

SOD123 Plastic-Encapsulate Diodes

Schottky Rectifier

Features

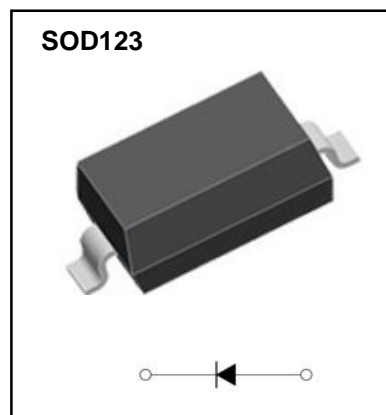
- V_R 20V-40V
- I_O 1A

Applications

- Low Voltage Rectification
- Low Power Consumption Applications
- High Efficiency DC/DC Conversion

Marking

- B5817W:SJ
- B5818W:SK
- B5819W:SL



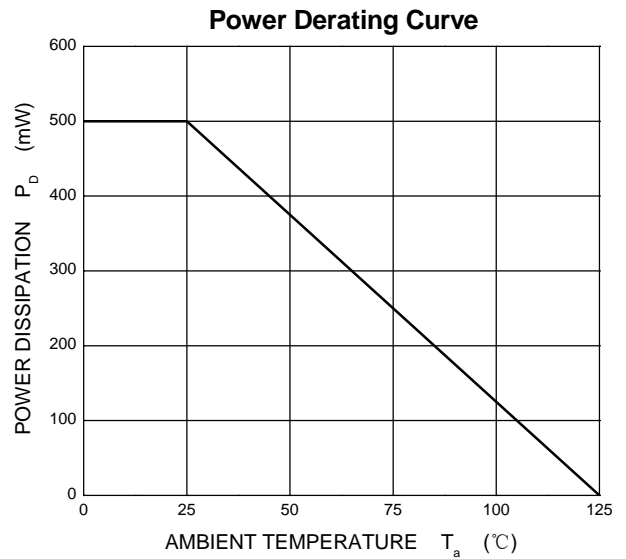
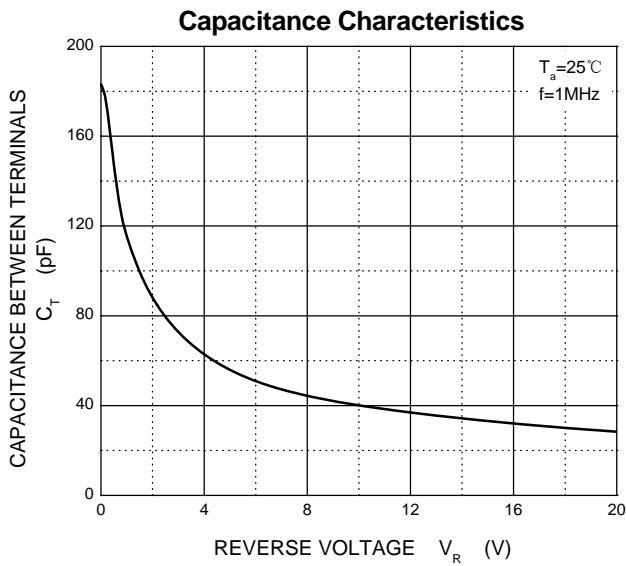
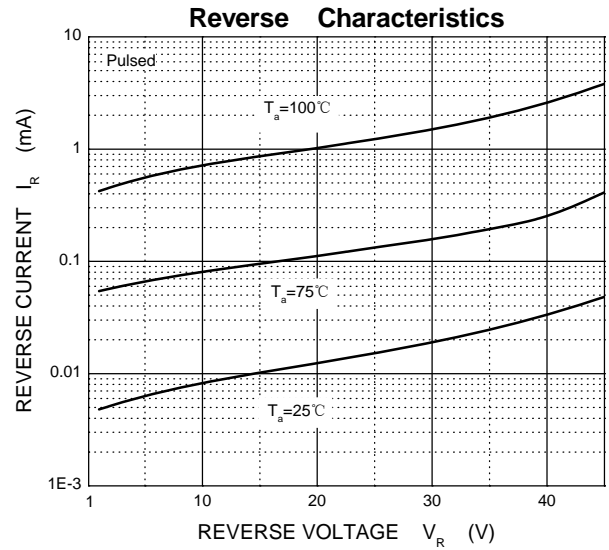
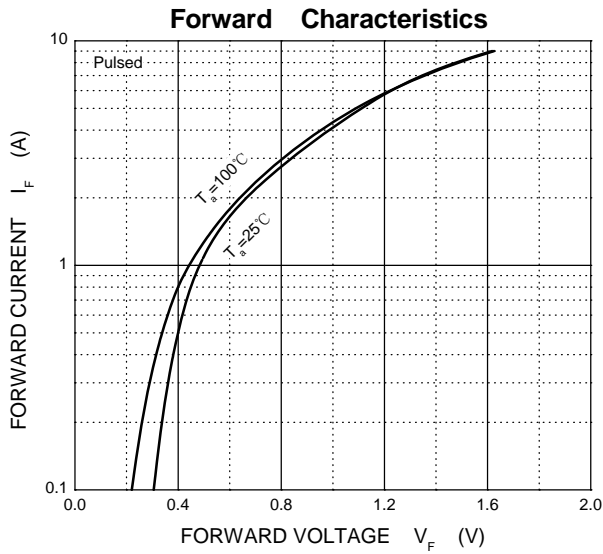
Limiting Values (Absolute Maximum Rating)

Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	20	30	40	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
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			$^{\circ}C/W$
Junction temperature	T_J	125			$^{\circ}C$
Storage Temperature	T_{STG}	-55~+150			$^{\circ}C$

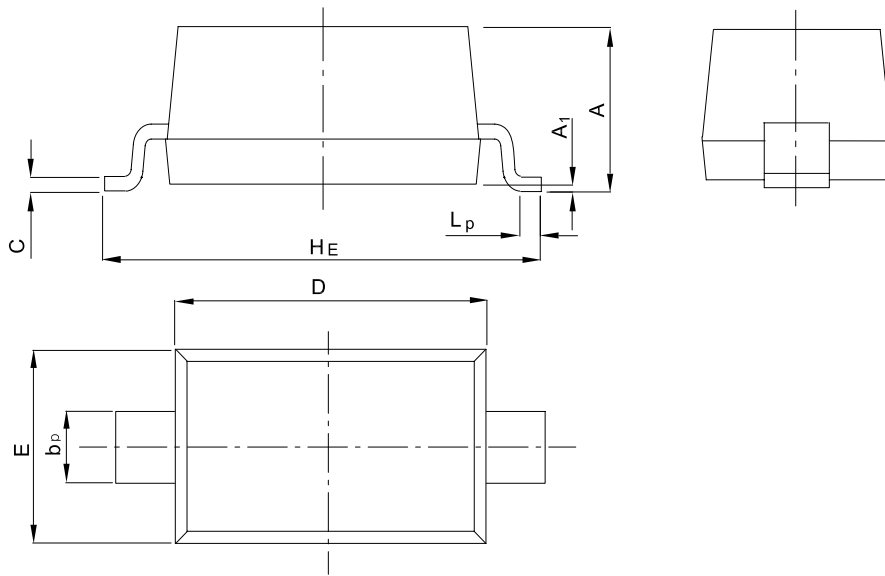
Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

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

Typical Characteristics

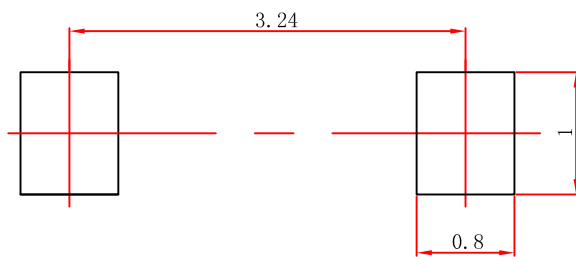


SOD-123 Package Outline Dimensions



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20

SOD-123 Suggested Pad Layout



Note:

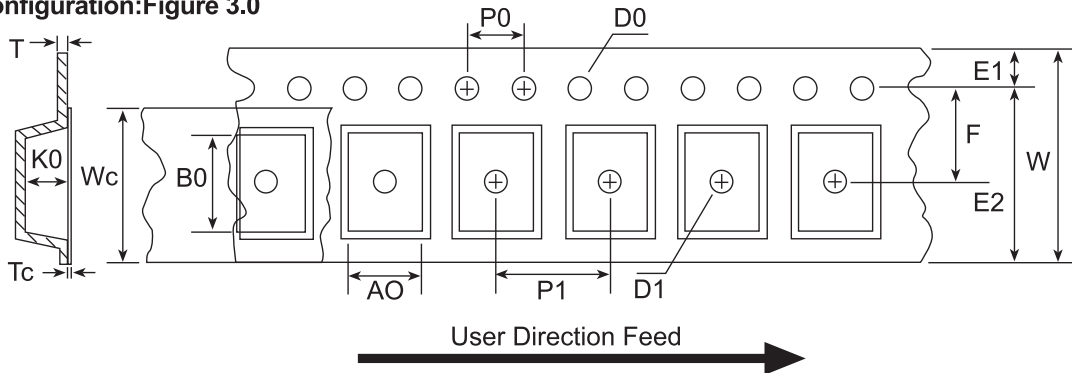
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

JSKD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSKD does not assume any liability arising out of the application or use of any product described herein.

