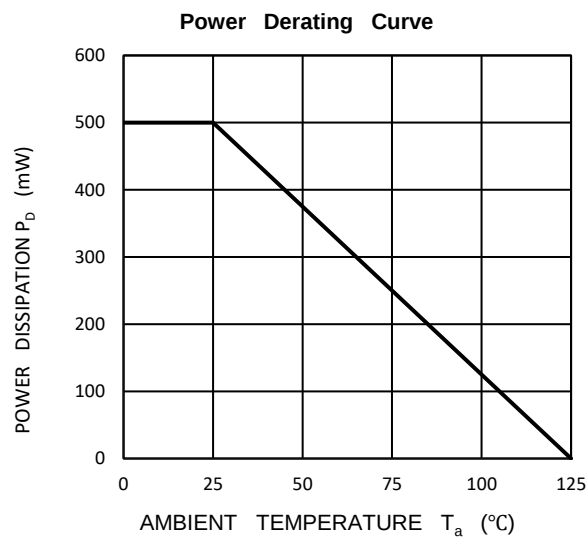
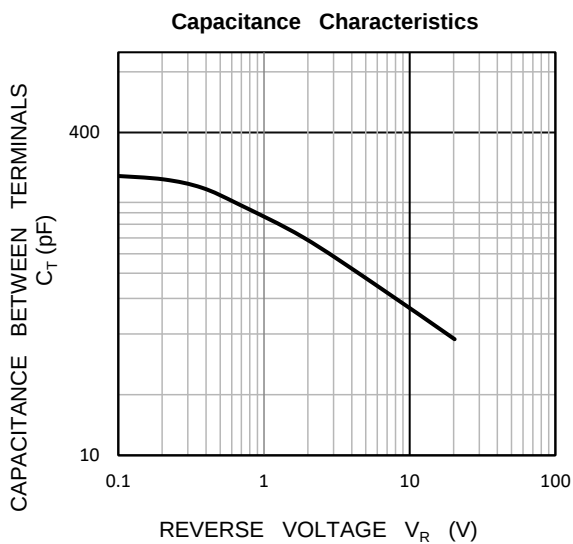
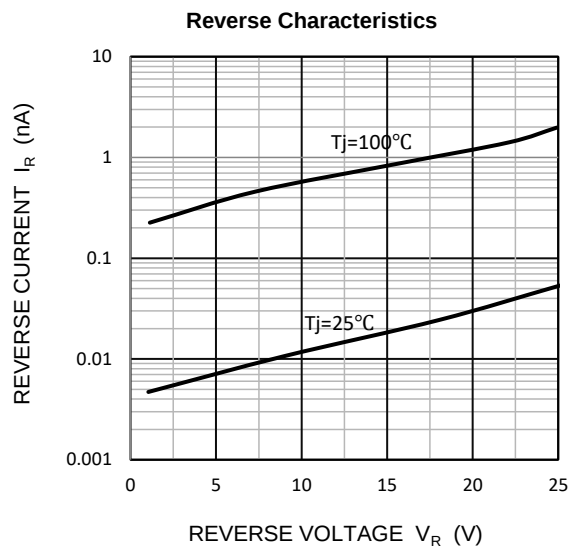
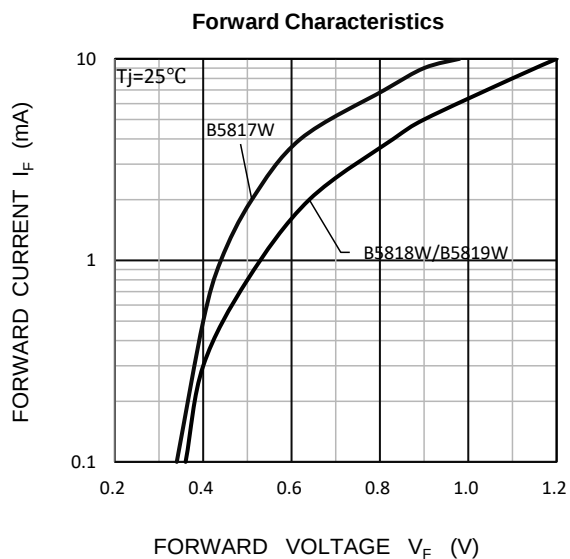
Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	B5819W	B5818W	B5817W	Unit
V_{RM}	Non-repetitive peak reverse voltage	40	30	20	V
V_{RRM}	Peak Repetitive Peak Reverse Voltage	40	30	20	V
V_{RWM}	Working Peak Reverse Voltage				
V_R	DC Blocking Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	28	21	14	V
I_O	Average rectified output current	1			A
I_{FRM}	Repetitive peak forward current	1.5			A
I_{FSM}	Non-repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$	9			A
P_D	Power Dissipation	500			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200			$^{\circ}\text{C/W}$
T_J	Junction Temperature	$-40\sim+125$			$^{\circ}\text{C}$
T_{stg}	Storage Temperature	$-55\sim+150$			$^{\circ}\text{C}$

