

## ■ Features

- High Current Capability
- Low Forward Voltage Drop

## ■ Applications

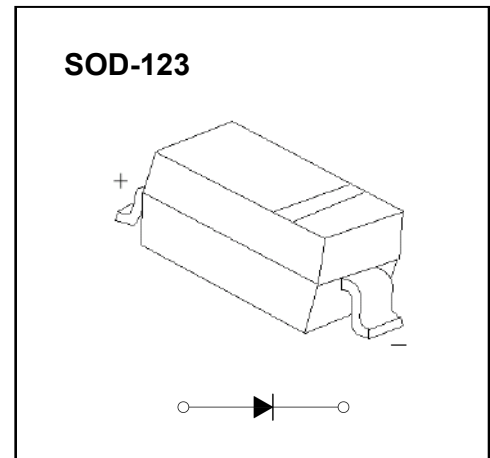
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

## ■ Mechanical Data

- package:SOD-123
- Polarity: Color band denotes cathode end
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any.

## ■ Ordering Information

Part Number	Package	Marking	Packing	Quantity per reel	Reel Size
B5817W	SOD-123	SJ	Tape & Reel	3,000 PCS	7 inches
B5818W	SOD-123	SK	Tape & Reel	3,000 PCS	7 inches
B5819W	SOD-123	SL	Tape & Reel	3,000 PCS	7 inches



## ■ Maximum Ratings & Thermal Characteristics (Ratings at 25 °C ambient temperature unless otherwise specified.)

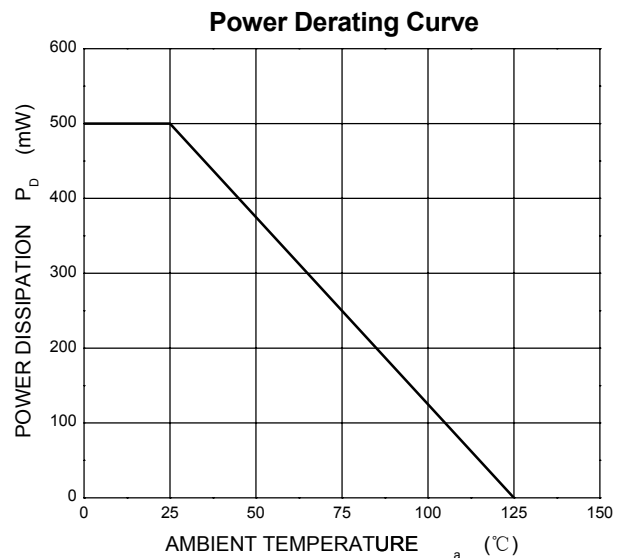
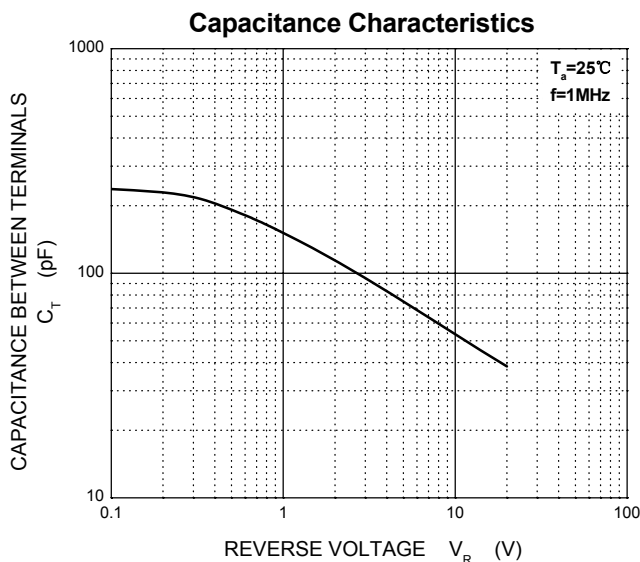
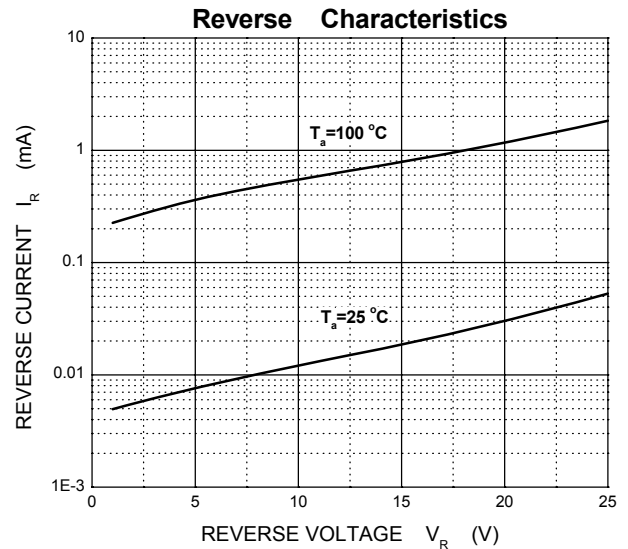
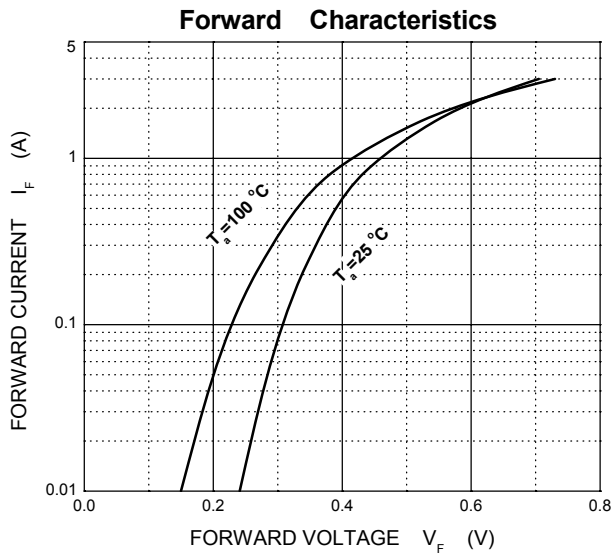
Parameters	Symbol	B5817W	B5818W	B5819W	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current	IFM	1			A
Peak forward surge current 8.3ms single half sine-wave	IFSM	9			A
Power Dissipation	PD	500			mW
Typical thermal resistance	R $\theta$ JA	250			°C/W
Operating junction temperature	T <sub>j</sub>	125			°C
Storage temperature range	TSTG	-50-+150			°C



