

SOD-323 Plastic-Encapsulate Diodes

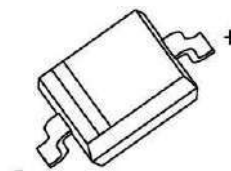
BAND SWITCHING DIODE

SOD-323

Features

- Very small plastic SMD package
- Low diode capacitance
- Low diode forward resistance
- Small inductance

Marking



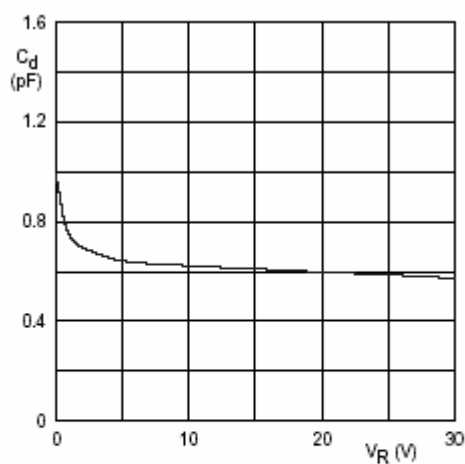
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	35	V
Continuous Forward Current	I_F	100	mA
Power Dissipation	P_{tot}	500	mW
Operating Junction Temperature Range	T_J	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 65 to + 150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

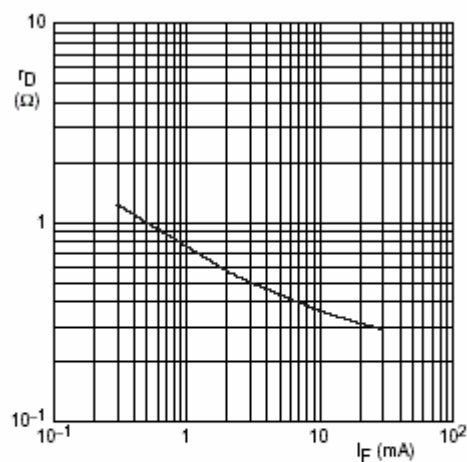
Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	1	V
Reverse Current at $V_R = 20\text{ V}$	I_R	-	20	nA
Diode Capacitance at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$ at $V_R = 3\text{ V}$, $f = 1\text{ MHz}$	C_D	- -	1.05 0.9	pF
Diode Forward Resistance at $I_F = 3\text{ mA}$, $f = 100\text{ MHz}$ at $I_F = 10\text{ mA}$, $f = 100\text{ MHz}$	r_D	- -	0.7 0.5	Ω
Reverse Resistance at $V_R = 1\text{ V}$, $f = 100\text{ MHz}$	$1/g_p$	100	-	K Ω
Series Inductance	L_s	2	-	nH

Typical Characteristics



$f = 1 \text{ MHz}; T_j = 25^\circ\text{C}.$

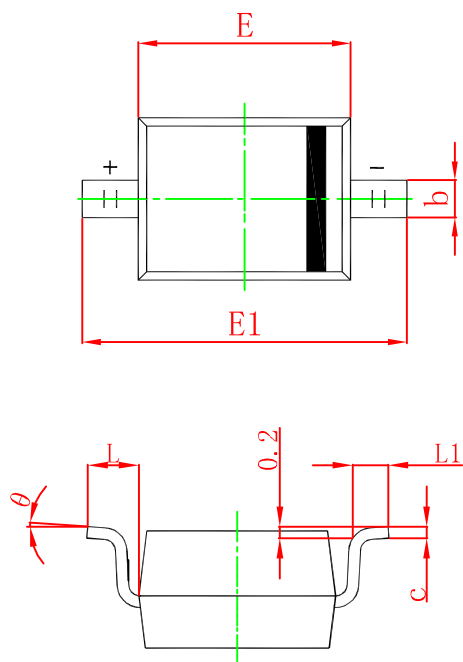
Fig.2 Diode capacitance as a function of reverse voltage; typical values.



$f = 100 \text{ MHz}; T_j = 25^\circ\text{C}.$

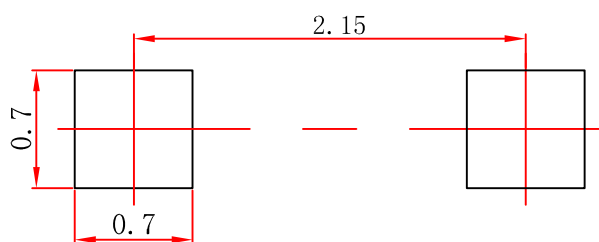
Diode forward resistance as a function of forward current; typical values.

SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
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	2.550	2.750	0.100	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

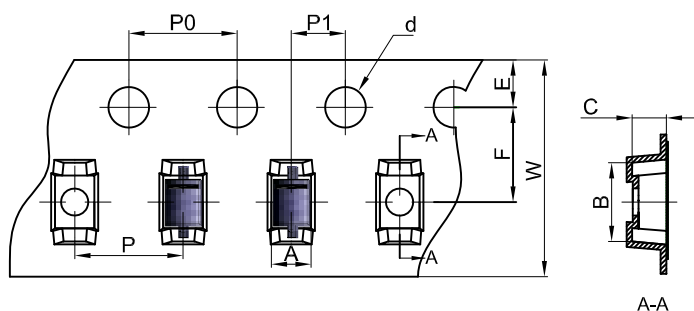


Note:

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

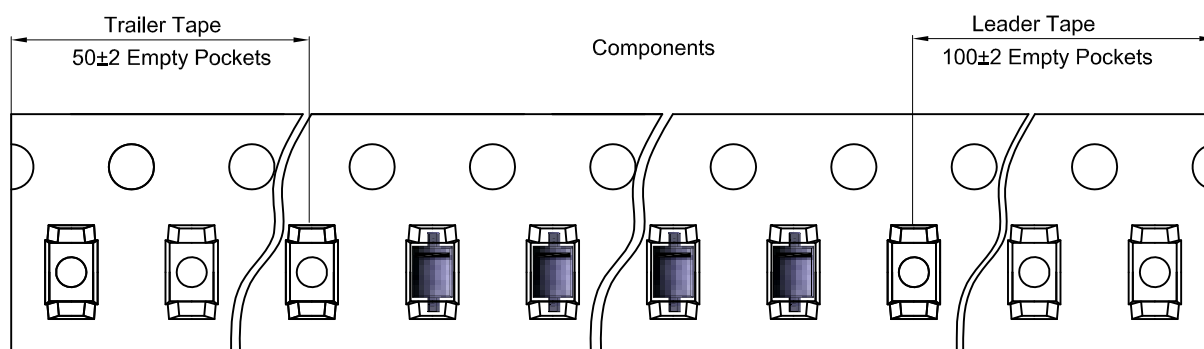


Packaging Description:

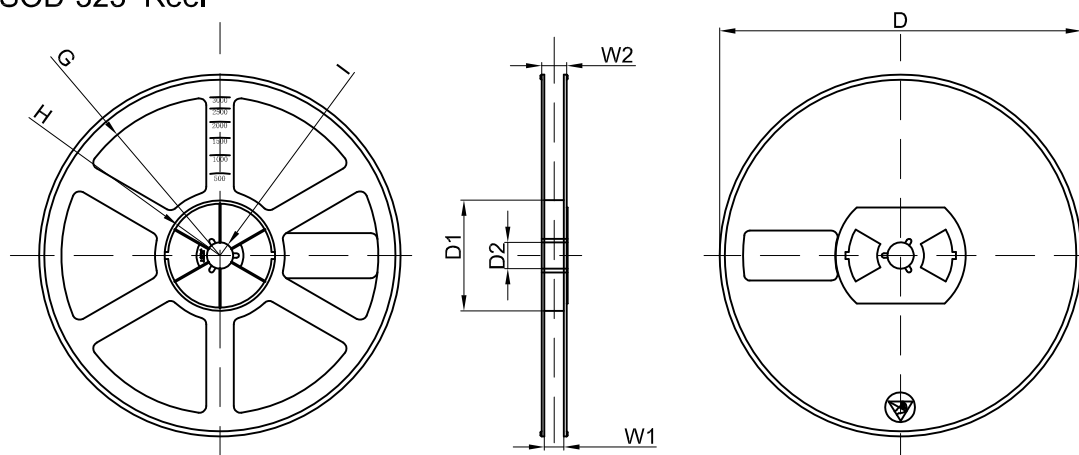
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts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