

## SOD-123 Plastic-Encapsulate Diodes



### • Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.



SOD-123

### • MAXIMUM RATINGS (T<sub>C</sub>=25°C)

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	40	V
Peak Repetitive Reverse Voltage	V <sub>R(RM)</sub>	40	V
Working Peak Reverse Voltage	V <sub>R(WM)</sub>	40	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Average Rectified Output Current	I <sub>O</sub>	1	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	9	A
Power Dissipation	P <sub>D</sub>	500	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	200	°C/W
Operation Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55~+150	°C

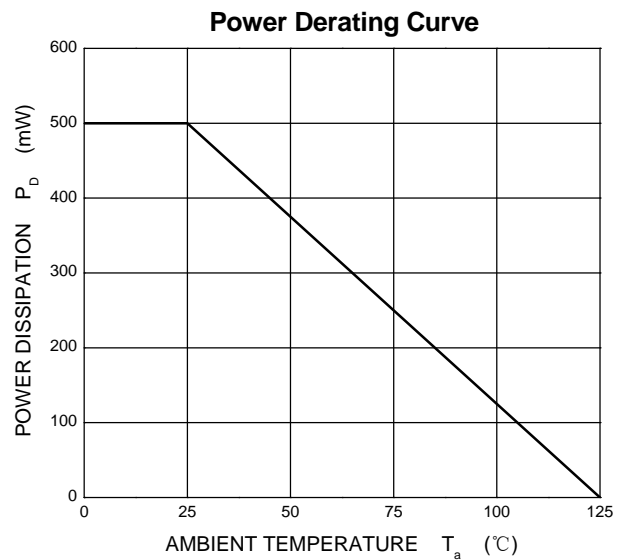
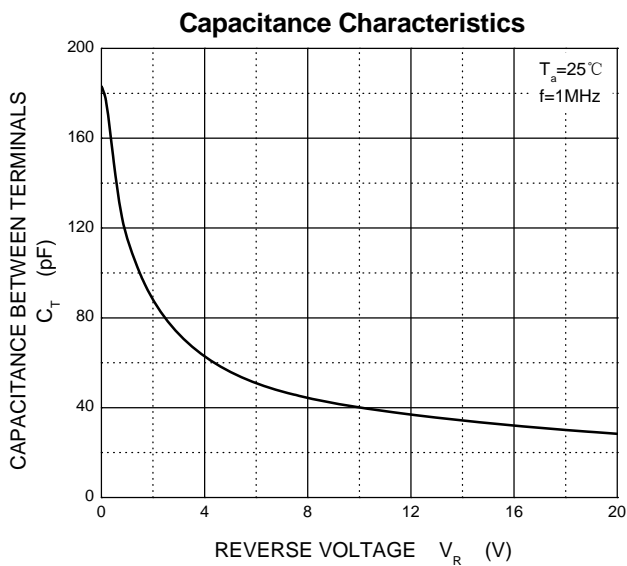
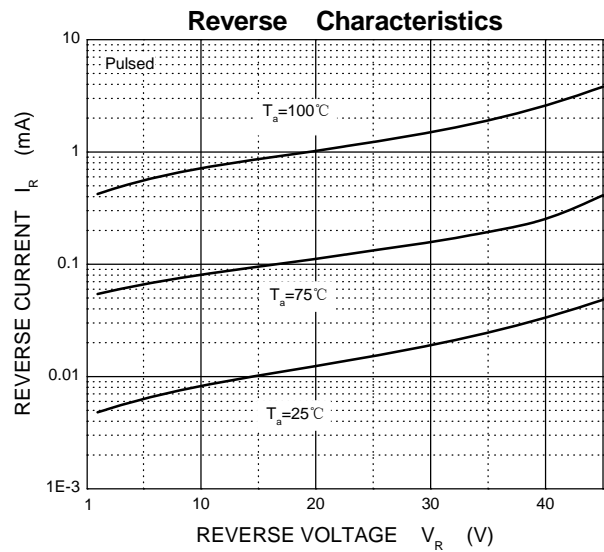
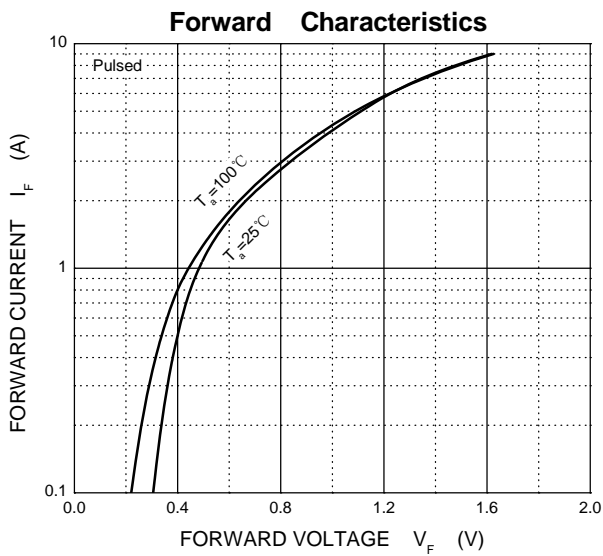
### • ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	V <sub>(BR)</sub>	I <sub>R</sub> = 1mA	40		V
Reverse voltage leakage current	I <sub>R</sub>	V <sub>R</sub> =40V		1	mA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A I <sub>F</sub> =3A		0.6 0.9	V
Diode capacitance	C <sub>D</sub>	V <sub>R</sub> =4V, f=1MHz		120	pF

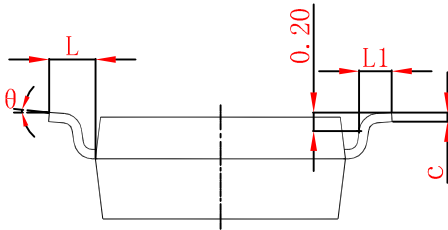
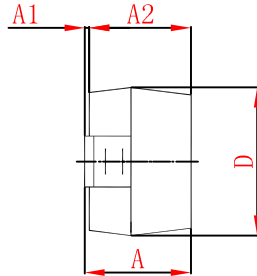
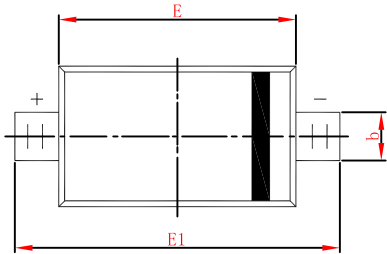
### Ordering Information:

Part NO.	B5819W
Marking	SL
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

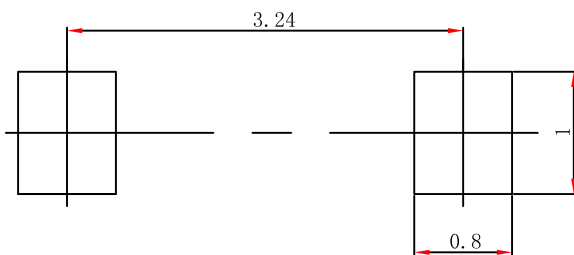
### Typical Characteristics



## SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In 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°



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