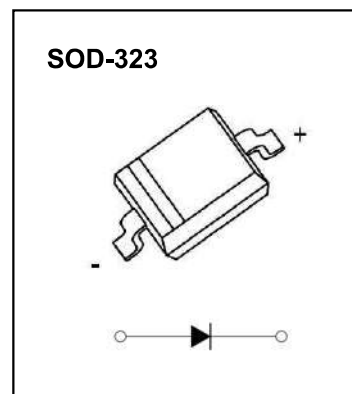


## SOD-323 Plastic-Encapsulate Diodes

SCHOTTKY BARRIER DIODE

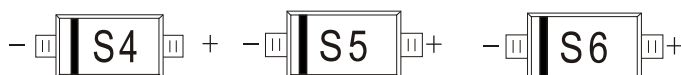
### Features:

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance



### MARKING:

SD103AWS:S4      SD103BWS:S5      SD103CWS:S6



The marking bar indicates the cathode

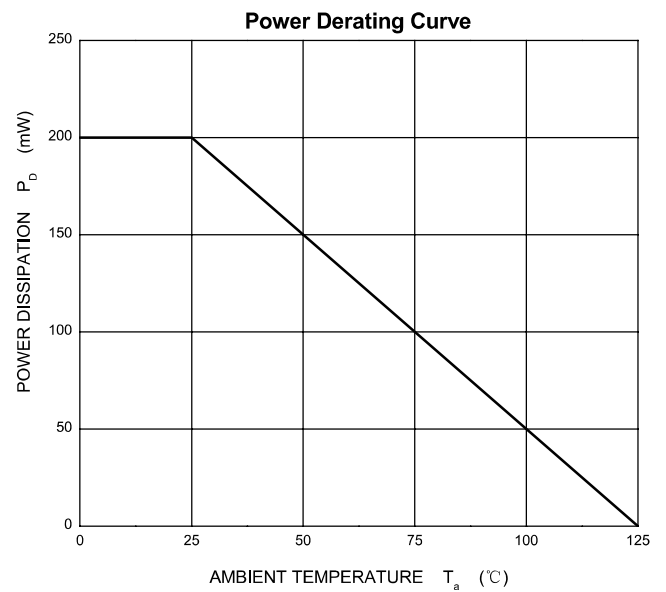
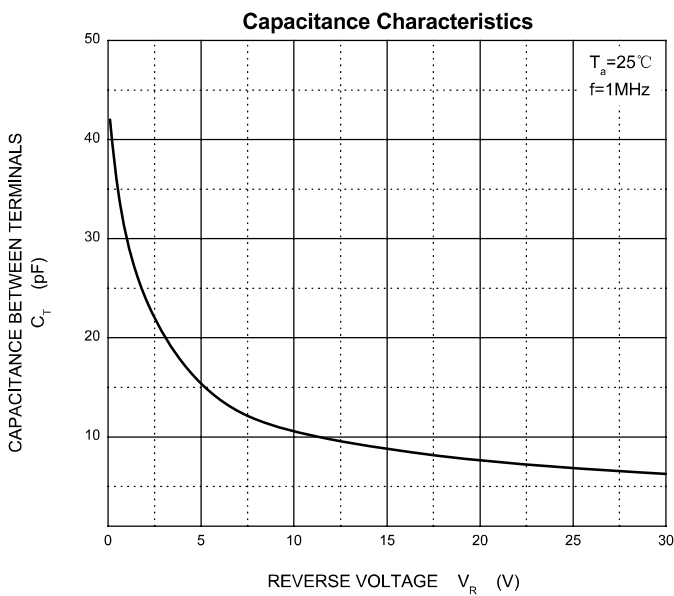
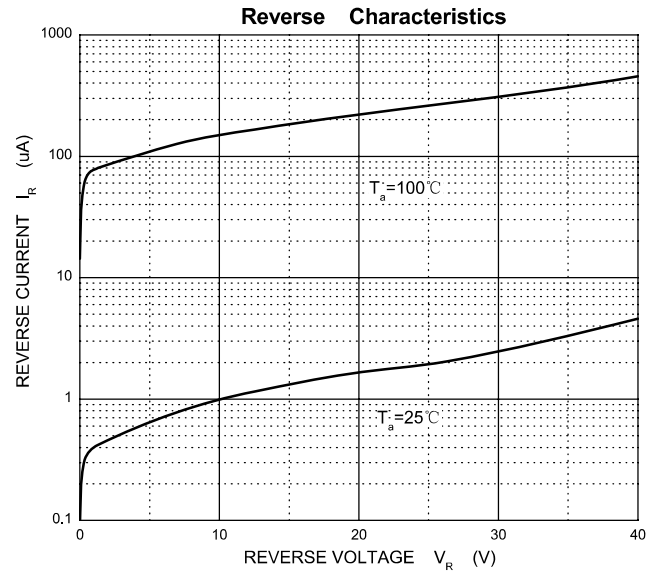
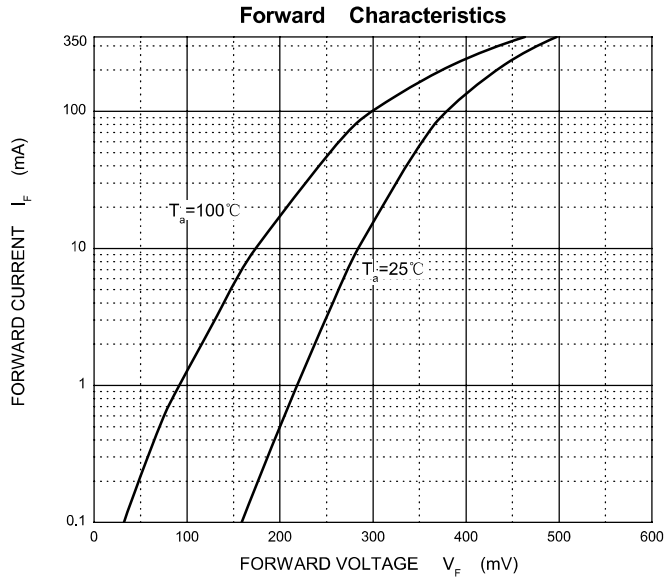
### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	40	30	20	V
DC Blocking Voltage	$V_R$				
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	$I_{FSM}$		2.0		A
Power Dissipation	$P_d$		200		mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$		500		°C/W
Junction Temperature	$T_j$		-40~+125		°C
Storage Temperature	$T_{STG}$		-55~+150		°C

