



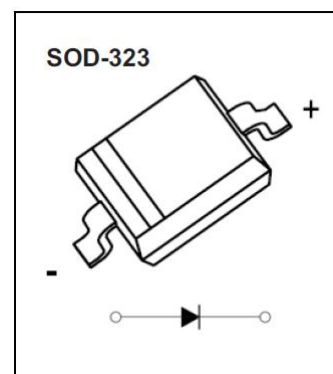
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

AD-SD103AWS/BWS/CWS Plastic-Encapsulated Diode

AD-SD103AWS/BWS/CWS Schottky barrier diode

FEATURES

- Low reverse capacitance
- Low forward voltage drop
- Guard ring construction for transient protection
- AEC-Q101 qualified



MARKING

AD-SD103AWS	AD-SD103BWS	AD-SD103CWS

\bar{S}^* = Device code

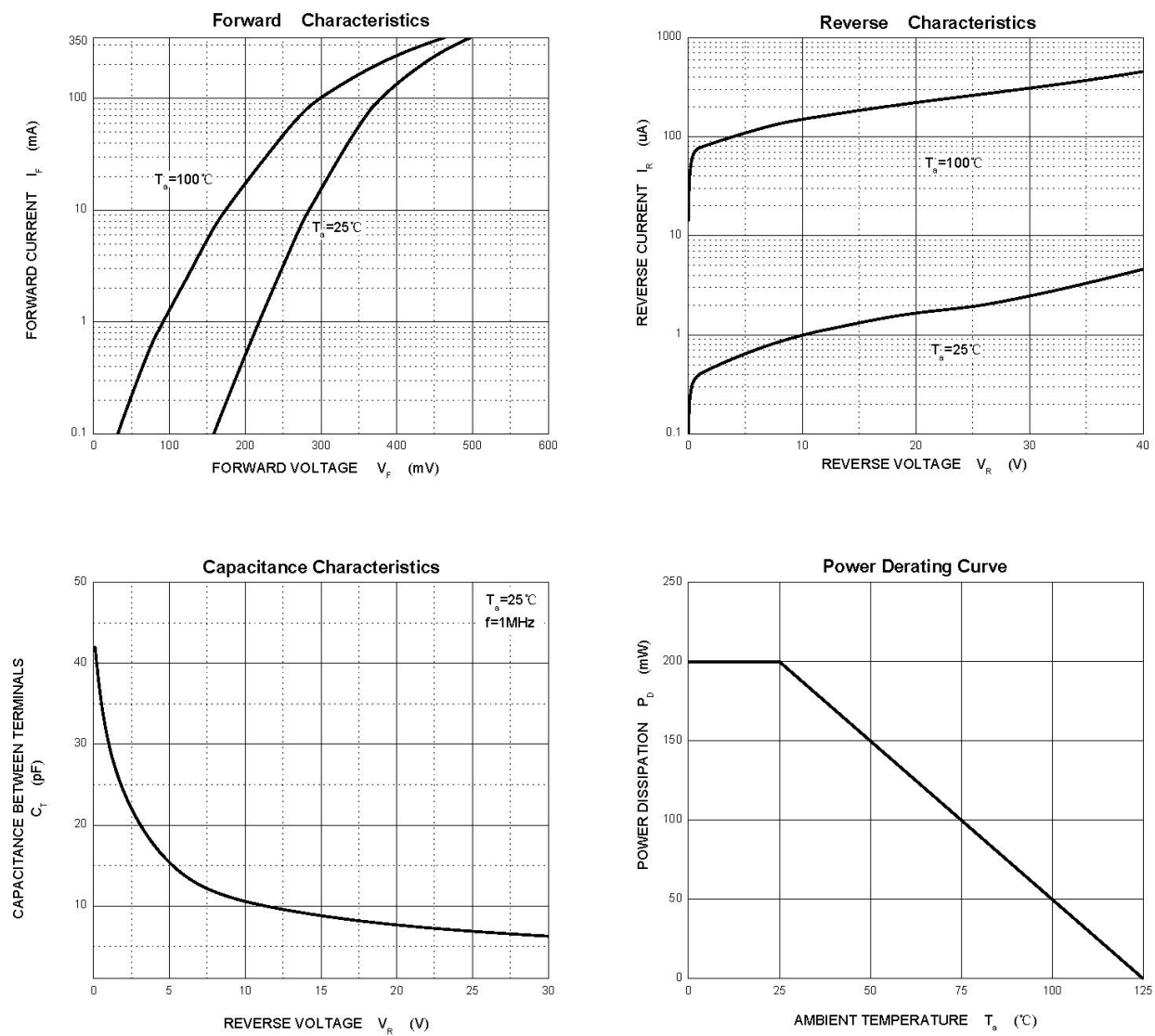
The marking bar indicates the cathode

MAXIMUM RATINGS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

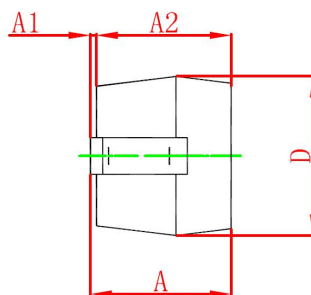
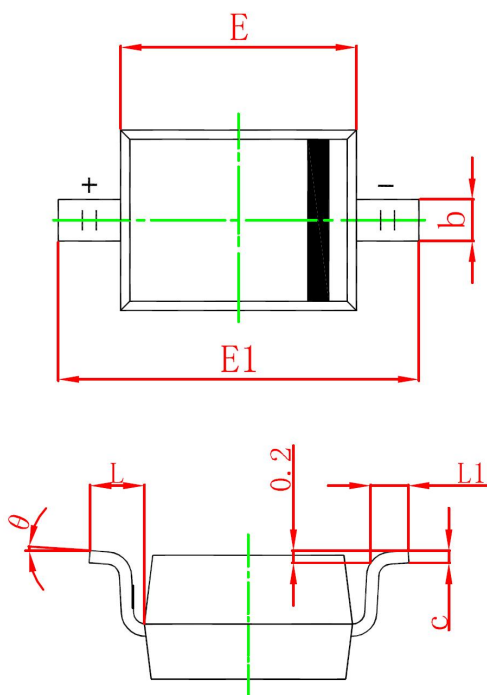
Parameter	Symbol	Value			Unit
		AD-SD103A WS	AD-SD103B WS	AD-SD103C WS	
Peak repetitive reverse voltage	V_{RRM}	40	30	20	V
Working peak reverse voltage	V_{RWM}	40	30	20	V
DC block voltage	V_R	40	30	20	V
RMS reverse voltage	$V_{R(RMS)}$	28	21	14	V
Continuous forward current	I_{FM}	350			mA
Non-repetitive peak forward surge current @ $t = 8.3\text{ms}$	I_{FSM}	2.0			A
