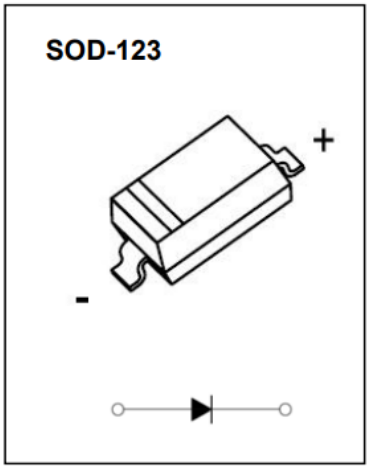
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

AD-SD103AW/BW/CW Plastic-Encapsulated Diode

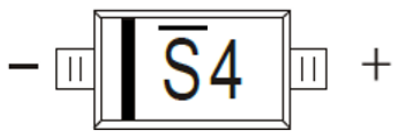
AD-SD103AW/BW/CW Schottky barrier diode



FEATURES

- Guard ring construction for transient protection
- Low voltage
- Negligible reverse recovery time
- Low capacitance
- AEC-Q101 qualified

MARKING

AD-SD103AW: S̄4	AD-SD103BW: S̄5	AD-SD103CW: S̄6
		

The marking bar indicates the cathode

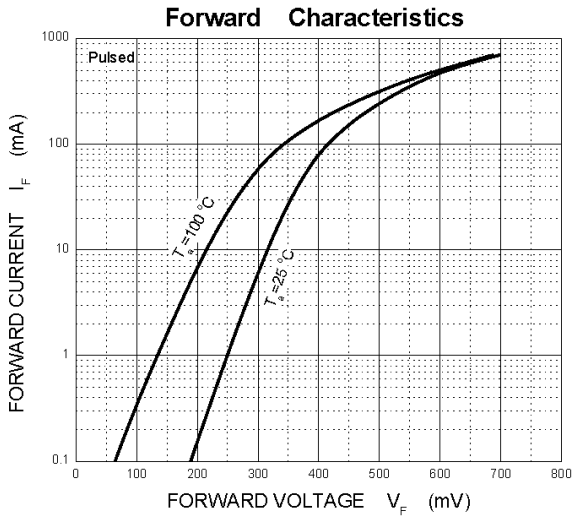
MAXIMUM RATINGS (T_j = 25°C unless otherwise specified)

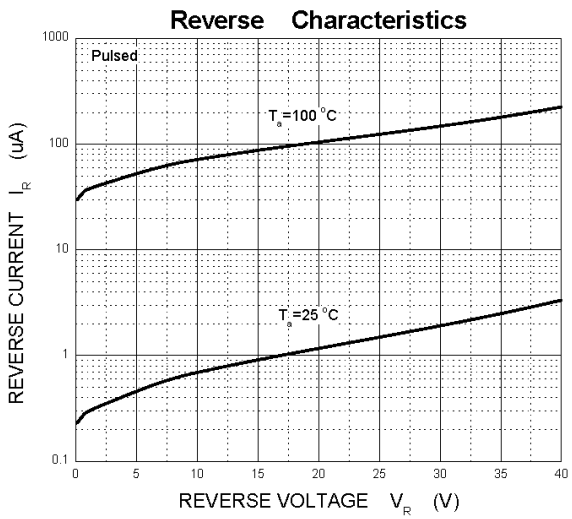
Parameter	Symbol	Value			Unit
		AD-SD103AW	AD-SD103BW	AD-SD103CW	
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
Working Peak Reverse Voltage	V_{RWM}	40	30	20	V
RMS reverse voltage	$V_{R(RMS)}$	28	21	14	V
Forward continuous current	I_{FM}	350			mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	2			A
Power dissipation	P_D	400			mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	250			°C/W
Operating junction temperature range	T_j	-40 ~ 125			°C
Storage temperature range	T_{stg}	-55 ~ 150			°C