### Electrical Ratings @Ta=25°C

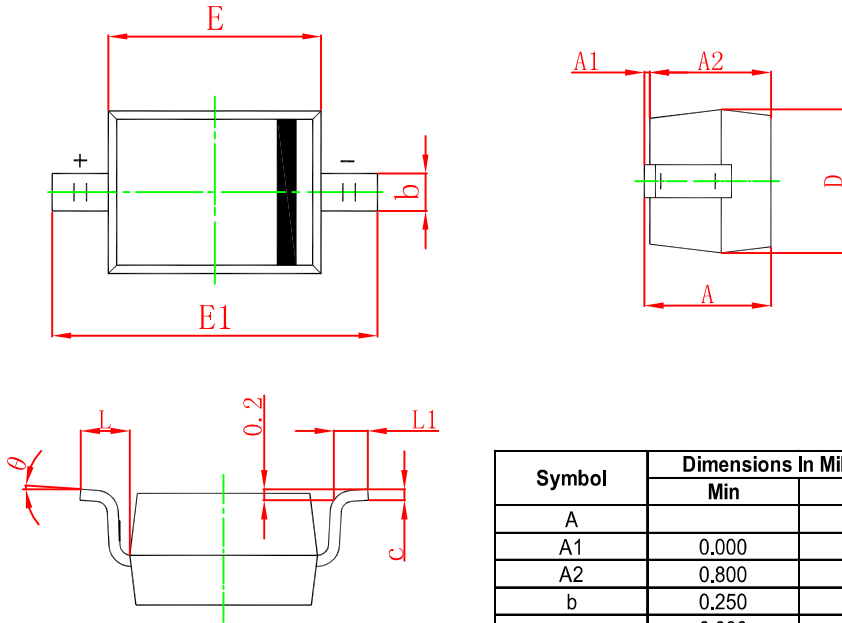
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	40			V	$I_R=100\mu A$
SD103AWS		30				$I_R=100\mu A$
SD103BWS		20				$I_R=100\mu A$
Forward voltage	$V_F$			0.37 0.60	V	$I_F=20mA$ $I_F=200mA$
Reverse current	$I_{RM}$			5.0		$\mu A$
SD103AWS						
SD103BWS						
Capacitance between terminals	$C_T$			50	pF	$V_R=0V, f=1.0MHz$
Reverse recovery time	$t_{rr}$		10		ns	$I_F=I_R=200mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

