



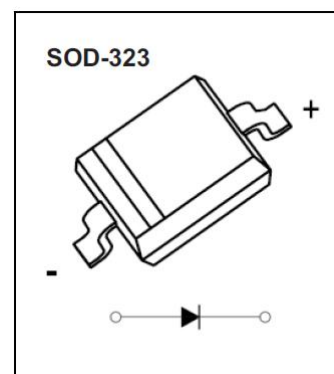
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

## AD-BAV19WS/20WS/21WS Plastic-Encapsulated Diode

**AD-BAV19WS/20WS/21WS Switching diode**

### FEATURES

- Low reverse current
- Surface mount package ideally suited for automatic insertion
- Fast switching speed
- For general purpose switching applications
- AEC-Q101 qualified



### MARKING

AD-BAV19WS	AD-BAV20WS	AD-BAV21WS
$\bar{A}8$	$\bar{T}2$	$\bar{T}3$

The marking bar indicates the cathode.

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

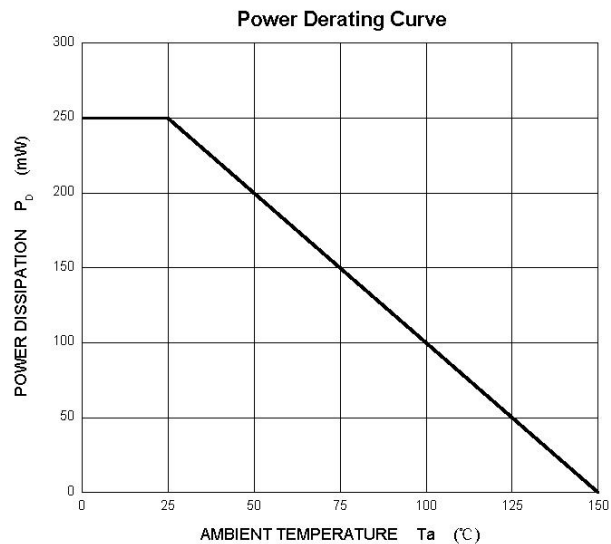
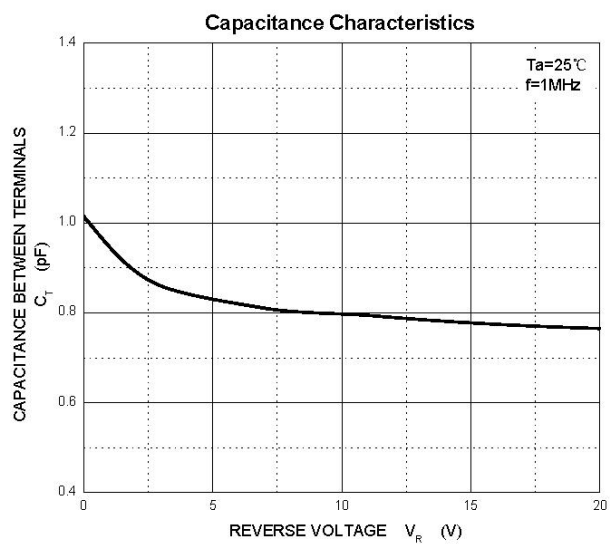
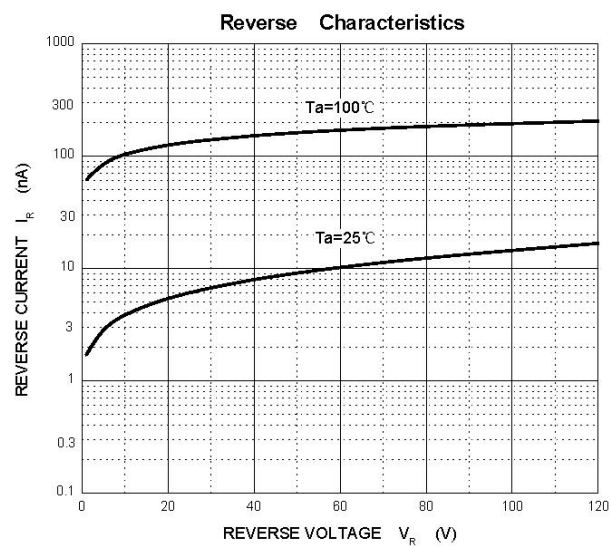
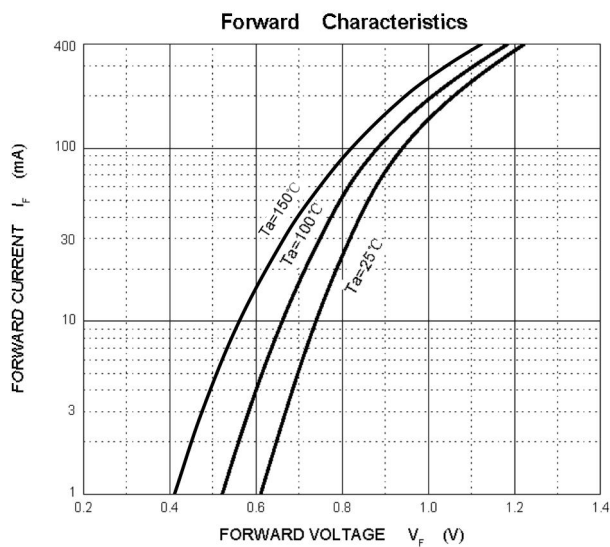
Parameter	Symbol	Value			Unit
		BAV19WS	BAV20WS	BAV21WS	
Non-repetitive peak reverse voltage	$V_{RM}$	120	200	250	V
Peak repetitive reverse voltage	$V_{RRM}$	100	150	200	V
Working peak reverse voltage	$V_{RWM}$				V
RMS reverse voltage	$V_{R(RMS)}$	71	106	141	V
Average rectified output current	$I_O$	200			mA
Non-repetitive peak forward surge current @ $t = 8.3\text{ms}$	$I_{FSM}$	2.0			A
Repetitive peak forward surge current	$I_{FRM}$	625			mA
Power dissipation	$P_D$ <sup>1)</sup>	250			mW
Thermal resistance from junction to ambient	$R_{\theta JA}$ <sup>1)</sup>	500			$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_j, T_{stg}$	-55 ~ 150			$^\circ\text{C}$

