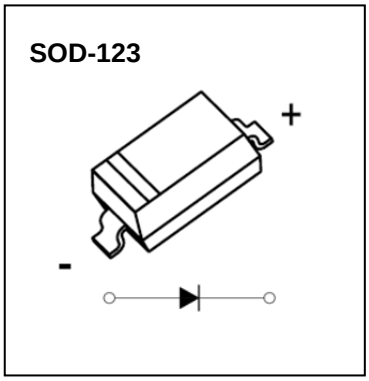
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

SOD-123 Plastic-Encapsulate Diodes

B5817W-5819W SCHOTTKY BARRIER DIODE



FEATURES

For use in low voltage, high frequency inverters

Free wheeling, and polarity protection applications.

MARKING:

B5817W:SJ	B5818W:SK	B5819W:SL
		

The marking bar indicates the cathode

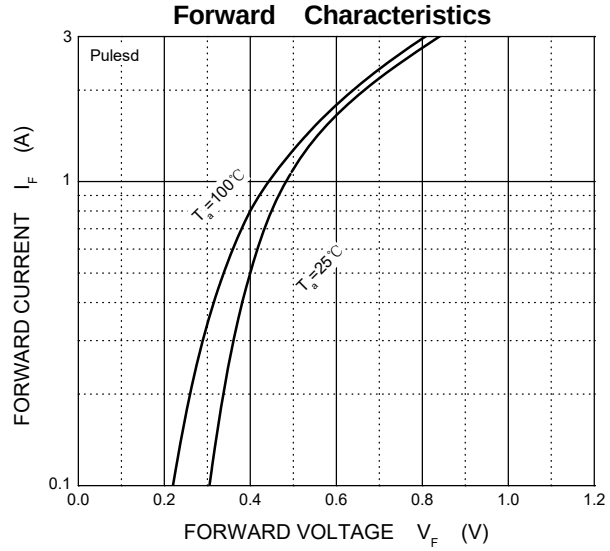
Solid dot = Green molding compound device

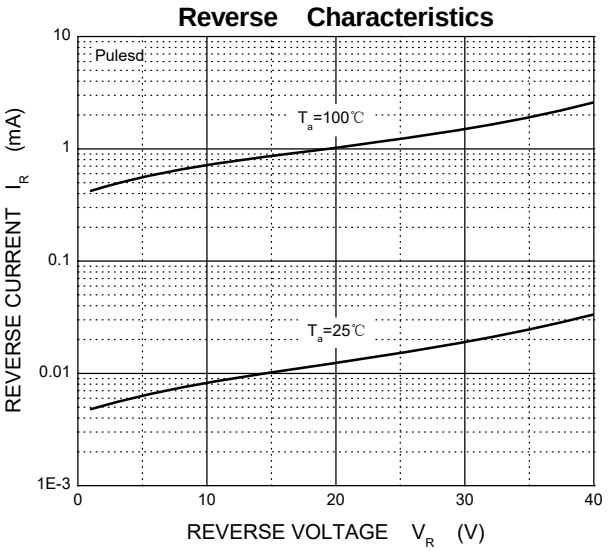
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

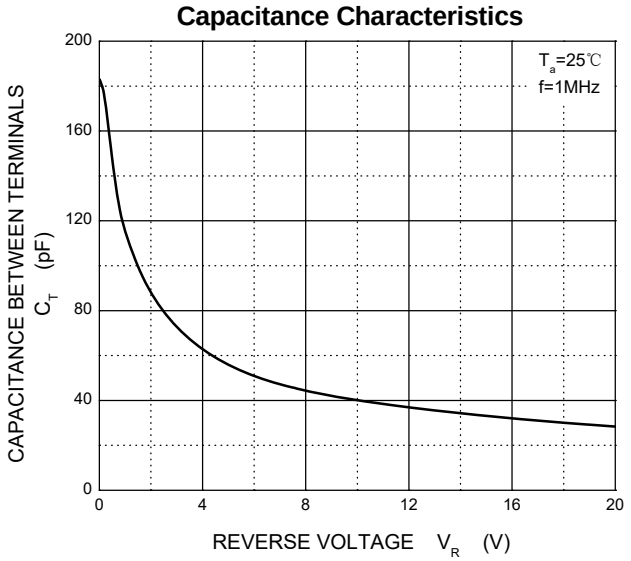
Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	20	30	40	V
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_O	1			A
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			℃/W
OperationJunction temperature Range	T_J	-40~+125			℃
Storage Temperature Range	T_{STG}	-55~+150			℃

