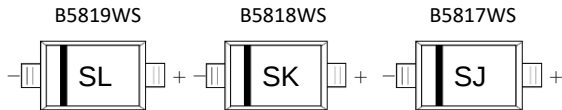


Features

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



SOD-323 top view



Marking and pin assignment



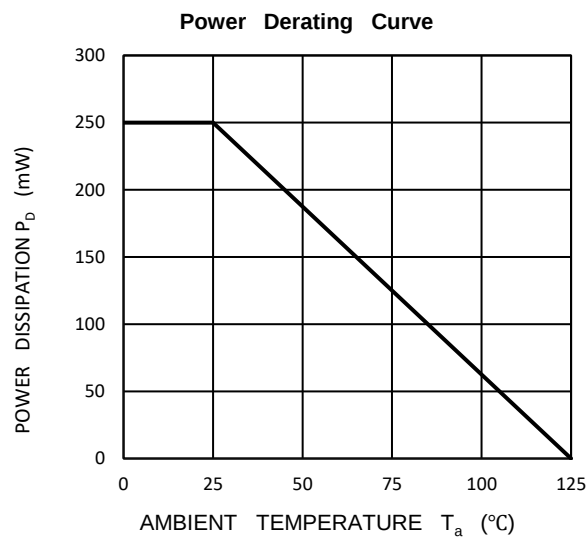
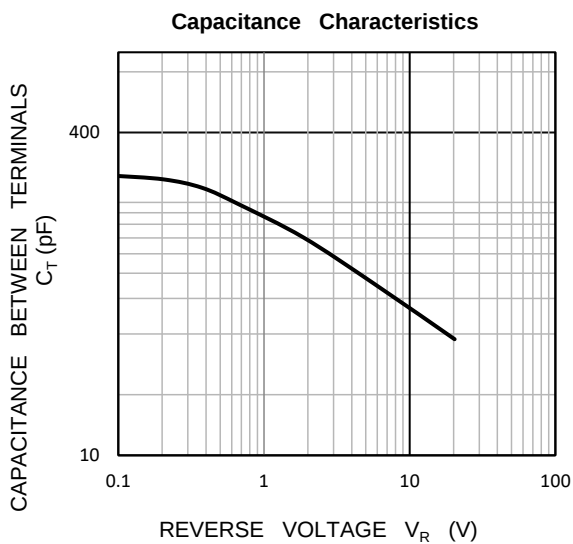
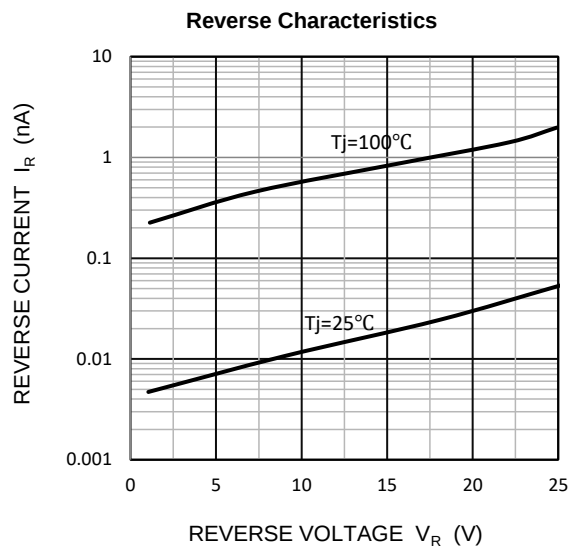
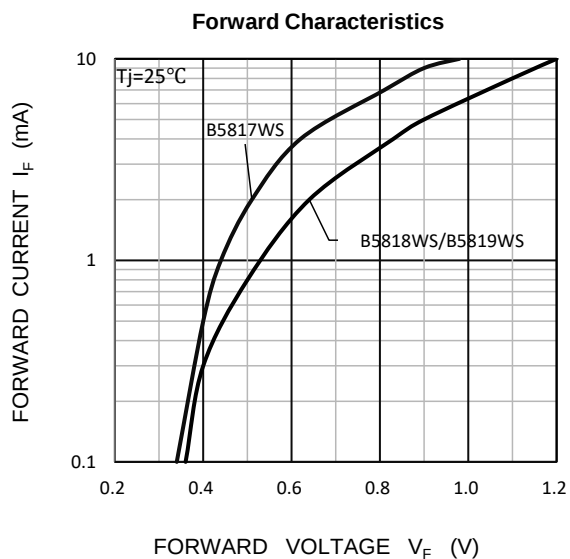
Halogen-Free

