



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## SBR230LS SCHOTTKY RECTIFIER



SOD-123

### Features

- 125°C T<sub>J</sub> operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

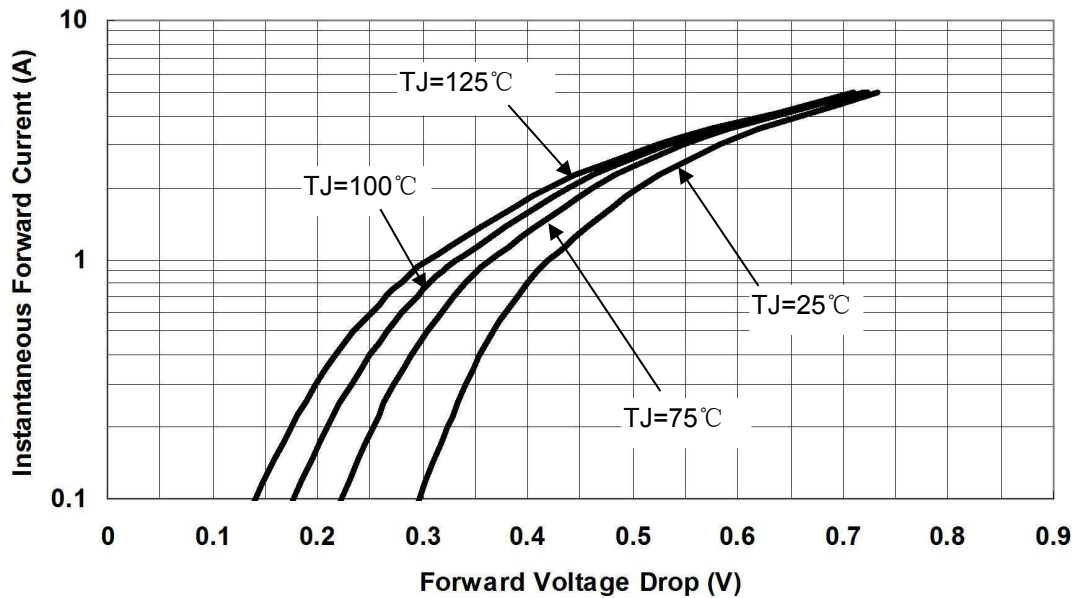
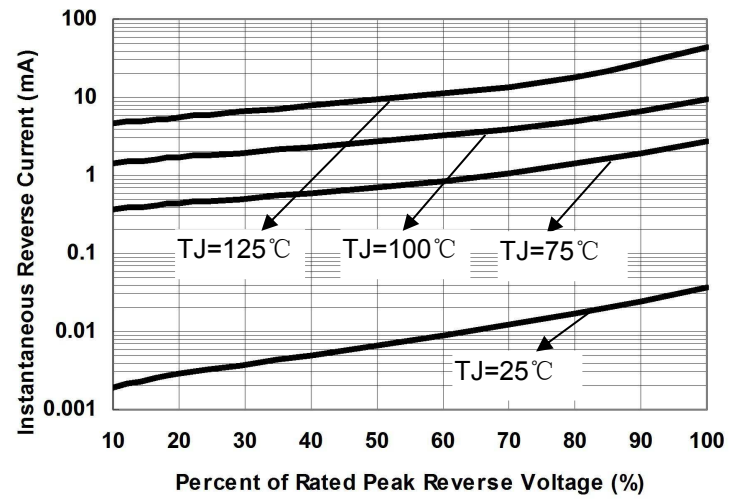
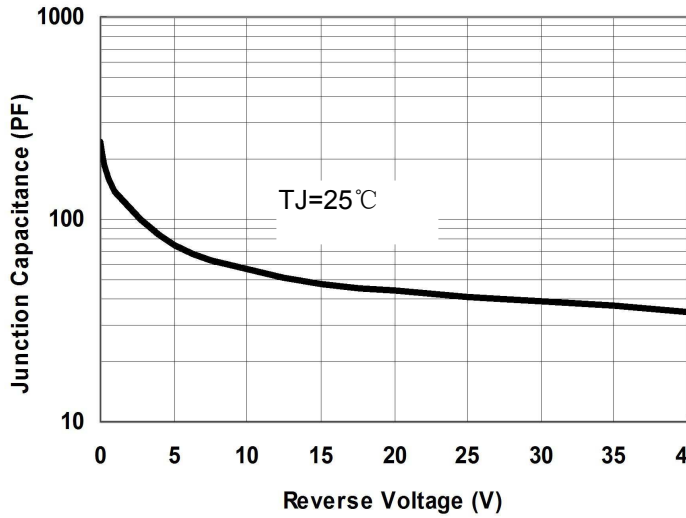
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
Average Rectified Forward Current @T <sub>L</sub> = 105°C	I <sub>O</sub>	2	A
Peak Repetitive Forward Current (at rated V <sub>R</sub> , square wave, 100kHz, T <sub>L</sub> =95°C)	I <sub>FRM</sub>	4.0	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Half-wave, Single Phase, 60 Hz)	I <sub>FSM</sub>	25	A
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C
Voltage Rate of Change (rated V <sub>R</sub> , T <sub>J</sub> =25°C)	dv/dt	10000	V/μs

