

1.0 AMPERES SMALL SIGNAL SURFACE MOUNTS SCHOTTKY BARRIER RECTIFIERS

VOLTAGE : 20 to 40 Volts

CURRENT : 1.0 Amperes – Low Vf

FEATURES

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


Case : SOD-123, SOD-323 plastic case

Polarity : As Mark

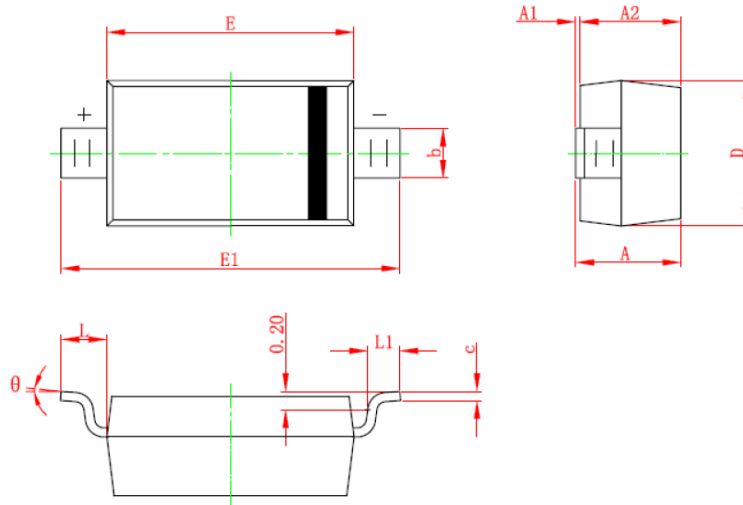
Mounting Position : Any

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%.

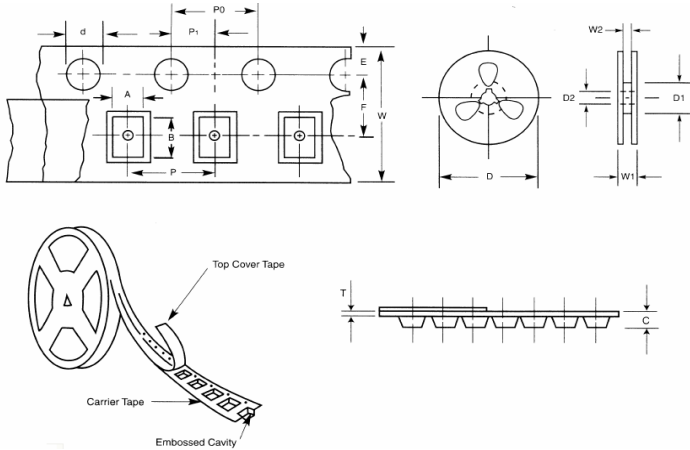
Marking Information : 	SOD-123	B120LW	B130LW	B140LW	UNITS
	SOD-323	B120LWS	B130LWS	B140LWS	
	Marking	B2	B3	B4	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Current	$I_{F(AV)}$	1.0			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	0.38	0.38	0.40	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^\circ C$ 1.0			mA
Typical Thermal Resistance	R θ JC	SOD-123 304		°C/W	
		SOD-323 500			

Outline



Package	SOD-123				SOD-323			
	Dimensions In Millimeters		Dimensions In Inches		Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max	Min	Max	Min	Max
A	1.05	1.25	0.041	0.049		1.0		0.039
A1	0.00	0.10	0.000	0.004	0.00	0.10	0.00	0.004
A2	1.05	1.15	0.041	0.045	0.80	0.90	0.031	0.035
b	0.45	0.65	0.018	0.026	0.25	0.35	0.010	0.014
c	0.08	0.15	0.003	0.006	0.08	0.15	0.003	0.006
D	1.50	1.70	0.059	0.067	1.20	1.4	0.047	0.055
E	2.60	2.80	0.102	0.110	1.60	1.8	0.063	0.071
E1	3.55	3.85	0.140	0.152	2.50	2.7	0.098	0.106
L	0.500REF		0.020REF		0.475REF		0.019REF	
L1	0.25	0.45	0.010	0.018	0.25	0.40	0.010	0.016
θ	0°	8°	0°	8°	0°	8°	0°	8°

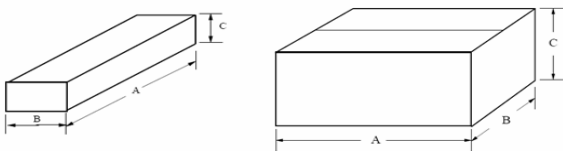
Reel Taping Specification For Surface Mount Devices



Reel Dimensions

Item	Symbol	SOD-123	SOD-323
Carrier width	A	1.85±0.1	1.52±0.1
Carrier length	B	3.94±0.1	2.90±0.1
Carrier depth	C	1.57±0.1	1.35±0.1
Sprocket hole	d	1.50±0.1	1.50±0.1
Reel outside diameter	D	178±1.0	178±1.0
Reel inner diameter	D1	54.4±2.4	54.4±2.4
Feed hole diameter	D2	13.0±0.2	13.0±0.2
Sprocket hole position	E	1.75±0.1	1.75±0.1
Punch hole position	F	3.5±0.05	3.5±0.05
Punch hole pitch	P	4.0±0.1	4.0±0.1
Sprocket hole pitch	Po	4.0±0.1	4.0±0.1
Embossment center	P1	2.0±0.05	2.0±0.05
Overall tape thickness	T	0.2±0.02	0.254±0.013
Tape width	W	8+0.2-0.1	8+0.2-0.1
Reel width	W1	12.3±1.0	12.3±1.0
Reed width	W2	9.5±0.1.0	9.5±0.1.0

Packaging Specification



Dimension	Reel	Inner Box (mm)				Carton (mm)			
		QTY	A	B	C	QTY	A	B	C
SOD-123	3,000	30,000	303	303	195	130,000	438	438	230
SOD-323	3,000	30,000	303	303	195	130,000	438	438	230