

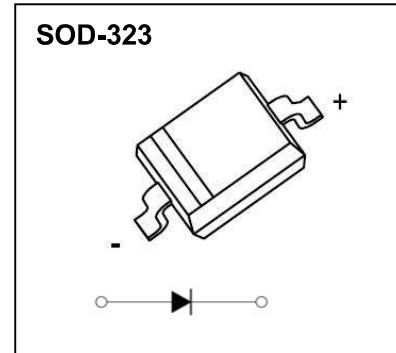


**DONGGUAN NANJING ELECTRONICS LTD.,**  
**SOD-323 Plastic-Encapsulate Diodes**

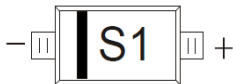
**BAS416** FAST SWITCHING DIODE

**FEATURES**

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insetion



**MARKING**



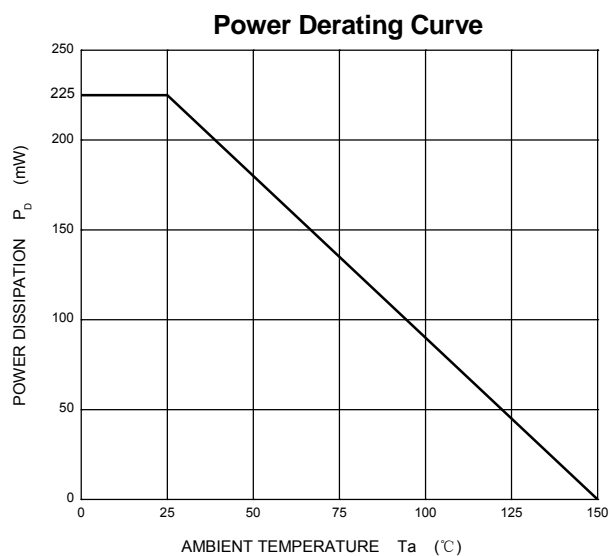
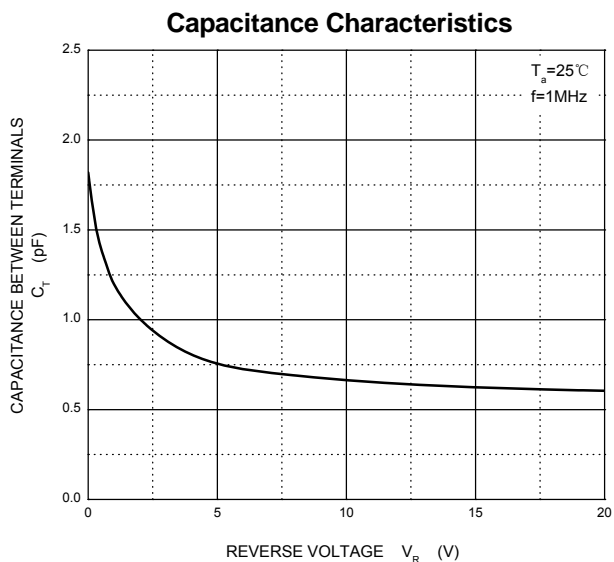
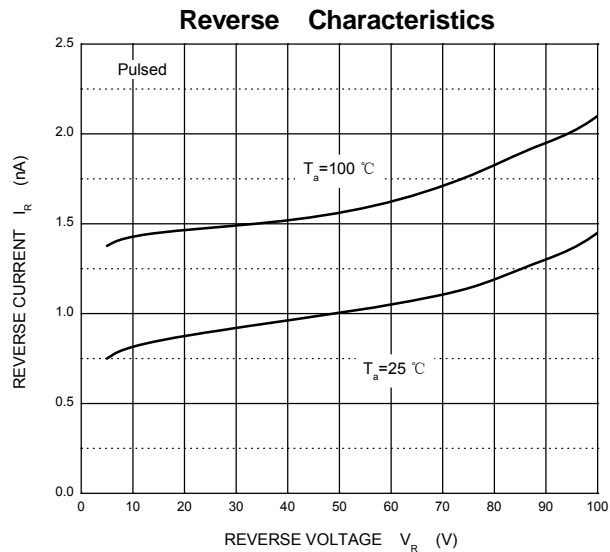
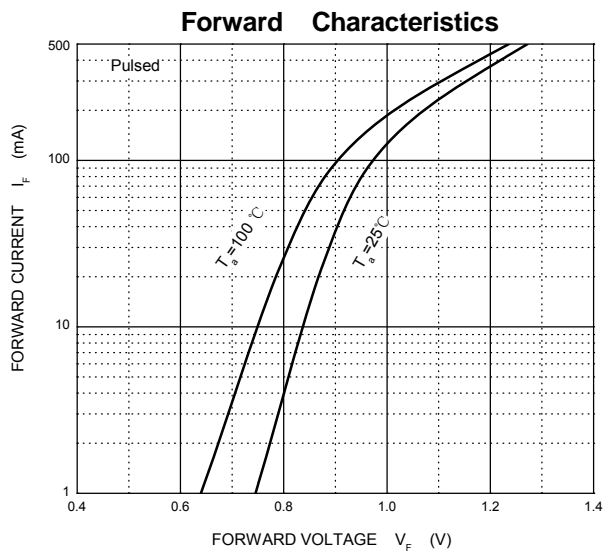
**MAXIMUM RATINGS (  $T_a=25^{\circ}\text{C}$  unless otherwise noted )**

