

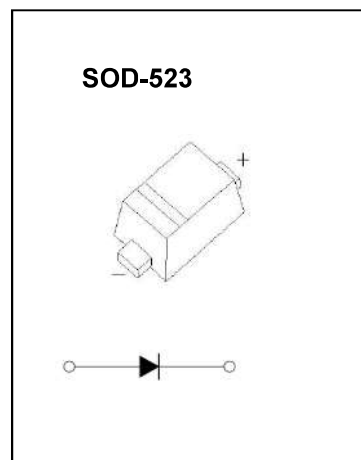
## SOD-523 Plastic-Encapsulate Diodes

Schottky barrier Diode

### Features:

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

MARKING: D1



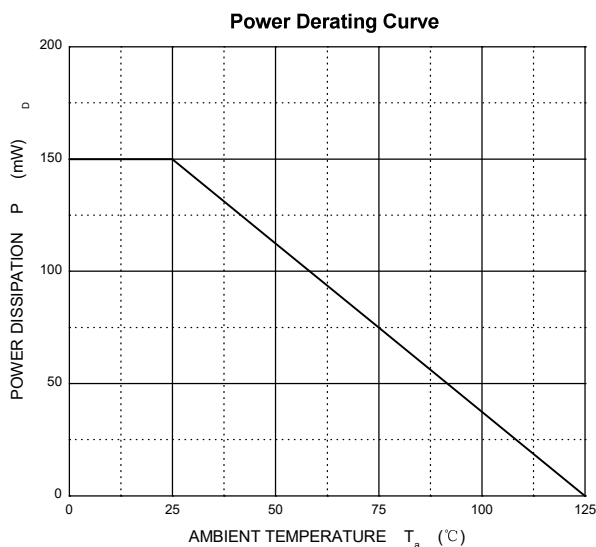
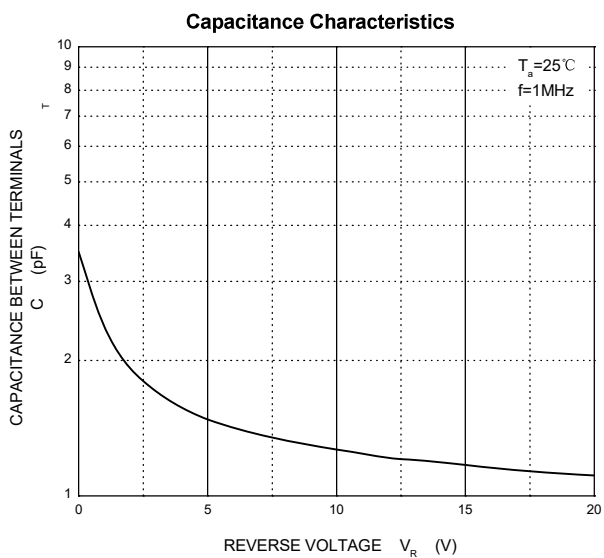
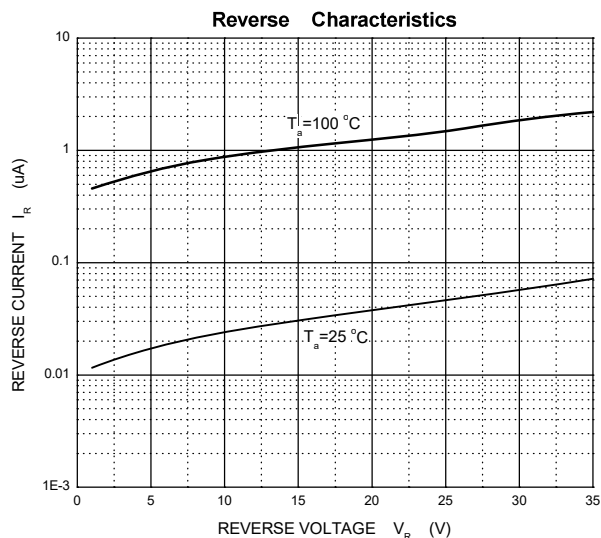
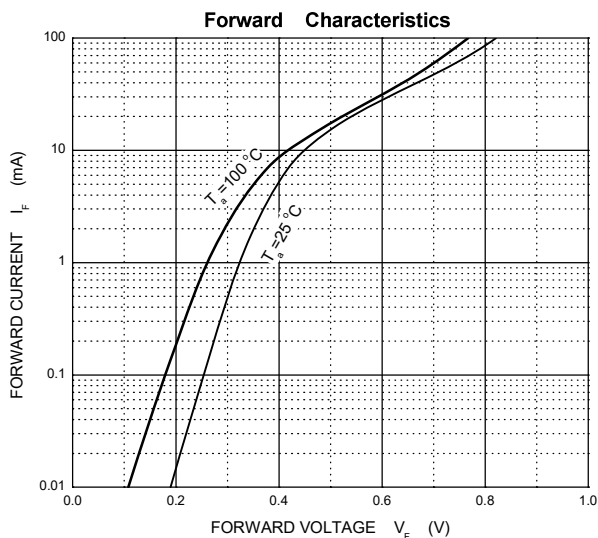
### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	Limit	Unit
Peak reverse voltage	$V_{RM}$	40	V
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_O$	30	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	$I_{FSM}$	200	mA
Power dissipation	$P_D$	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	667	°C/W
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55~+150	°C

