

### SILICON EPITAXIAL PLANAR DIODE

#### Band Switching Diode

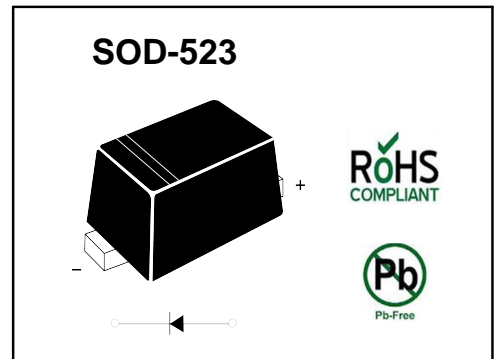
#### Applications

- For VHF tuner band RF attenuator
- AGC for FM tuner

Marking Code: "S"

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	50	V
Forward Current	$I_F$	50	mA
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Voltage at $I_R = 10\text{ }\mu\text{A}$	$V_R$	50	-	-	V
Reverse Current at $V_R = 50\text{ V}$	$I_R$	-	-	0.1	$\mu\text{A}$
Total Capacitance at $V_R = 50\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	-	0.25	-	pF
Series Resistance at $I_F = 5\text{ mA}$ , $f = 100\text{ MHz}$	$r_s$	-	1.5	-	$\Omega$

### Typical Characteristics

Fig. 1  $I_C-T_A$

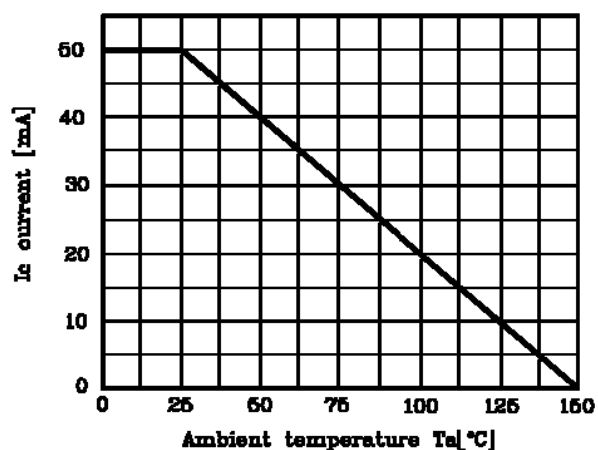


Fig. 2  $I_F-V_F$

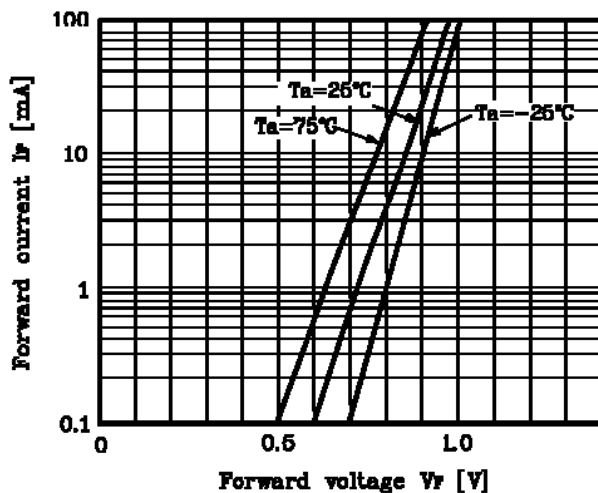


Fig. 3  $C_T-V_R$

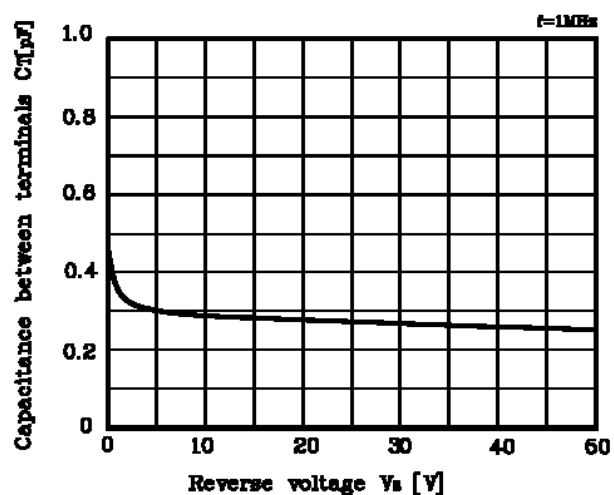
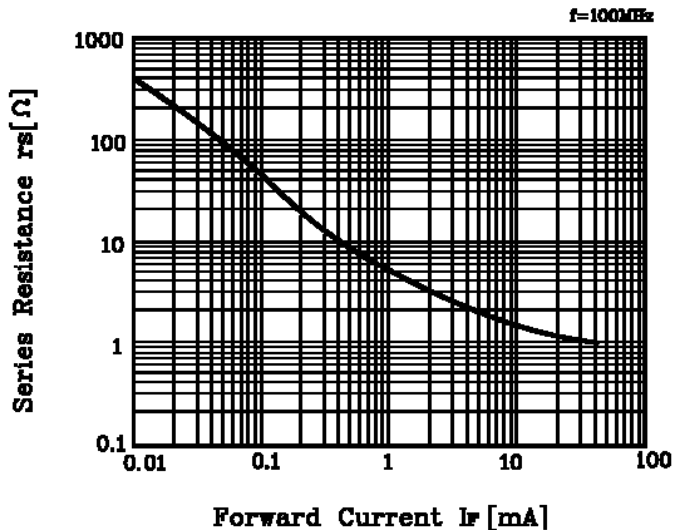
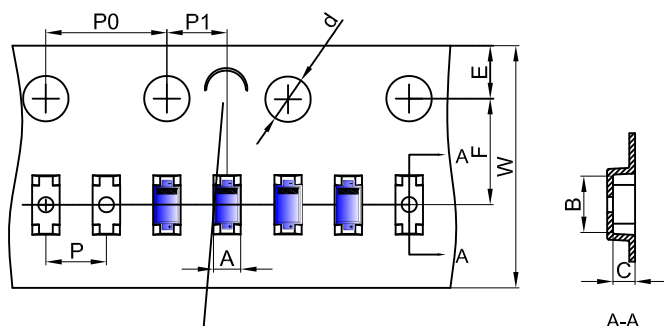


