

## SOD-123 Plastic-Encapsulated Schottky Barrier Diode

### Features

- High Current Capability
- Low Forward Voltage Drop
- P/N suffix V means AEC-Q101 qualified
- P/N suffix V means Halogen-free



### Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

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

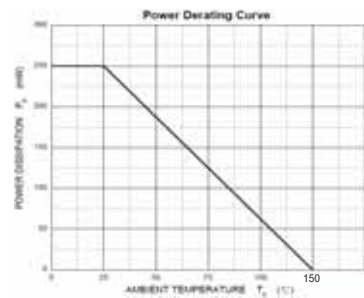
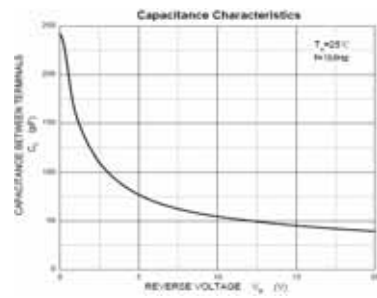
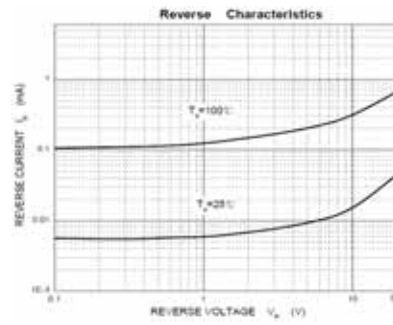
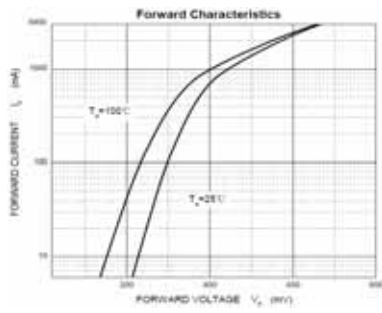
### Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

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 Current Squared Time	I <sup>2</sup> T	0.336			A <sup>2</sup> S
Typical thermal resistance	R <sub>θJA</sub>	250			°C/W
Power Dissipation	PD	500			mW
Storage temperature range	TSTG / TJ	-50-+150			°C

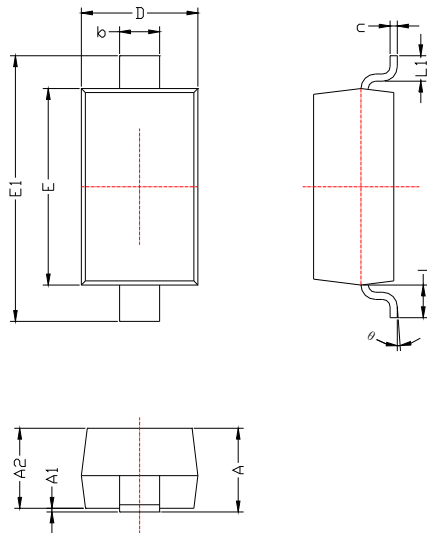
### Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

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

## RATING AND CHARACTERISTICS CURVES (B5817W THRU B5819W)

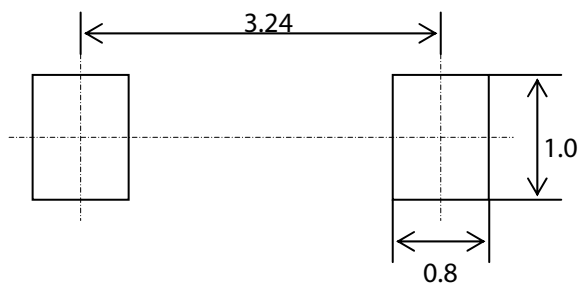


### SOD-123 PA CKAGE OUTLINE Plastic surface mounted package



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°

### 焊盘设计参考 Precautions: PCB Design(Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs)



中心距: 3.24  
脚宽: 0.55  
焊盘宽: 1.00  
脚长: 0.50  
焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2: 未注公差为:  $\pm 0.05$
- 3, 所有单位: mm

## PACKAGING OF DIODE

### REEL PACK

PACKAGE	PACKING CODE	REEL ( EA )	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123	-T	3,000	---	---	178	438*438*220	180,000	9.00