Symbol	Paramete	Value	Unit
$V_{RM}$	Non-Repetitive Peak Reverse Voltage	100	V
$V_{RRM}$	Peak Repetitive Reverse Voltage		
$V_{RWM}$	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	85	V
$I_O$	Average Rectified Output Current	200	mA
$I_{FSM}$	Non-Rpetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	1	A
$P_D$	Power Dissipation	225	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	556	$^{\circ}\text{C}/\text{W}$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

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

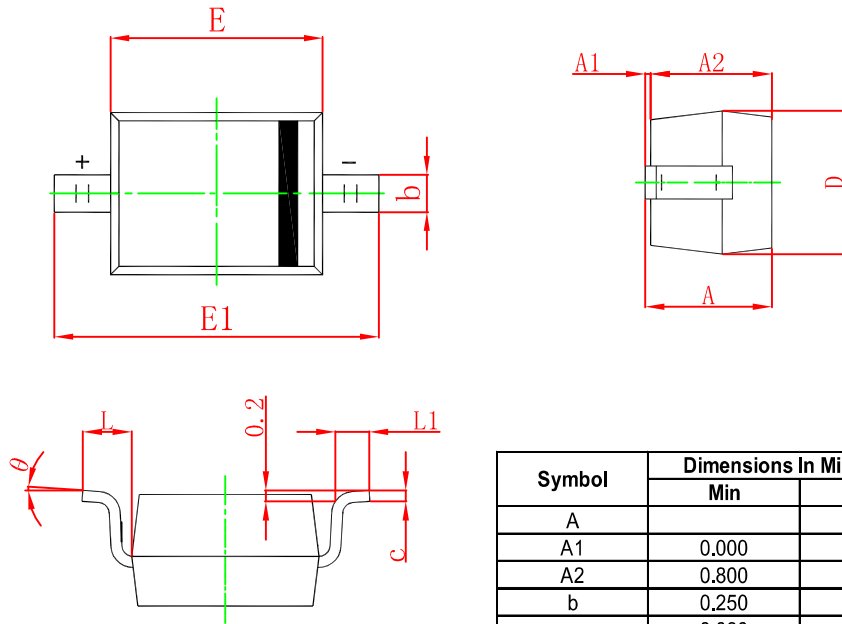
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\mu\text{A}$	100			V
Reverse current	$I_R$	$V_R=75\text{V}$			5	nA
		$V_R=100\text{V}$			80	nA
Forward voltage	$V_F$	$I = 1\text{mA}$			0.75	V
		$I_F=10\text{mA}$			0.85	V
		$I_F=50\text{mA}$			1.0	V
		$I = 150\text{mA}$			1.15	V
Total capacitance	$C_{tot}$	$V_R=0\text{V}, f=1\text{MHz}$		2		pF
Reverse recovery time	$t_{rr}$	$I_F= I_R = 10\text{mA}, I_{rr}=0.1 \cdot I_R$			3	$\mu\text{s}$