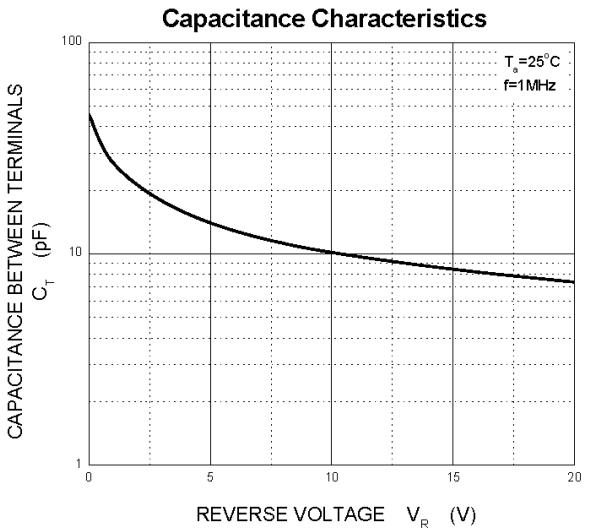
ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

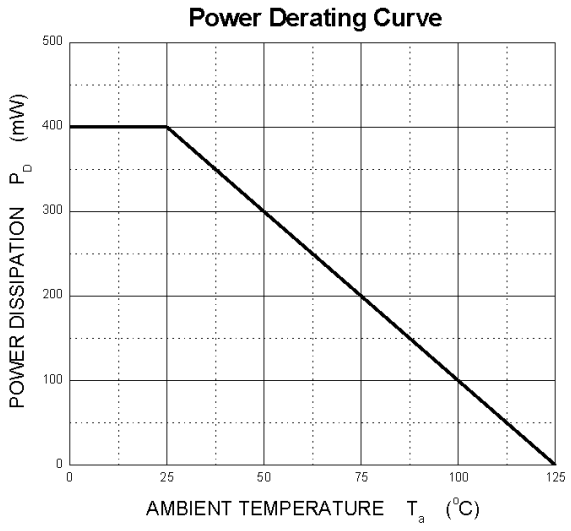
Parameter	Symbol	Test condition		Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R = 100μA	AD-SD103AW	40	-	-	V
			AD-SD103BW	30	-	-	
			AD-SD103CW	20	-	-	
Forward voltage	V_F	I_F = 20mA		-	-	0.37	
		I_F = 200mA		-	-	0.6	
Reverse current	I_R	V_R = 30V	AD-SD103AW	-	-	5	μA
		V_R = 20V	AD-SD103BW	-	-		
		V_R = 10V	AD-SD103CW	-	-		
Reverse recovery time	T_{rr}	$I_F = I_R$ = 200mA, I_{rr} = 0.1×I_R, R_L = 100Ω		-	10	-	ns
Capacitance between terminals	C_T	V_R = 0V, f = 1MHz		-	50	-	pF

TYPICAL CHARACTERISTICS

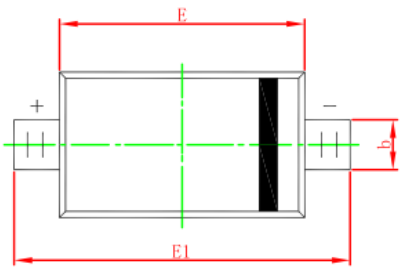


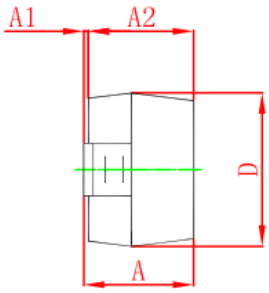


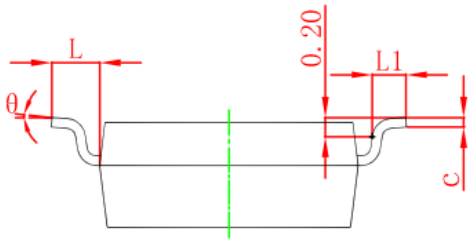




SOD-123 PACKAGE OUTLINE DIMENSIONS

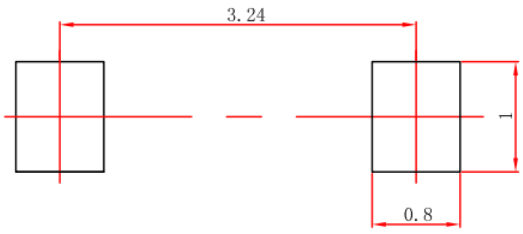






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020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