1) Minimum FR4 pad

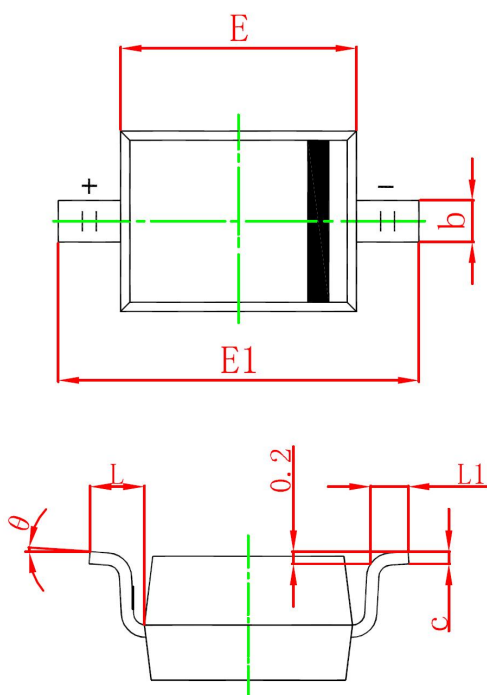
**ELECTRICAL CHARACTERISTICS ( $T_j = 25^\circ\text{C}$  unless otherwise specified)**

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 100\text{mA}$	-	-	1	V
		$I_F = 200\text{mA}$	-	-	1.25	
Reverse current	$I_R$	$V_R = 100\text{V}$ BAV19WS	-	-	0.1	$\mu\text{A}$
		$V_R = 150\text{V}$ BAV20WS	-	-	0.1	
		$V_R = 200\text{V}$ BAV21WS			0.1	
Total capacitance	$C_{tot}$	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	5	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 30\text{mA}, I_{rr} = 3\text{mA}, R_L = 100\Omega$	-	-	50	ns

