

B5817W thru B5819W

Surface Mount Schottky Rectifier
 Reverse Voltage 20V - 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_A=25°C unless otherwise specified)

Parameters	Symbol	B5817W	B5818W	B5819W	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current	I _{FM}	1.0			A
Peak Forward Surge current 8.3 ms Single Half Sinewave	I _{FSM}	9			A
Typical Thermal Resistance Junction to Ambient	R _{θJA}	250			°C/W
Typical Thermal Resistance Junction to Case	R _{θJC}	350			°C/W
Power Dissipation	P _D	500			mW
Operating and Storage Temperature Range	T _{STG}	-50 to +150			°C

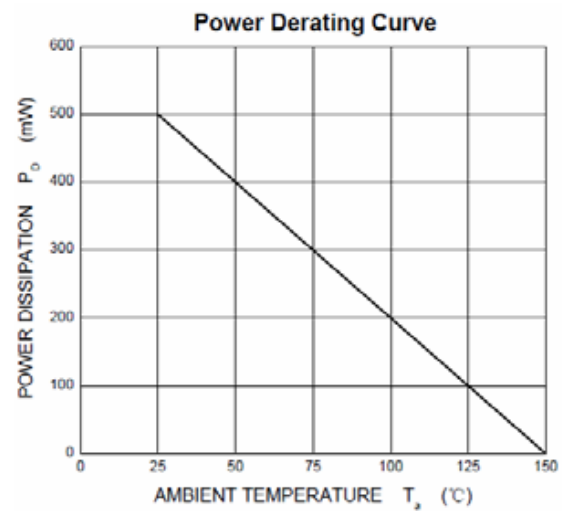
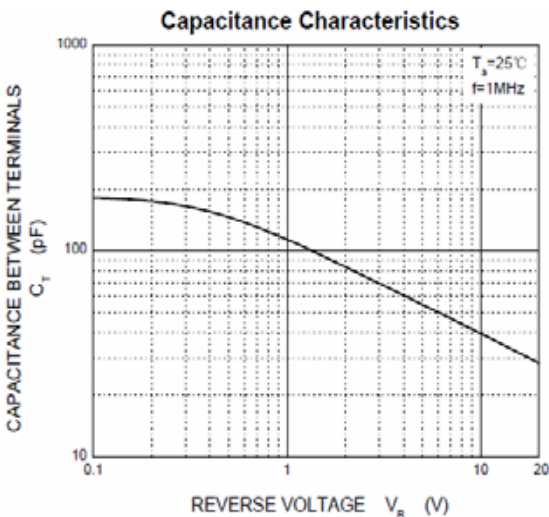
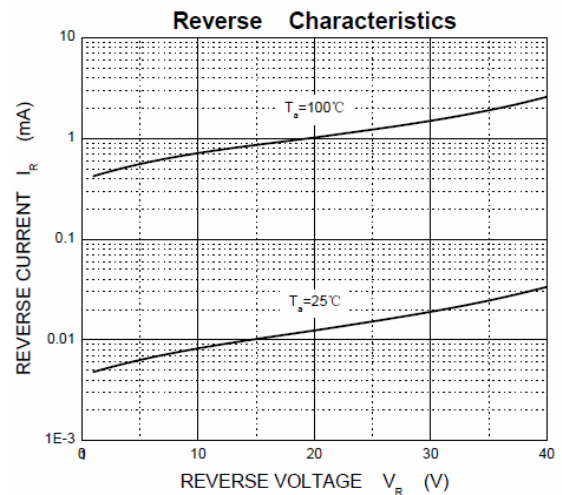
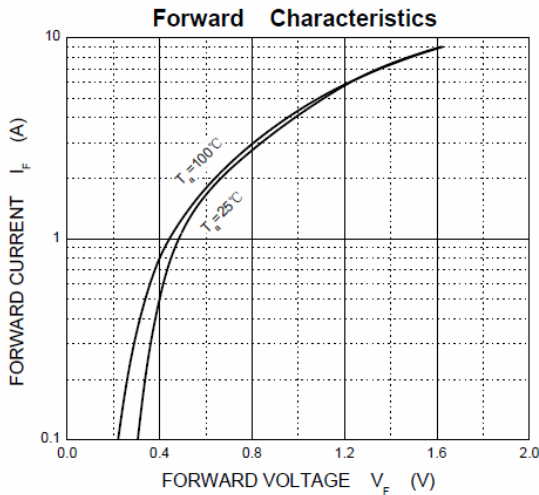
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Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameters	Symbol	Test Conditions	B5817W	B5818W	B5819W	Unit
Maximum Forward Voltage	V _F	I _F =1.0A	0.450	0.550	0.550	V
		I _F =3.0A	0.750	0.875	0.900	V
Maximum Reverse Breakdown Voltage	V _R	I _R =1mA	20	30	40	V
Maximum Reverse Current	I _R	V _R = 20V B5817W V _R =30V B5818W V _R =40V B5819W	1.0			mA
Typical Junction Capacitance	C _J	V _R =4.0V, f=1MHz	120			pF

Typical Characteristic Curves

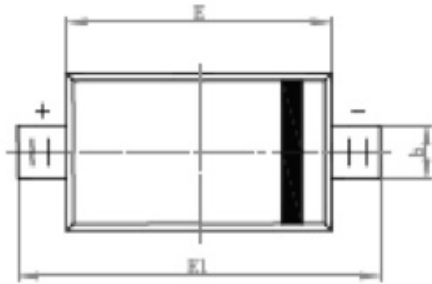


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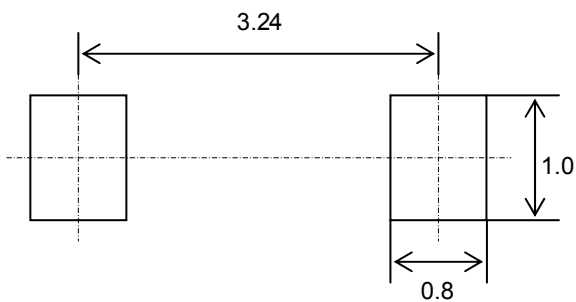
Package Outline Dimensions

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
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.