### Typical Characteristics



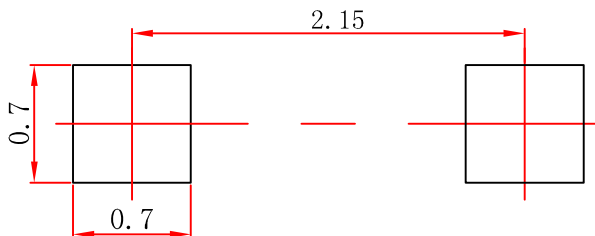
**PACKAGE OUTLINE AND PAD LAYOUT INFORMATION**

**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°	0°	8°

**SOD-323 Suggested Pad Layout**

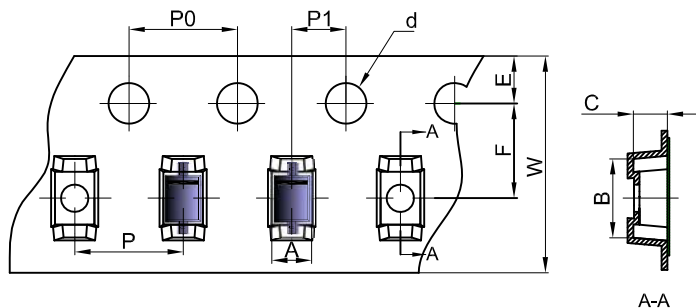


**Note:**

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



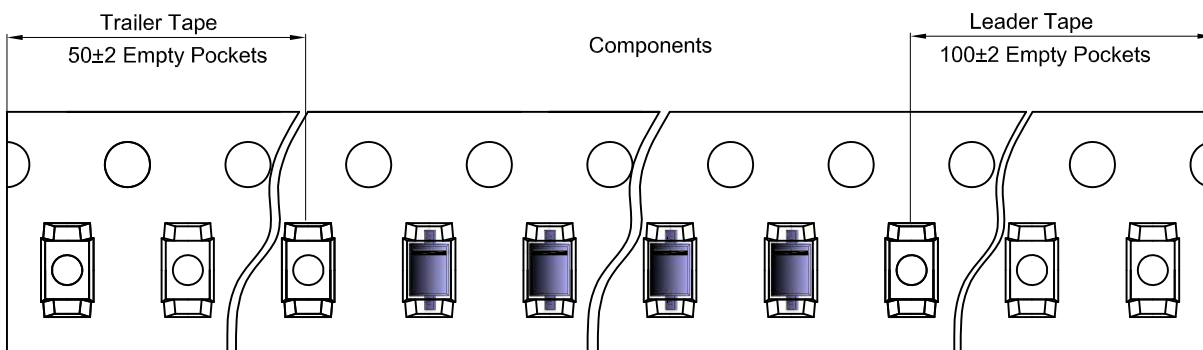
**Packaging Description:**

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).

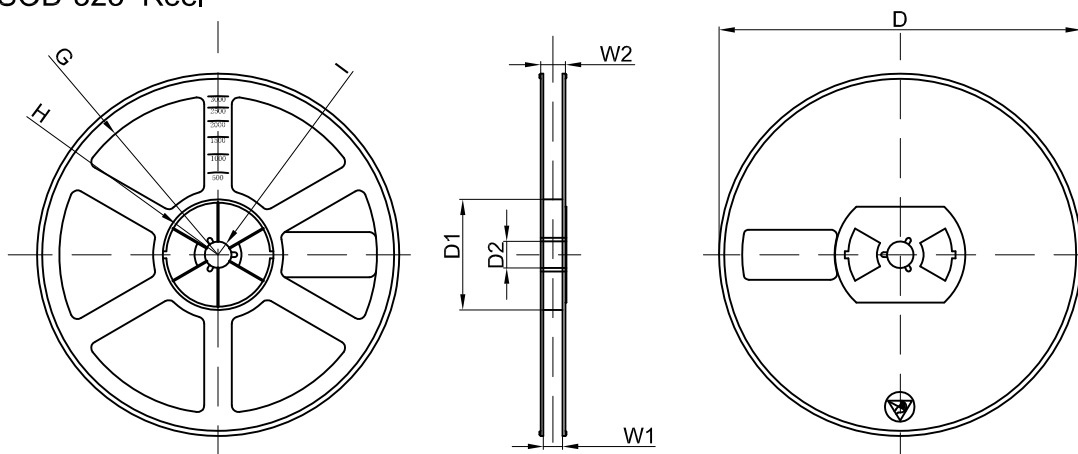
Dimensions are in millimeter

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	