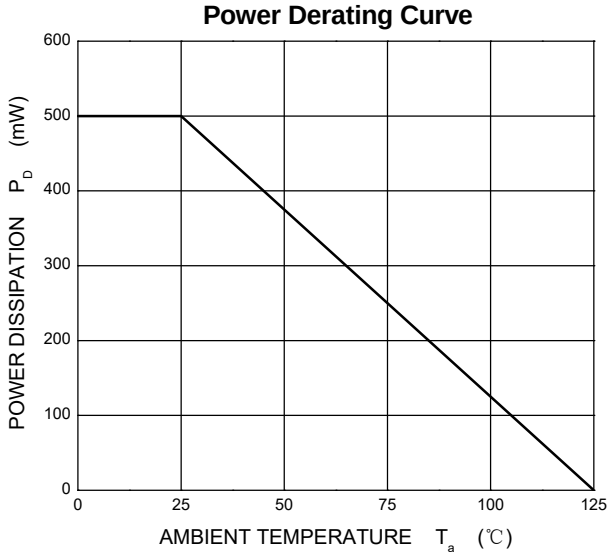
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

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 I_F=3A		0.45 0.75	V
		B5818W	I_F=1A I_F=3A		0.55 0.875	V
		B5819W	I_F=1A I_F=3A		0.6 0.9	V
Diode capacitance	C_D	V_R=4V, f=1MHz			120	pF

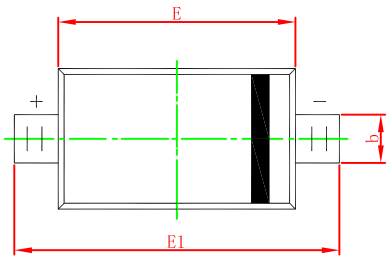

Forward Characteristics
Pulesd
T_a=100℃
T_a=25℃
FORWARD CURRENT I_F (A)
FORWARD VOLTAGE V_F (V)
3
1
0.1
0.0
0.2
0.4
0.6
0.8
1.0
1.2

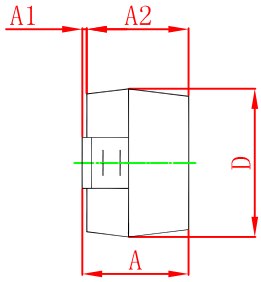

Reverse Characteristics
Pulesd
T_a=100℃
T_a=25℃
REVERSE CURRENT I_R (mA)
REVERSE VOLTAGE V_R (V)
10
1
0.1
0.01
1E-3
0
10
20
30
40

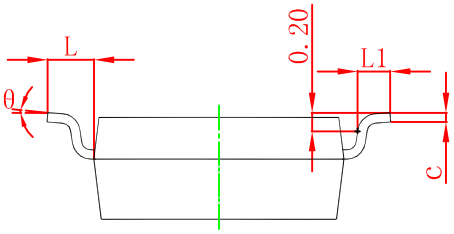

Capacitance Characteristics
T_a=25℃
f=1MHz
CAPACITANCE BETWEEN TERMINALS C_T (pF)
REVERSE VOLTAGE V_R (V)
200
160
120
80
40
0
0
4
8
12
16
20


Power Derating Curve
POWER DISSIPATION P_D (mW)
AMBIENT TEMPERATURE T_a (℃)
600
500
400
300
200
100
0
0
25
50
75
100
125