Power dissipation	P_D	200			mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500			$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_j	$-40 \sim 125$			$^\circ\text{C}$
Storage temperature range	T_{stg}	$-55 \sim 150$			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Parameter		Symbol	Test condition	Min	Typ	Max	Unit
Reverse breakdown voltage	AD-SD103AWS	$V_{(BR)}$	$I_R = 100\mu\text{A}$	40	-	-	V
	AD-SD103BWS			30	-	-	
	AD-SD103CWS			20	-	-	
Reverse voltage leakage current	AD-SD103AWS	I_R	$V_R = 30\text{V}$	-	-	5.0	μA
	AD-SD103BWS		$V_R = 20\text{V}$				
	AD-SD103CWS		$V_R = 10\text{V}$				
Forward voltage		V_{F1}	$I_F = 20\text{mA}$	-	-	0.37	V
		V_{F2}	$I_F = 200\text{mA}$	-	-	0.60	
Reverse recovery time		t_{rr}	$I_F = I_R = 200\text{mA}$, $I_{rr} = 20\text{mA}$, $R_L = 100\Omega$	-	10	-	ns
Capacitance between terminals		C_T	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	-	50	pF

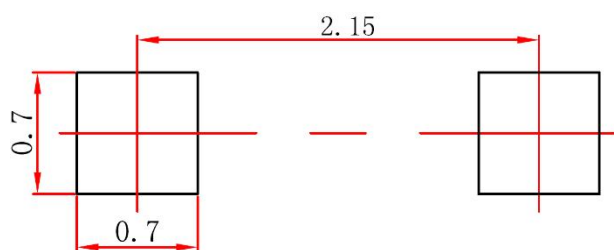


SOD-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		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	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 SUGGESTED PAD LAYOUT