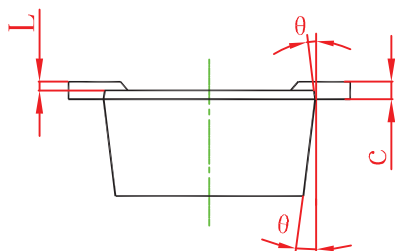
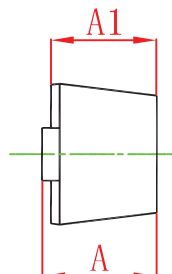
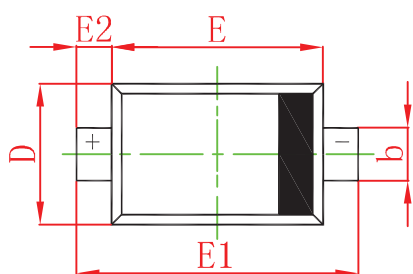
### Electrical Ratings @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse voltage	$V_{(BR)}$	40			V	$I_R=1mA$
Forward voltage	$V_F$	0.20		0.37	V	$I_F=1mA$
Reverse current	$I_R$	0.01		0.5	μA	$V_R=30V$
Capacitance between terminals	$C_T$	0.5	2	10	pF	$V_R=1V, f=1MHZ$

**Typical Characteristics**

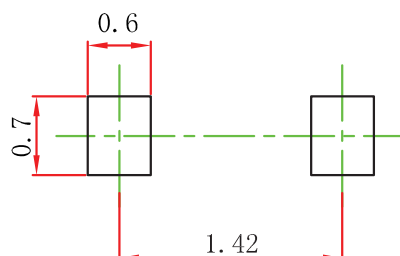


### SOD-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

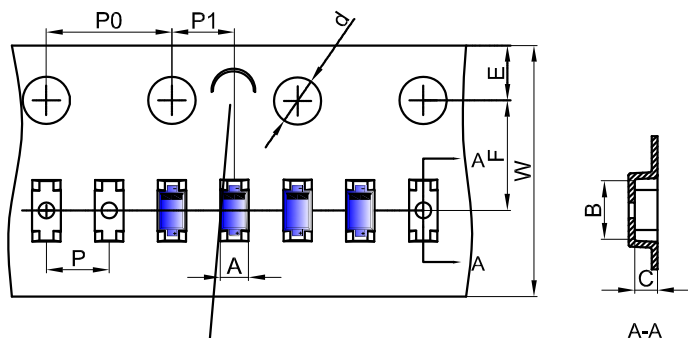
### SOD-523 Suggested Pad Layout



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

### SOD-523 Tape and Reel

#### SOD-523 Embossed Carrier Tape

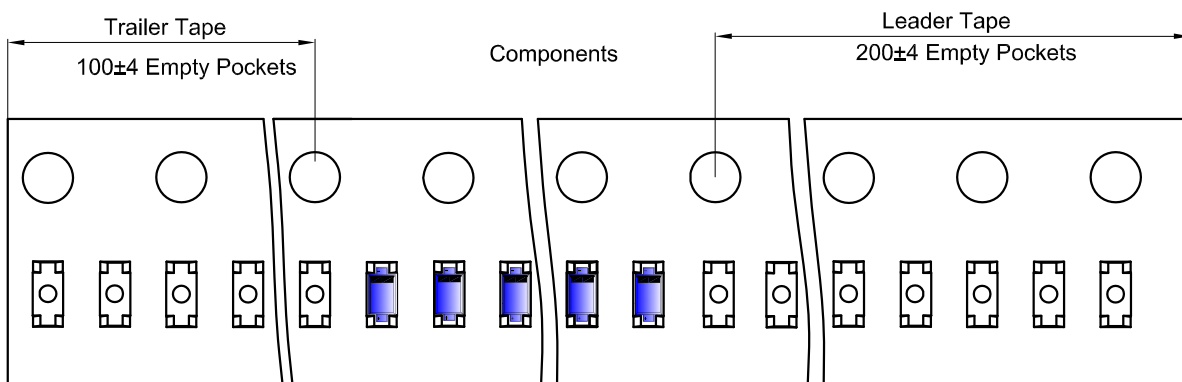


**Packaging Description:**  
 SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 8,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

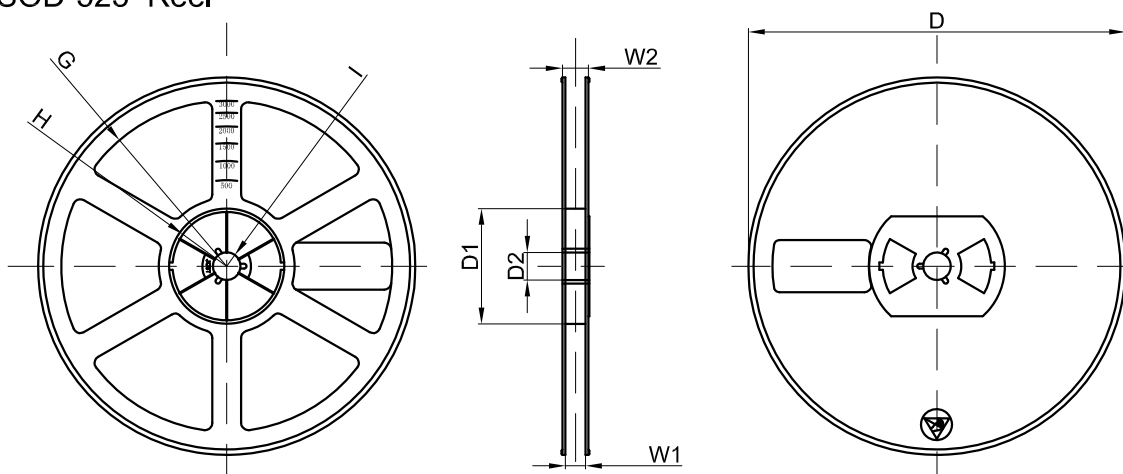
NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.9	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

#### SOD-523 Tape Leader and Trailer



#### SOD-523 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)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	