Reel Taping Specifications For Surface Mount Devices-SOD123

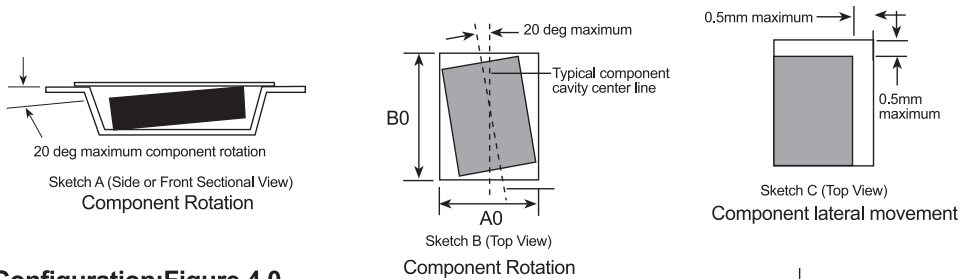
SOD123 Embossed Carrier Tape Configuration: Figure 3.0



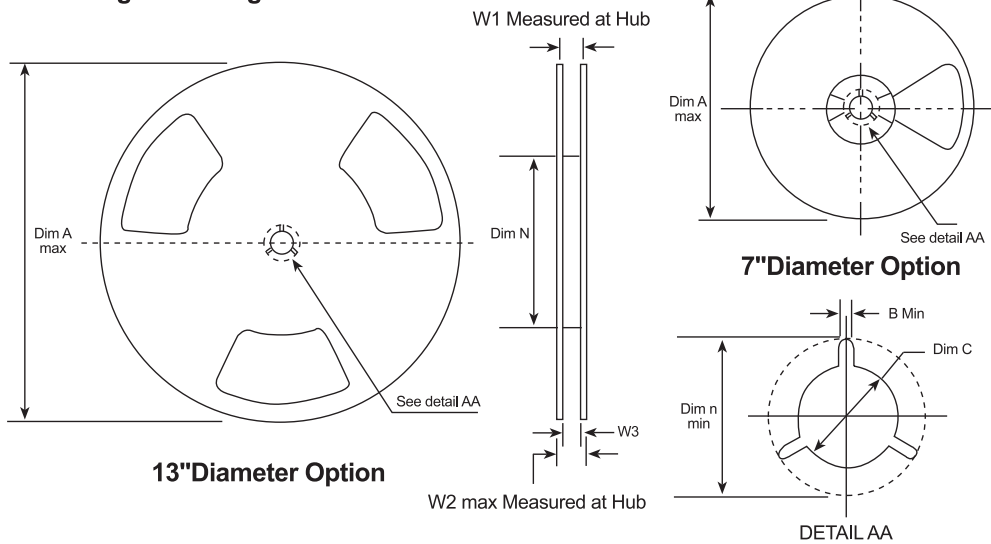
Dimensions are millimeter

Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
SOD123 (8mm)	1.85 +/-0.10	3.94 +/-0.10	8.0 +/-0.3	1.50 +/-0.125	1.125 +/-0.125	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.10	4.0 +/-0.10	1.50 +/-0.10	0.20 +/-0.020	5.2 +/-0.20	0.06 +/-0.02

Notes: A0, B0 and K0 dimensions are determined with respect to the EW Jedec RS-481 rotational and lateral movement requirements (see sketches A, B and C).



SOD123 Reel Configuration: Figure 4.0



Dimensions are in inches and millimeter

Type Size	Reel Option	Dim A	Dim B	Dim C	Dim D	Dim N	Dim W1	Dim W2	Dim W3 (LSL-USL)
8mm	7" Dia	7.00 177.8	0.059 1.5	512+0.020/-0.008 13+0.5/-0.2	0.795 20.0	2.165 55	0.331+0.059/-0.000 8.4+1.5/0	0.567 14.4	0.311-0.429 7.9-10.9
8mm	13" Dia	13.00 330	0.059 1.5	512+0.020/-0.008 13+0.5/-0.2	0.795 20.0	4.00 100	0.331+0.059/-0.000 8.4+1.5/0	0.567 14.4	0.311-0.429 7.9-10.9