

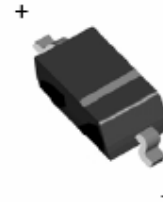
## 0.5 AMPERES SMALL SIGNAL SURFACE MOUNTS SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE : 30 to 80 Volts**

**CURRENT : 0.5 Amperes**

### FEATURES

- Low Forward Voltage Drop
- Low reverse leakage current
- Guard ring for over voltage protection
- Small plastic SMD package
- Lead Free/ROHS Compliant
- 



### MECHANICAL DATA


**Case :** SOD-523 plastic case

**Polarity :** As Mark

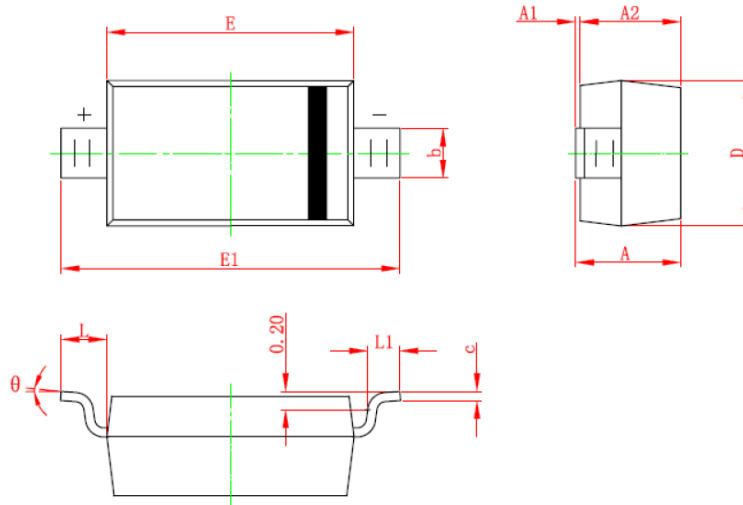
**Mounting Position :** Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load.  
For capacitive load, derate current by 20%.

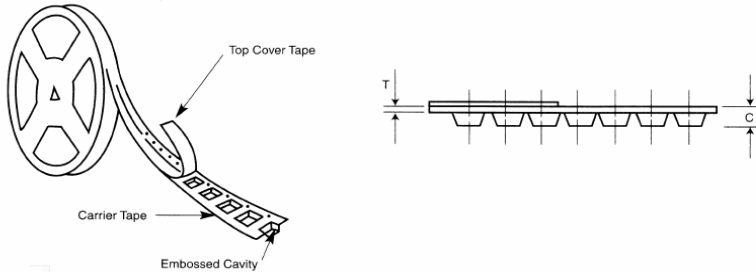
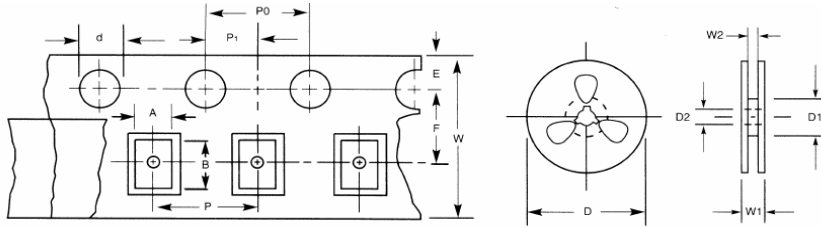
Marking Information :	SOD-523	B551S-30	B551S-40	B551S-60	B551S-80	UNITS
						
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30	40	60	80	V
Working Peak Reverse Voltage	$V_{RWM}$	30	40	60	80	V
Maximum DC Blocking Voltage	$V_{DC}$	30	40	60	80	V
Maximum Average Forward Current	$I_{F(AV)}$	0.5				A
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load (JEDEC Method) per leg	$I_{FSM}$	30				A
Operating Junction Temperature Range	$T_J$	-55 to +125				°C
Storage Temperature Range	$T_{STG}$	-55 to +125				°C
Maximum Forward Voltage per leg (At $I_F=5A$ , $T_J=25^\circ C$ )	$V_F$	0.50	0.52	0.73	0.81	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1				mA

Outline



Package	SOD-523			
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.51	0.77	0.020	0.031
A1	0.50	0.70	0.020	0.028
A2				
b	0.25	0.35	0.010	0.014
c	0.08	0.15	0.003	0.006
D	0.75	0.85	0.030	0.033
E	1.10	1.30	0.043	0.051
E1	1.50	1.70	0.059	0.067
L	0.20REF		0.008REF	
L1	0.010	0.001	0.001	0.003
θ	7°REF		7°REF	

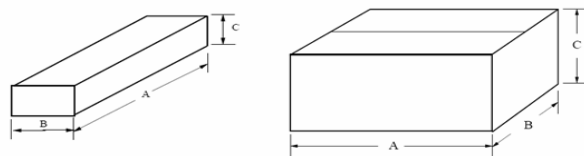
## Reel Taping Specification For Surface Mount Devices



### Reel Dimensions

Item	Symbol	SOD-523
Carrier width	A	0.96±0.05
Carrier length	B	1.94±0.05
Carrier depth	C	0.73±0.05
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	178±1.0
Reel inner diameter	D1	54.4±2.4
Feed hole diameter	D2	13.0±0.2
Sprocket hole position	E	1.75±0.1
Punch hole position	F	3.5±0.05
Punch hole pitch	P	4.0±0.1
Sprocket hole pitch	Po	4.0±0.1
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.18±0.02
Tape width	W	8+0.2-0.1
Reel width	W1	12.3±1.0
Reed width	W2	9.5±0.1.0

## Packaging Specification



Dimension	Reel	Inner Box (mm)				Carton (mm)			
		QTY	A	B	C	QTY	A	B	C
SOD-523	3,000	30,000	303	303	195	130,000	438	438	230