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

Symbol	Parameter	B5819WS	B5818WS	B5817WS	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	250			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	400			$^\circ\text{C/W}$
T_J	Junction Temperature	$-40\sim+125$			$^\circ\text{C}$
T_{stg}	Storage Temperature	$-55\sim+150$			$^\circ\text{C}$

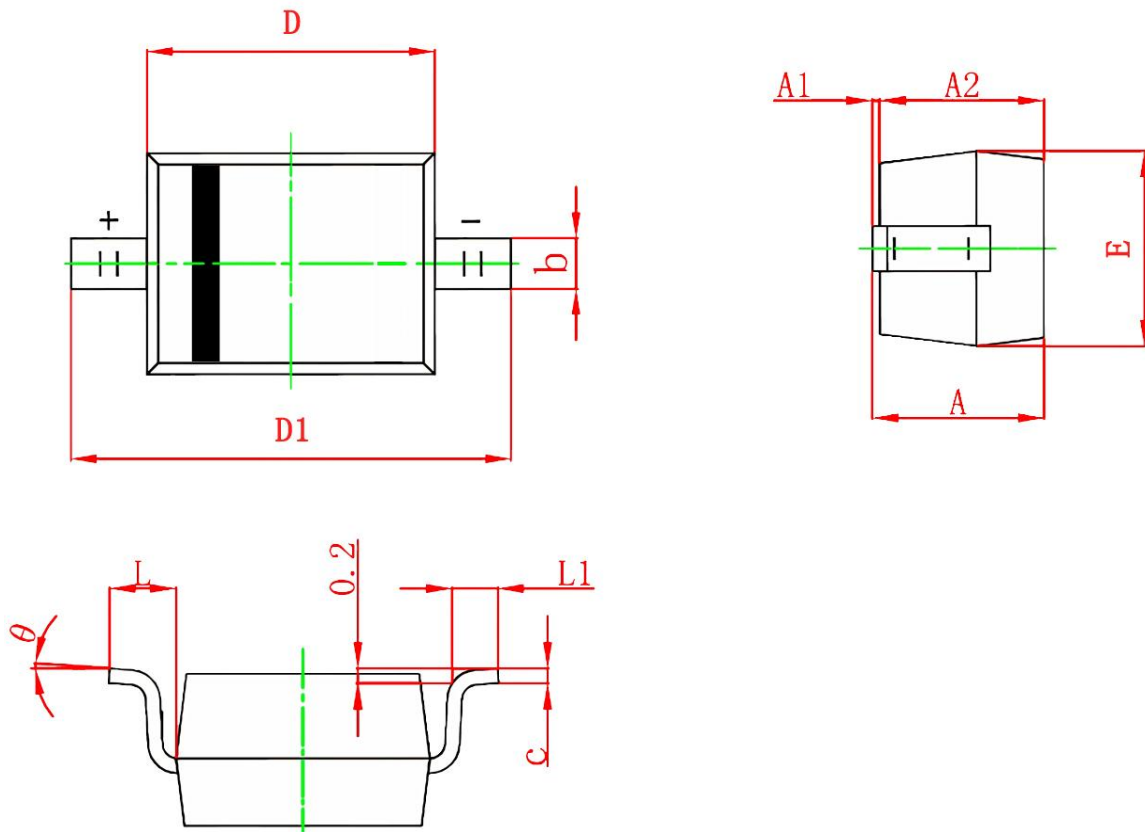
Electrical Characteristics ($T_J=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	B5819WS B5818WS B5817WS $I_R=1\text{mA}$	40 30 20			V
V_F	Forward voltage	B5819WS $I_F=1\text{A}$ $I_F=3\text{A}$ B5818WS $I_F=1\text{A}$ $I_F=3\text{A}$ B5817WS $I_F=1\text{A}$ $I_F=3\text{A}$			0.6 0.9 0.55 0.875 0.45 0.75	V
I_R	Reverse current	B5819WS B5818WS B5817WS $V_R=40\text{V}$ $V_R=30\text{V}$ $V_R=20\text{V}$			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
B5819WS	SOD-323	SL	3000	45000	180000	7"reel
B5818WS		SK				
B5817WS		SJ				

SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		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	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°