# Typical Characteristics



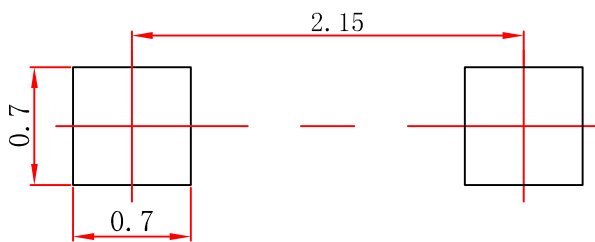
**CHANGJING ELEC.TECH**  
**PACKAGE OUTLINE AND PAD LAYOUT INFORMATION**

**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°	

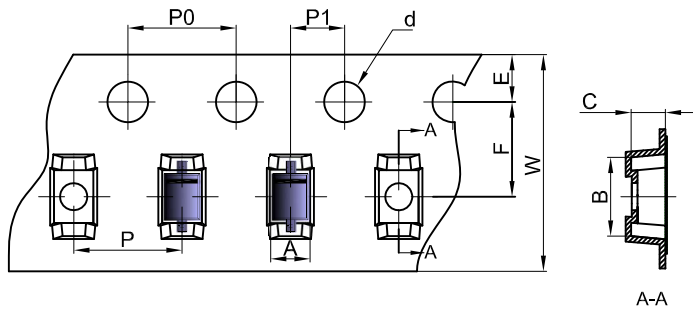
**SOD-323 Suggested Pad Layout**



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

# SOD-323 Tape and Reel

## SOD-323 Embossed Carrier Tape

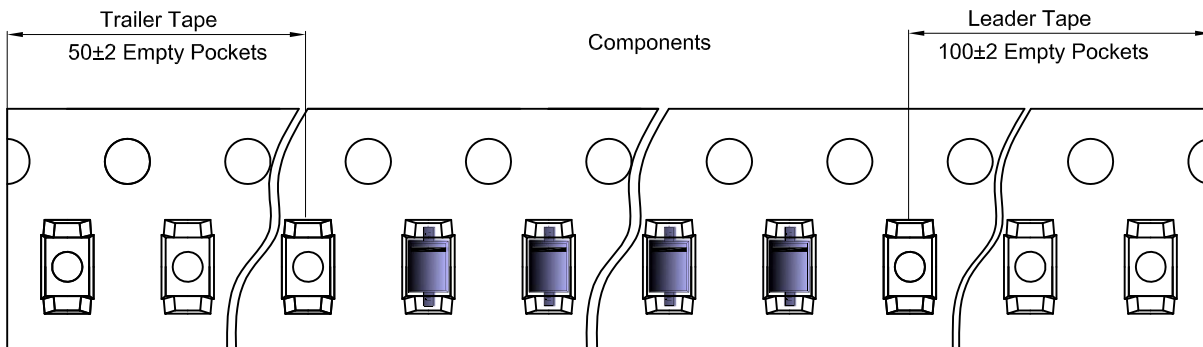


### Packaging Description:

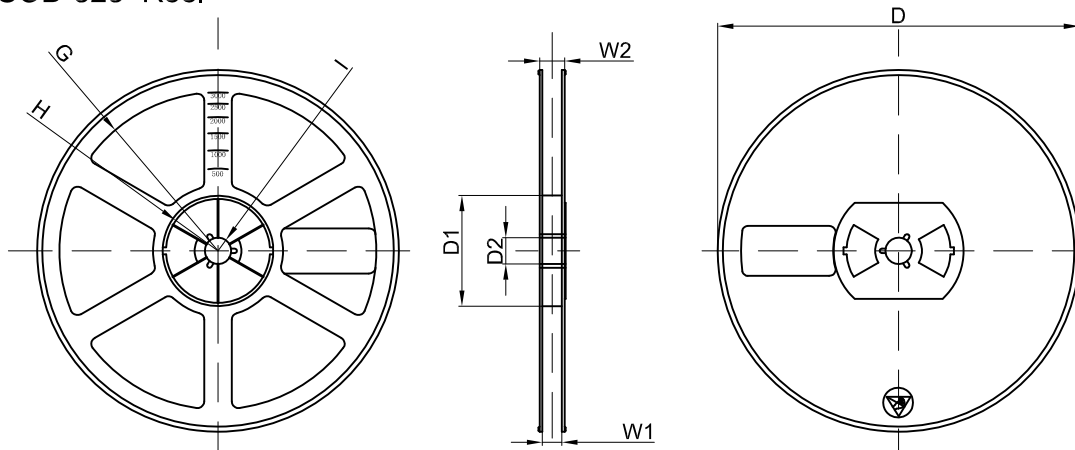
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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	