## TYPICAL CHARACTERISTICS

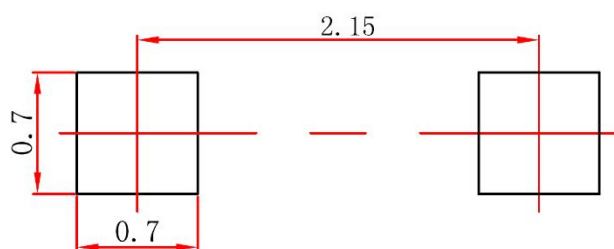


## SOD-323 PACKAGE OUTLINE DIMENSIONS



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

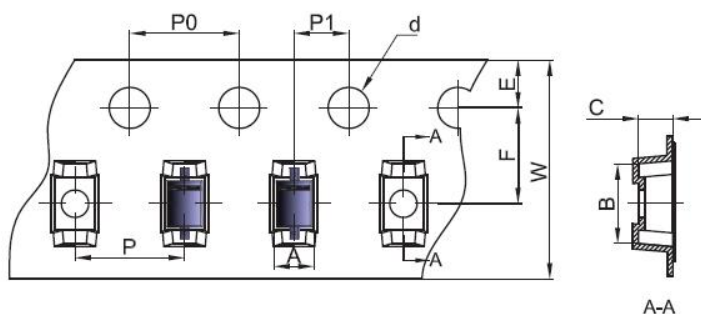


### Note:

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



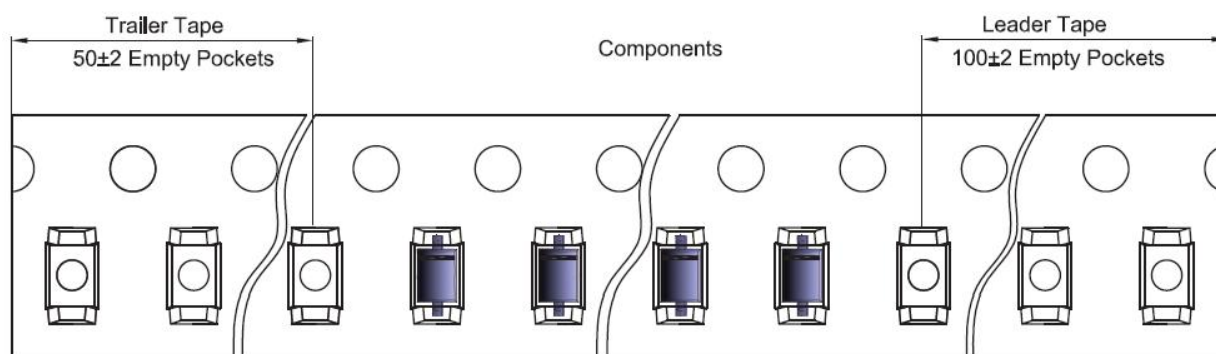
#### Packaging Description:

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).

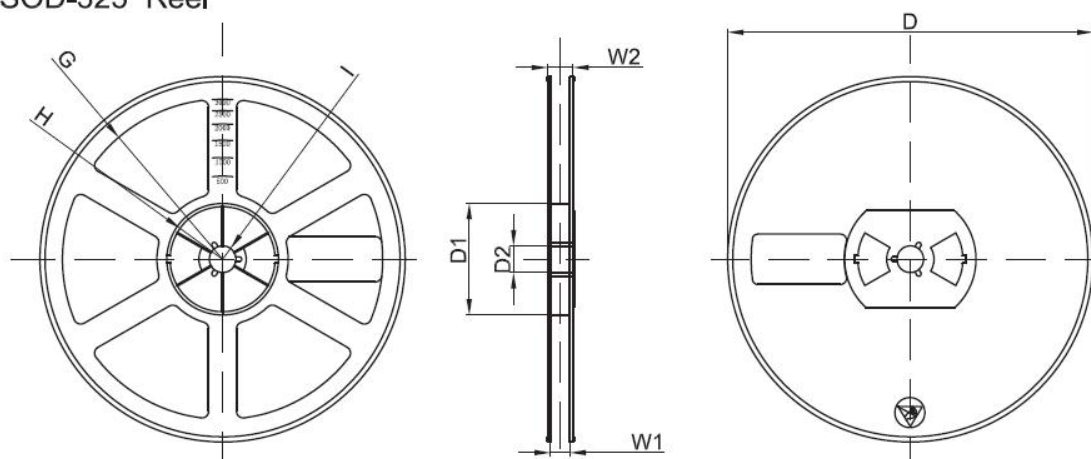
Dimensions are in millimeter

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	

**PUBLISHED BY****JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.****13th Floor, C Block, Tengfei Building, Yan Chuang Yuan, Nanjing Jiangbei New Area, China****LEGAL DISCLAIMER**

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