Characteristic	Symbol	Typ.	Max.	Units
Forward Voltage @I <sub>F</sub> = 1A, T <sub>A</sub> = 25°C @I <sub>F</sub> = 2A, T <sub>A</sub> = 25°C @I <sub>F</sub> = 1A, T <sub>A</sub> = 100°C @I <sub>F</sub> = 2A, T <sub>A</sub> = 100°C	V <sub>FM</sub>	0.42 0.50 0.33 0.45	0.60 0.75 0.52 0.67	V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	0.03	1.0	mA
At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		10	25	
Junction Capacitance (Note 1)	C <sub>j</sub>	80	150	pF

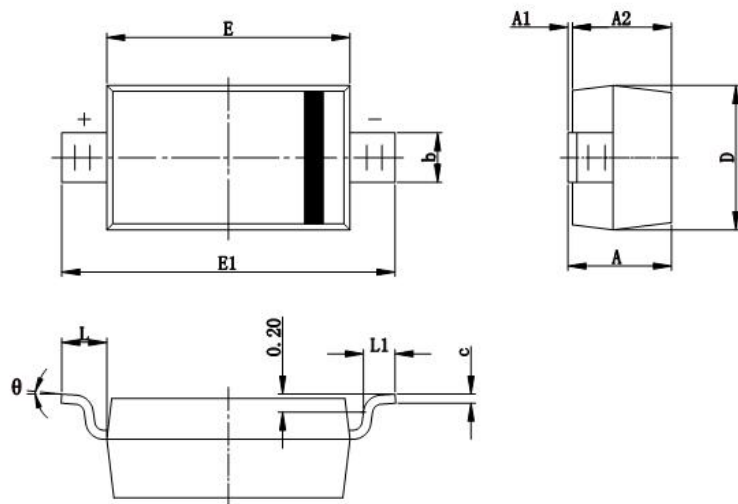
Note 1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.

## Ratings and Characteristics Curves





## Mechanical Dimensions SOD-123



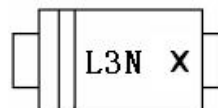
SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF.		0.020 REF.	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

## Ordering Information

Device	Package	Shipping
SBR230LS	SOD-123 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Marking Diagram

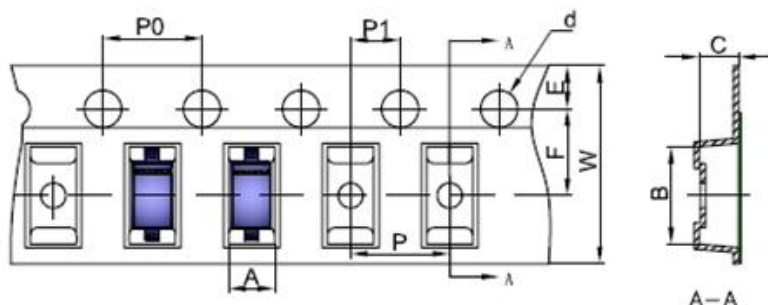


Where X is Date Code

L3N = Part Name

**SBR230LS**

## Carrier Tape Specification SOD-123



SYMBOL	Millimeters	
	Min.	Max.
A	1.80	1.90
B	3.89	3.99
C	1.52	1.62
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

**Technical Data**  
**Data Sheet N0893, Rev.D**



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