

SuperDiode – 250mW SOD-323 Plastic-Encapsulate Schottky Barrier Diode

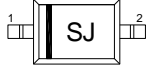
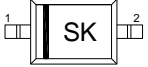
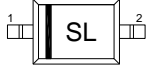
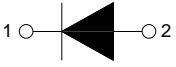
1. Features

- High current capability
- Power dissipation of 250mW
- Low forward voltage drop

2. Mechanical Data

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Epoxy:94V-0

3. Marking and Circuit

B5817WS	B5818WS	B5819WS	Circuit
			

4. Specification

Absolute Maximum Rating & Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

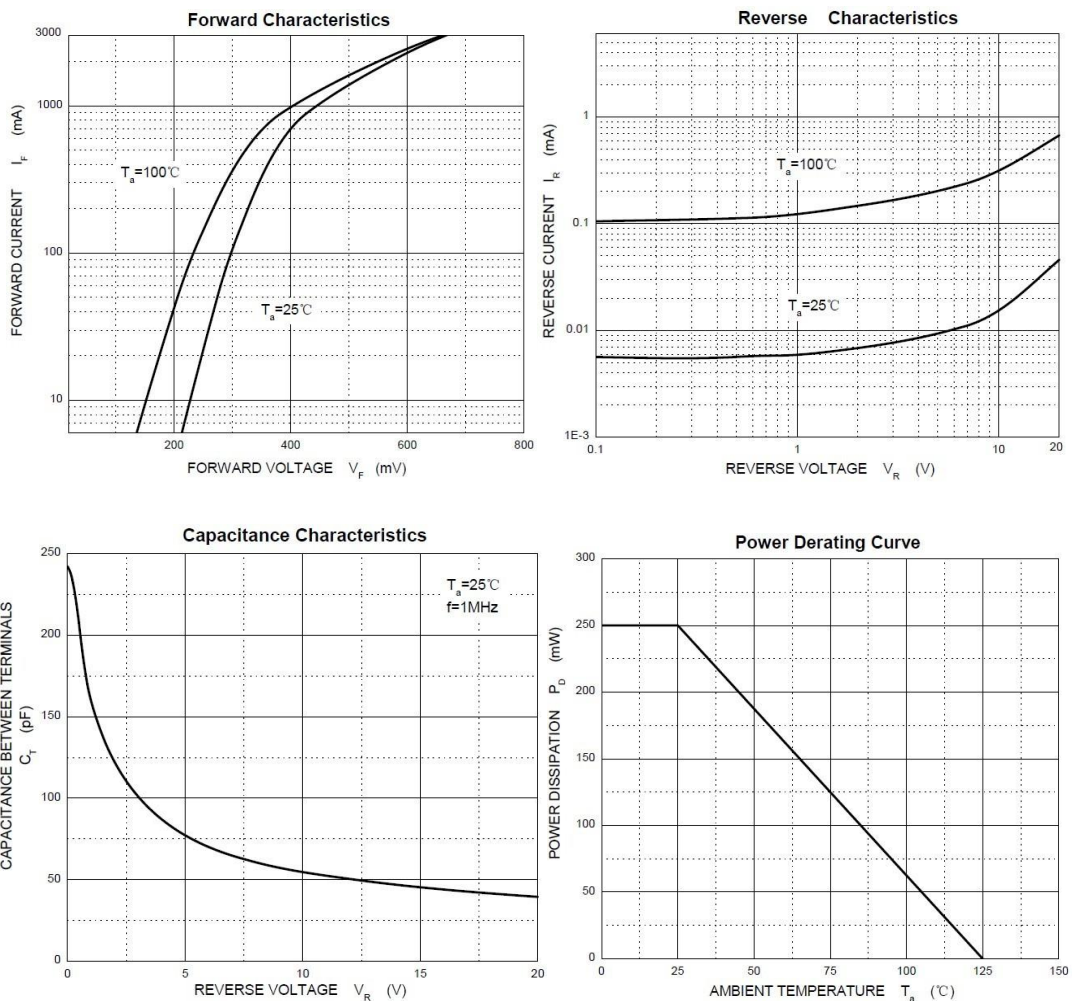
Parameters	Symbol	Value			Unit
		B5817WS	B5818WS	B5819WS	
Peak repetitive reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Power dissipation	P_D	250			mW
Operating junction temperature	T_J	125			°C
Storage temperature range	T_S	-50~150			°C
Thermal resistance from junction to ambient	$R_{\theta JA}$	400			°C/W
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	9			A
Maximum average forward rectified current	I_{FM}	1.0			A

