

# B5817W thru B5819W

Surface Mount Schottky Rectifier  
 Reverse Voltage 20 - 40V Forward Current 1A

## Features

- High Current Capability
- Low Forward Voltage Drop

## Mechanical Data

- Package: SOD-123
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any



Package: SOD-123



**RoHS**  
COMPLIANT

## Marking

- B5817W: GSJ
- B5818W: GSK
- B5819W: GSL

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

Parameters	Symbol	B5817W	B5818W	B5819W	Unit
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
Maximum Average Forward Rectified 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
Typical Thermal Resistance From Junction to Ambient	R <sub>θJA</sub>	250			°C/W
Typical Thermal Resistance From Junction to Case	R <sub>θJC</sub>	350			°C/W
Power Dissipation	P <sub>D</sub>	5			mW
Operating and Storage Temperature Range	T <sub>STG</sub>	-50 to +150			°C

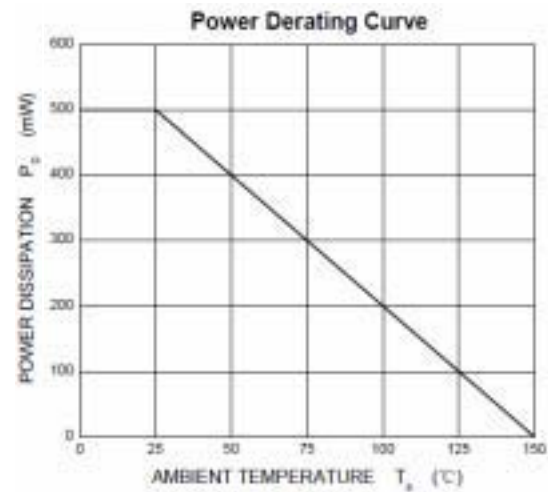
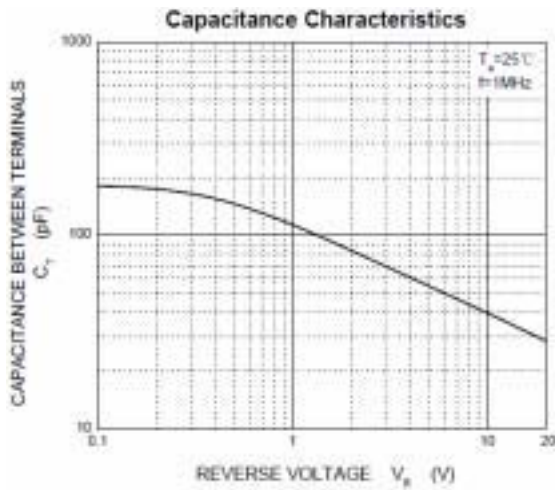
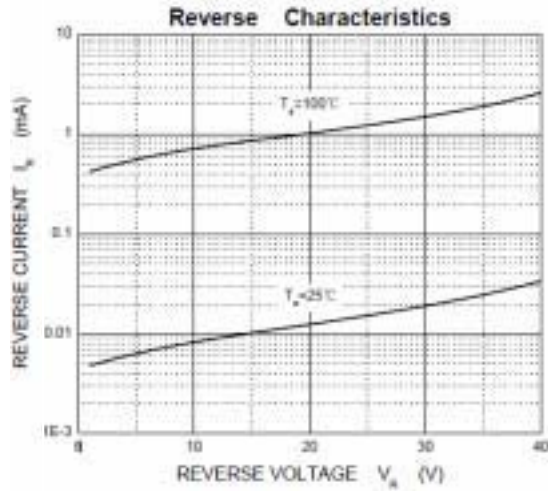
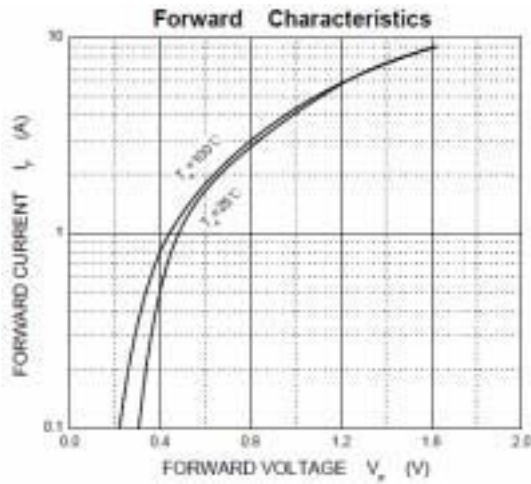
## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

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	0.550	V
		I <sub>F</sub> =3.0A	0.750	0.875	0.900	V
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
Typical Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1MHz	120			pF

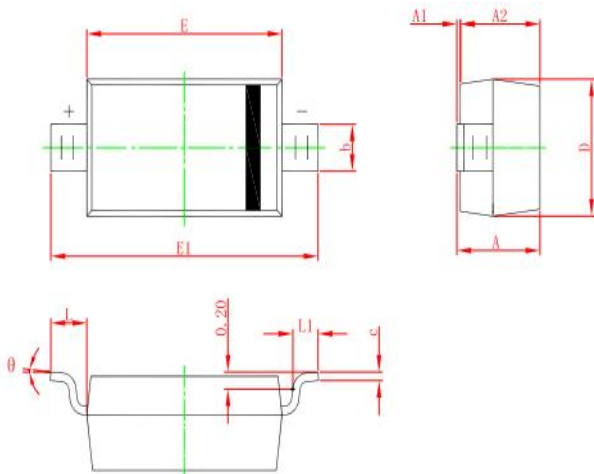
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## Typical Characteristic Curves



## Package Outline Dimensions



## SOD-123

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
$\theta$	0°	8°	0°	8°