

## SOD- 123 Plastic-Encapsulate Schottky Barrier Diode

### 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



**Marking: SOD-123**  
 B5817W: SJ  
 B5818W: SK  
 B5819W: SL

### Maximum Ratings & Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

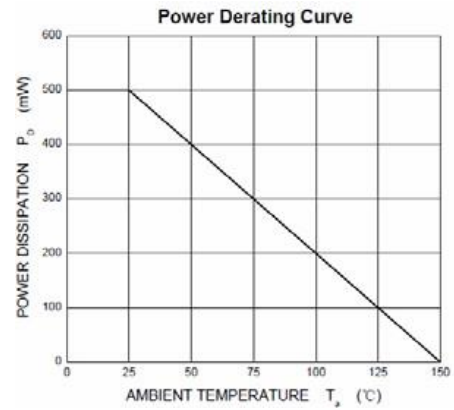
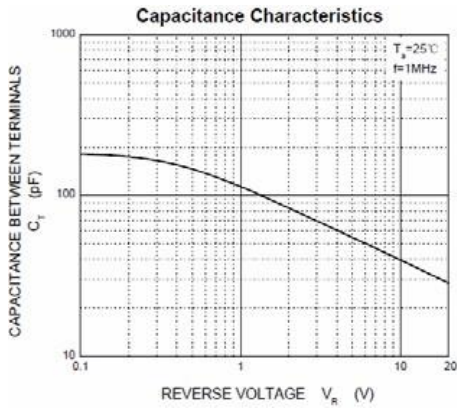
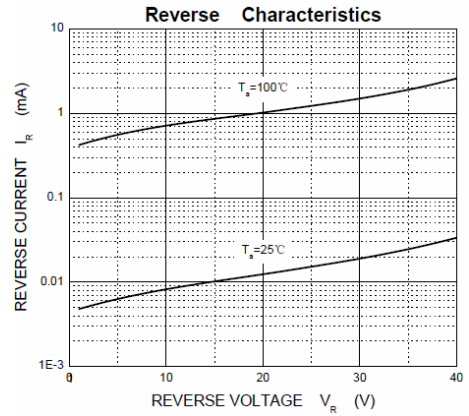
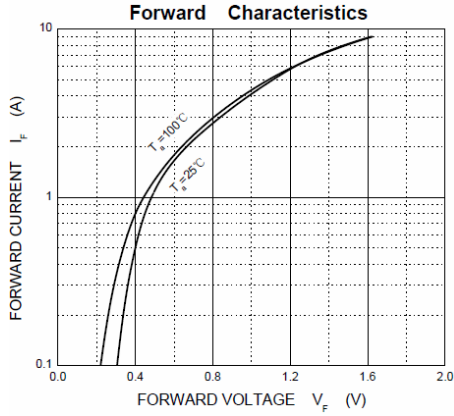
Parameters	Symbol	Value			Unit
		B5817W	B5818W	B5819W	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	V
Non-repetitive Peak Forward Current	I <sub>FM</sub>	1.0			A
Peak forward surge current 8.3 ms single half sine-wave	I <sub>FSM</sub>	9			A
Power dissipation	P <sub>D</sub>	500			mW
Typical thermal resistance	R <sub>θJA</sub>	250			°C/W
Storage temperature range	T <sub>STG</sub>	-50-+150			°C

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Maximum reverse breakdown voltage	VR	IR=1mA	20 30 20		V
Maximum reverse current	IR	VR=20V VR=30V VR=40V		1.0	mA
Maximum forward voltage	VF	IF=1.0A		0.450 0.550 0.600	V
		IF=3.0A		0.750 0.875 0.900	V
Type junction capacitance	CJ	VR=4.0V, f=1MHZ		120	pF

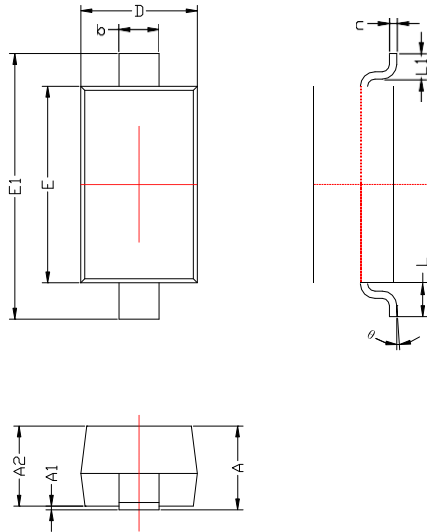
## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)



## Package Outline Dimensions

in inches (millimeters)



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°

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.03.31	First issue

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