Valid provided that electrodes are kept at ambient temperature

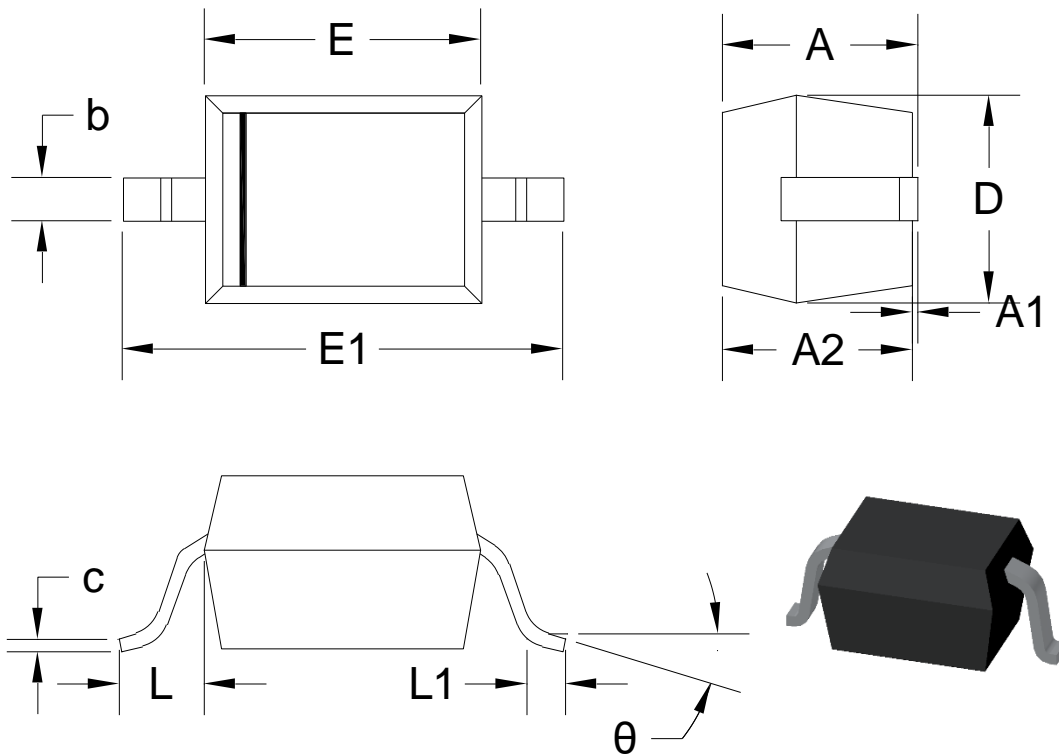
Electrical Characteristics (At TA = 25°C unless otherwise specified)

Parameters	Symbol	Test conditions	B5817WS	B5818WS	B5819WS	Unit
Maximum forward voltage	V_F	$I_F = 1.0A$	0.450	0.550	0.600	V
		$I_F = 3.0A$	0.750	0.875	0.900	
Maximum reverse breakdown voltage	V_R	$I_R=1mA$	20	30	40	V
Maximum reverse current	I_R	$V_R=20V$	1.0			mA
		$V_R =30V$				
		$V_R =40V$				
Junction Capacitance	C_j	$V_R = 4V, f = 1MHz$	120			pF

5. Typical Characteristic

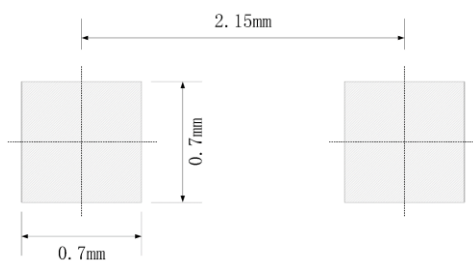


6. Dimension and Patterns (SOD-323)



Units: mm

Symbol	Min.	Max.	Symbol	Min.	Max.
A		1.000	E	1.600	1.800
A1	0.000	0.100	E1	2.550	2.750
A2	0.800	0.900	L	0.475REF	
b	0.250	0.350	L1	0.250	0.400
c	0.080	0.150	θ	0°	8°
D	1.200	1.400			



Note:

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

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