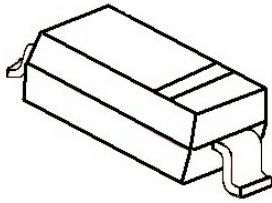


**SOD-123**


**Marking: B5817W: SJ**  
**B5818W: SK**  
**B5819W: SL**

**Features**

- High Current Capability
- Low Forward Voltage Drop

**Mechanical Data**

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

**Maximum Ratings & Thermal Characteristics**

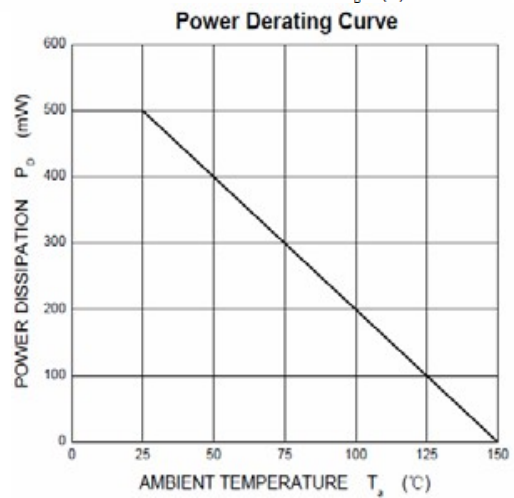
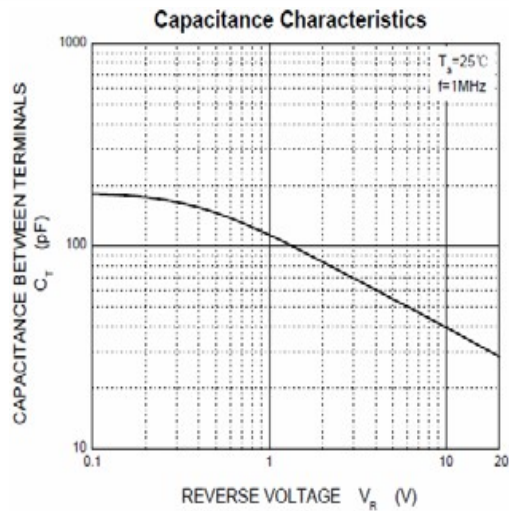
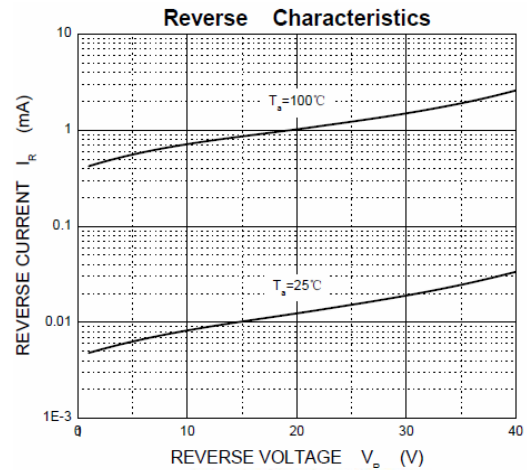
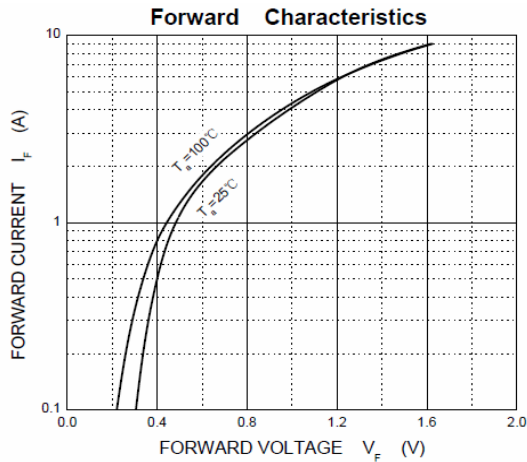
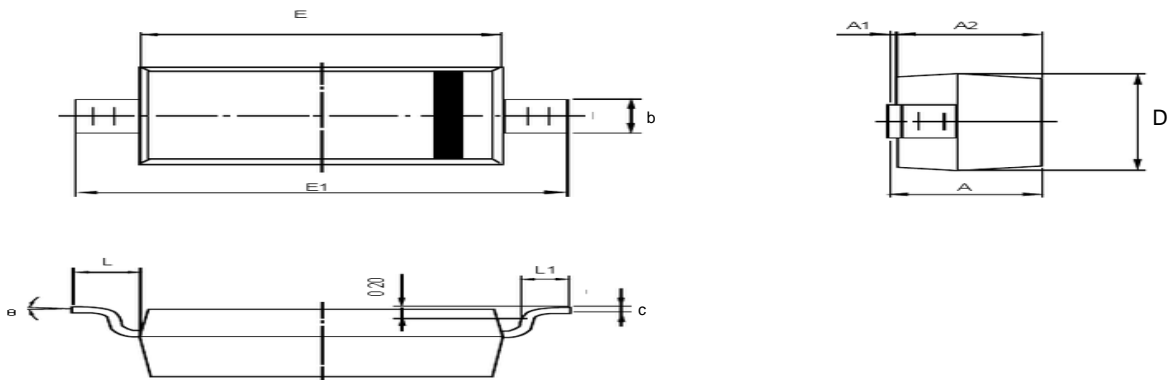
(Ratings at 25°C ambient temperature unless otherwise specified.)

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	1.0			A
Peak forward surge current 8.3 ms single half sine-wave	IFSM	9			A
Typical thermal resistance	RθJA	250			°C/W
Power Dissipation	PD	500			mW
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>	IF = 1.0A IF = 3.0A	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse breakdown voltage	V <sub>R</sub>	IR=1mA	20	30	40	V
Maximum reverse current	I <sub>R</sub>	VR=20V B5817W VR=30V B5818W VR=40V B5819W	1.0			mA
Type junction capacitance	C <sub>j</sub>	VR = 4.0V, f = 1MHz	120			pF


**SOD-123 PACKAGE OUTLINE** Plastic surface mounted package


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	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°