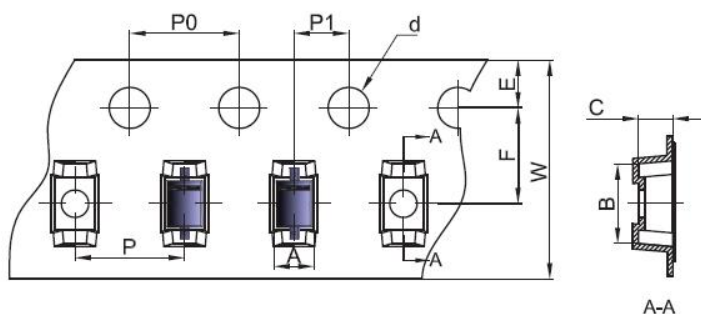


Note:

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

SOD-323 TAPE AND REEL

SOD-323 Embossed Carrier Tape



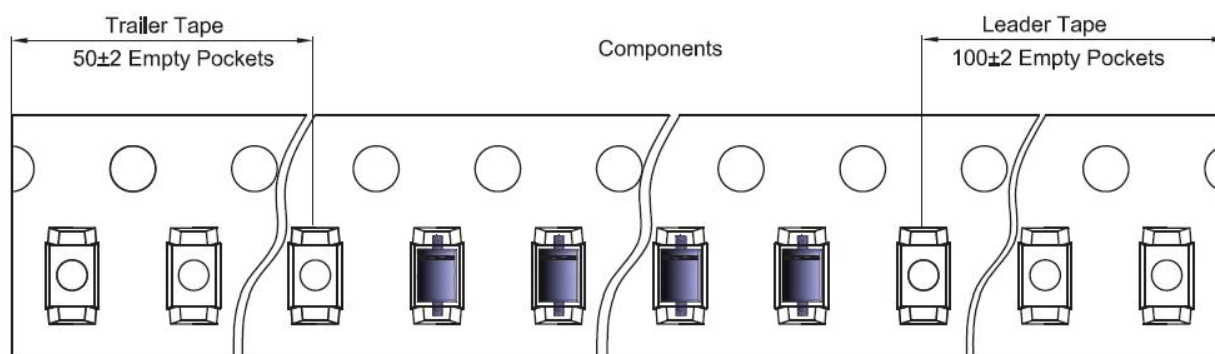
Packaging Description:

SOD-323 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).

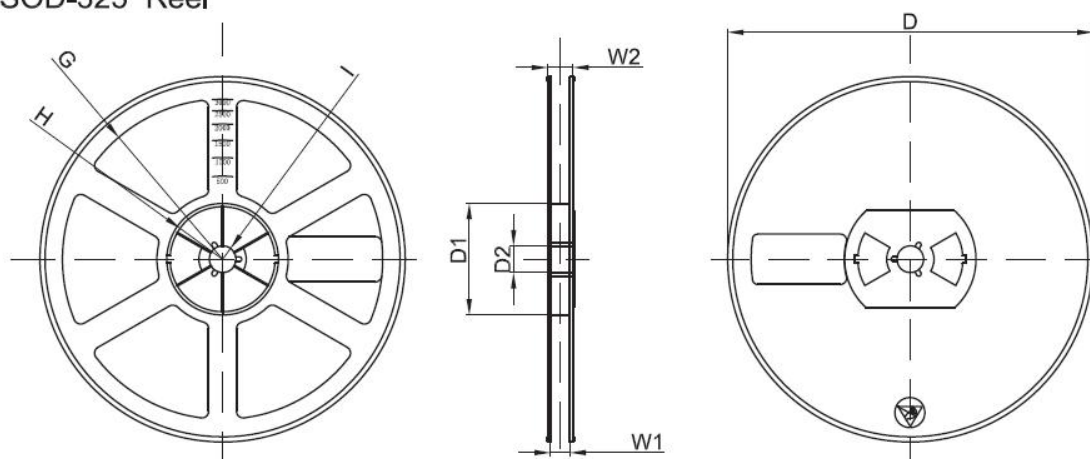
Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOD-323 Tape Leader and Trailer



SOD-323 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	

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