Electrical Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

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

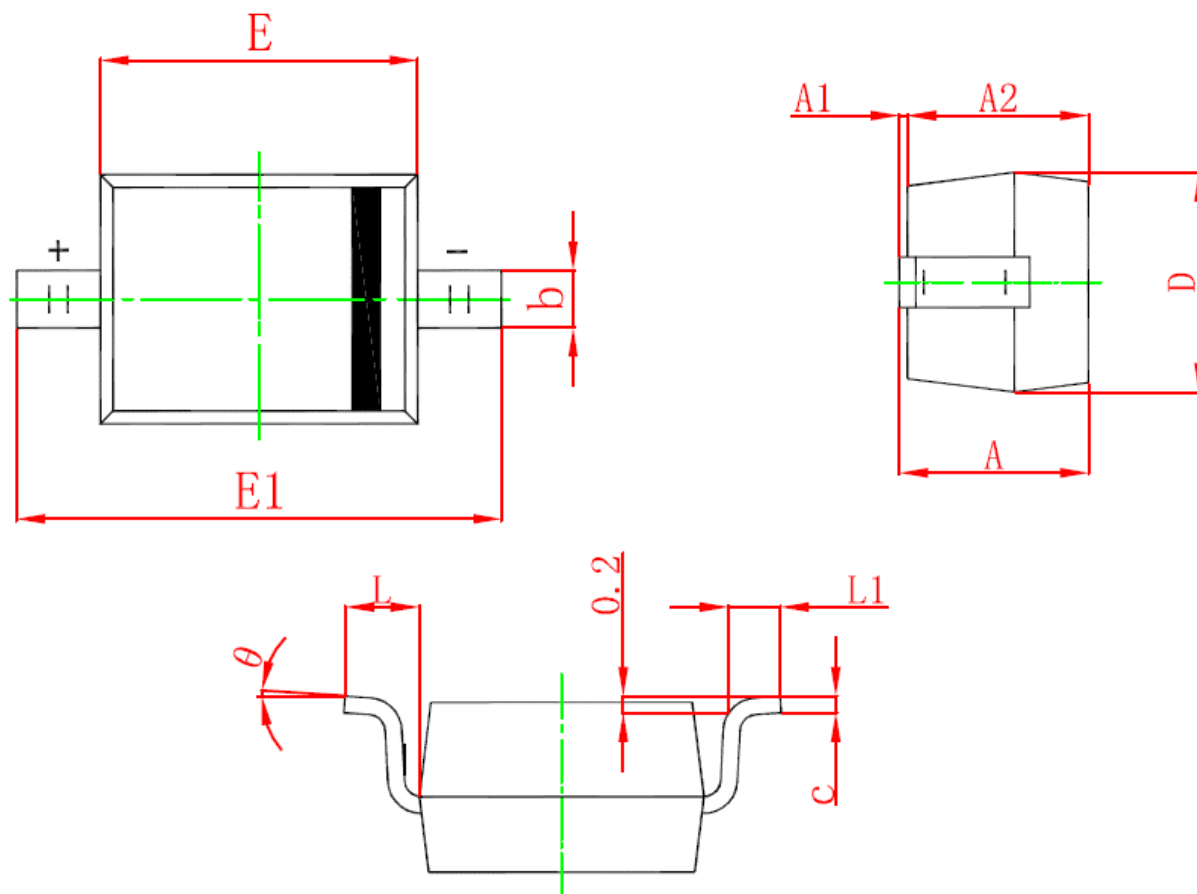
Typical Operating Characteristics



Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
B5819W	SOD-123	SL	3000	45000	180000	7"reel
B5818W		SK				
B5817W		SJ				

SOD-123 Package information



Symbol	Dimensions in Millimeters(mm)		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
θ	0°	8°	0°	8°