■ Electrical Characteristics(Ratings at 25°C ambient temperature unless otherwise specified)

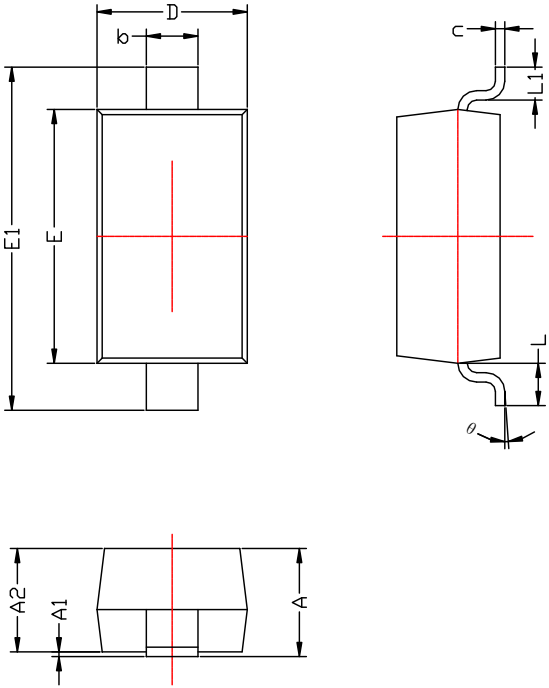
Parameters	Symbol	Test conditions	B5817W	B5818W	B5819W	Unit
Maximum forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1.0A	0.450	0.550	0.600	V
		I <sub>F</sub> = 3.0A	0.750	0.875	0.900	
Maximum reverse breakdown voltage	V <sub>R</sub>	I <sub>R</sub> =1mA	20	30	40	V
Maximum reverse current	I <sub>R</sub>	V <sub>R</sub> =20V B5817W V <sub>R</sub> =30V B5818W V <sub>R</sub> =40V B5819W	1.0			mA
Type junction capacitance	C <sub>j</sub>	V <sub>R</sub> = 4.0V, f = 1MHz	120			pF

■ Typical Characteristics





■ SOD-123 Package Outline Dimensions



Symbol	Dimensions	
	MIN	MAX
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°