Fig. 4  $r_s-I_F$



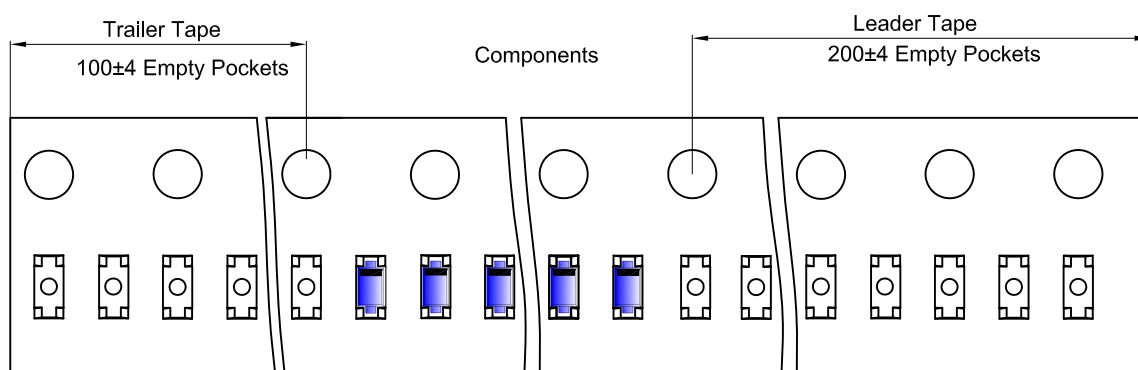
### SOD-523 Embossed Carrier Tape



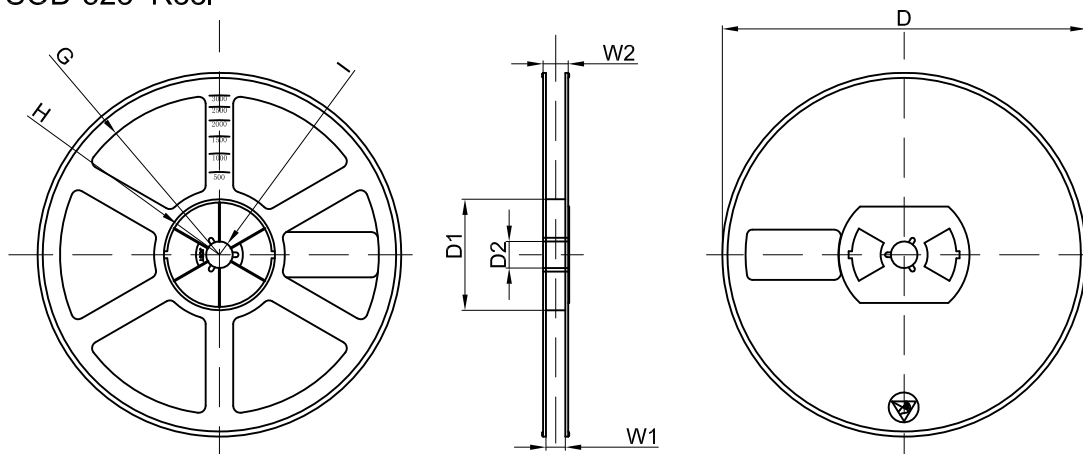
NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

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



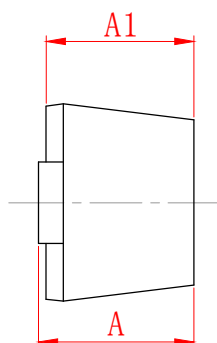
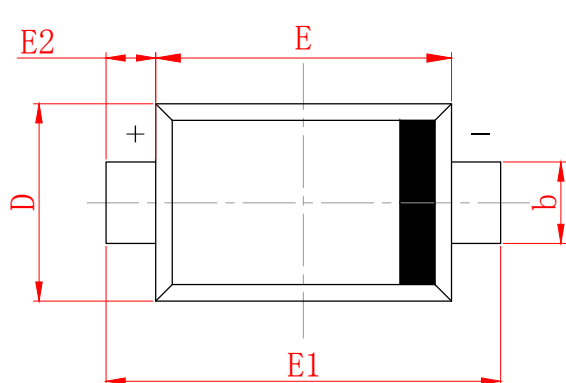
### SOD-523 Reel



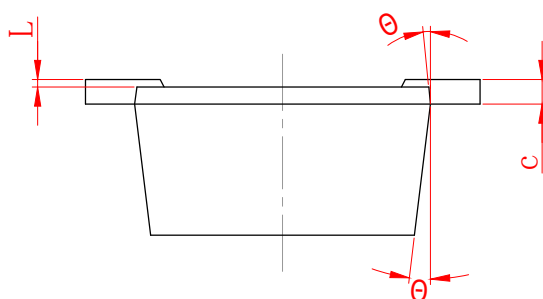
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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	

### SOD-523 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
$\theta$	7° REF	



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