SOD-123 SUGGESTED PAD LAYOUT

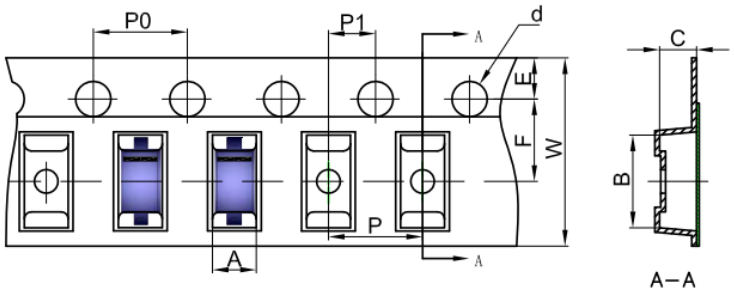


Note:

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

SOD-123 TAPE AND REEL

SOD-123 Embossed Carrier Tape

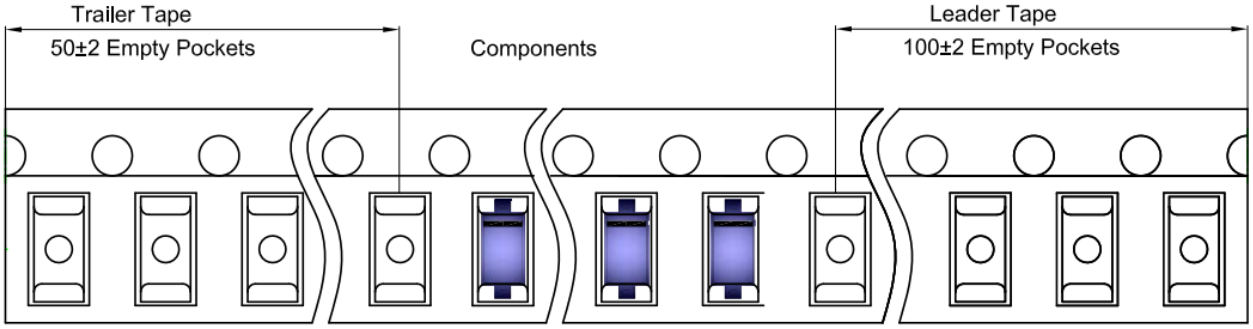


Packaging Description:

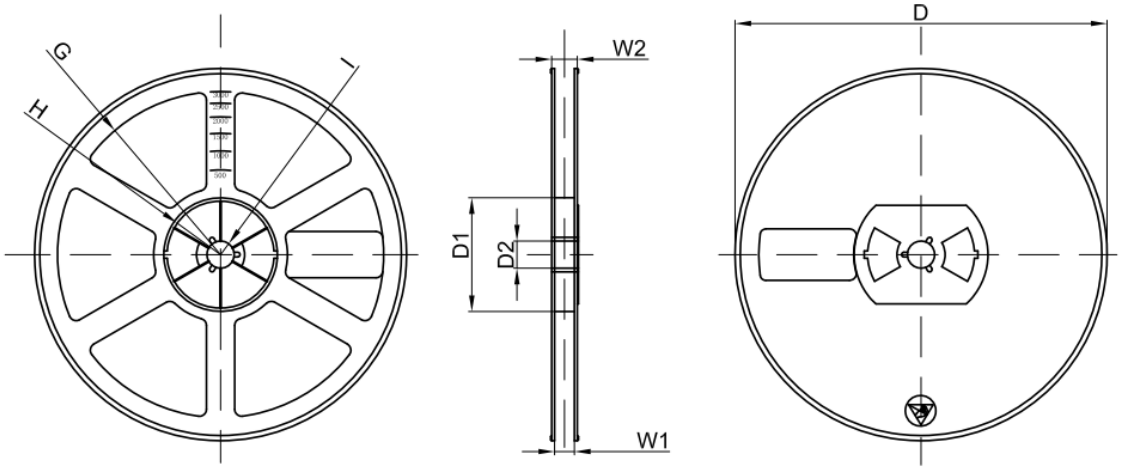
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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	

PUBLISHED BY

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