SOD-123 Package Outline Dimensions

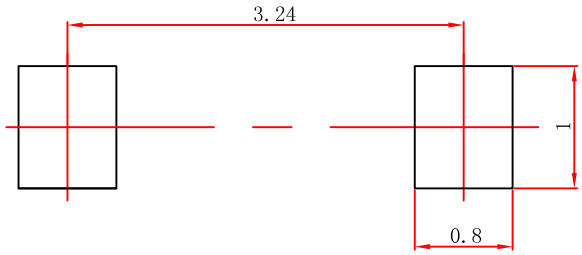






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

SOD-123 Suggested Pad Layout



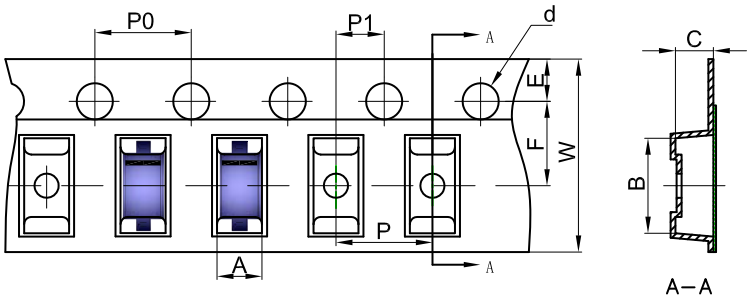
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

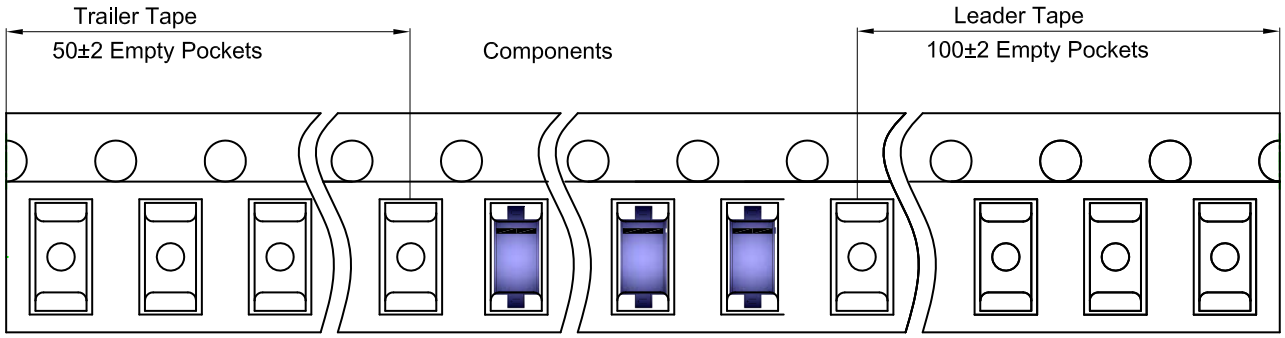


Packaging Description:

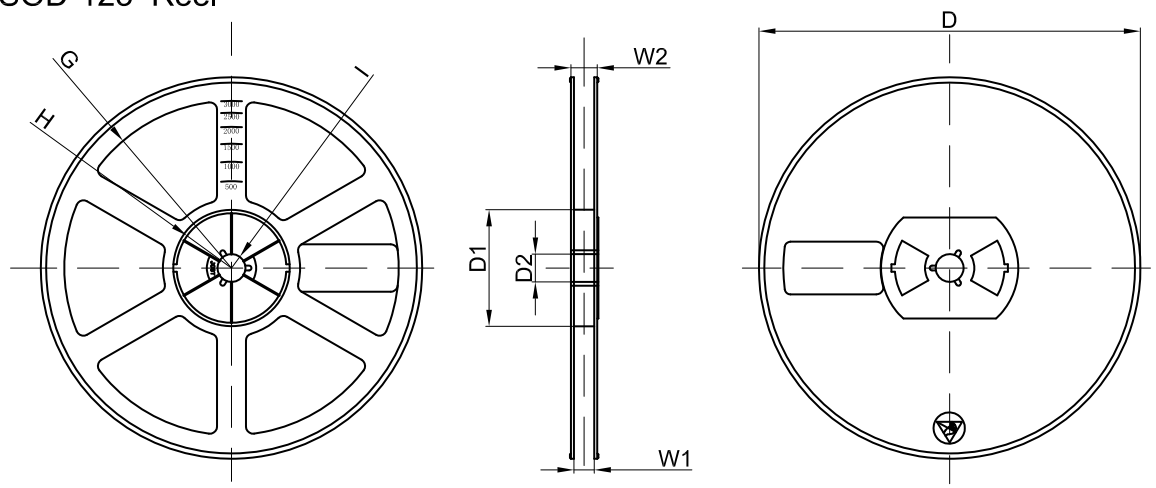
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	