



THE DATASHEET OF B5817W

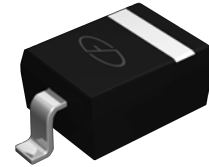


B5817W thru B5819W

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 40V Forward Current 1A

Features

- High current capability
- Low forward voltage drop



SOD-123

Mechanical Data

- Package: SOD-123
- Polarity: marking band denotes cathode
- Epoxy UL: 94V-0

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 8.3ms Single Half Sine-Wave	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

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	B5817W	I _R V _R =20V	1.0			mA	
	B5818W						V _R =30V
	B5819W						
Typical Junction Capacitance	C _J	V _R =4.0V, f=1MHz	120			pF	

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Typical Characteristic Curves

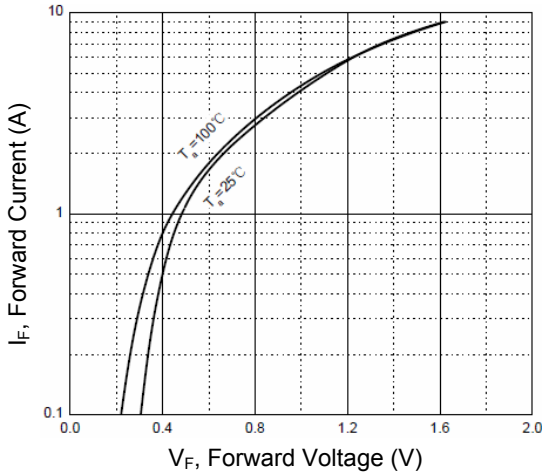


Figure 1. Forward Characteristics

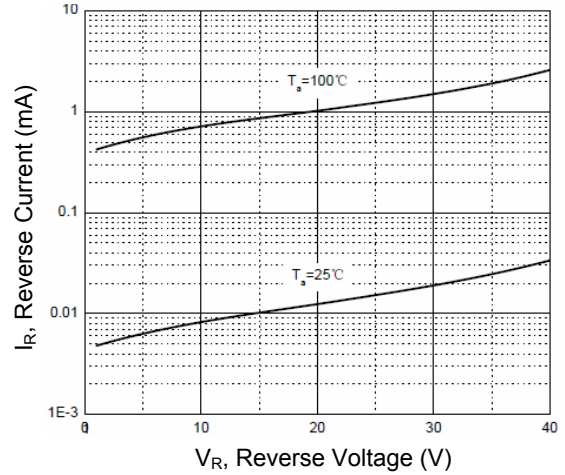


Figure 2. Reverse Characteristics

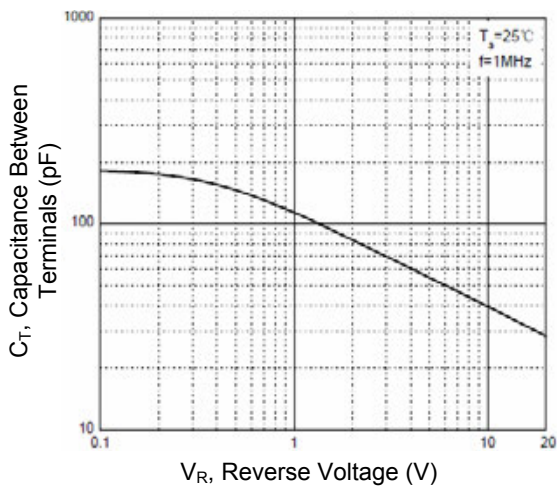


Figure 3. Capacitance Characteristics

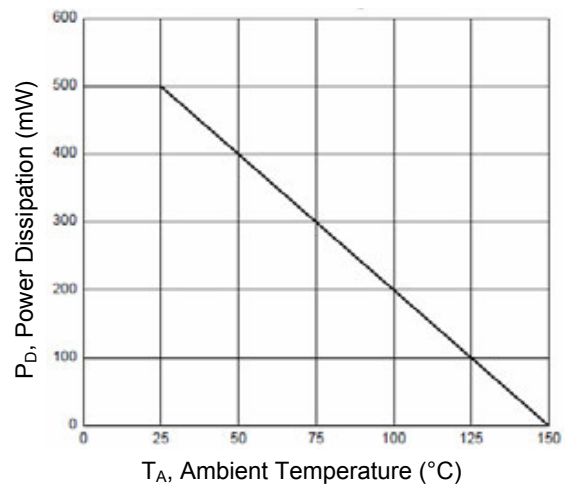
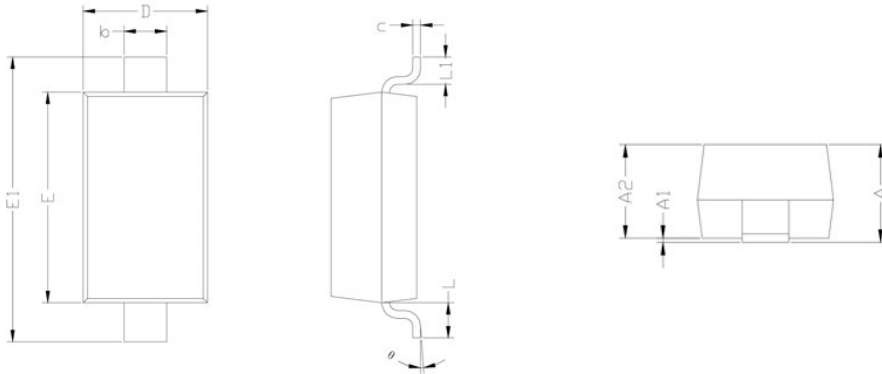


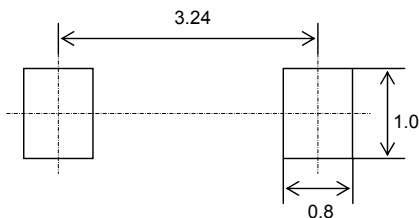
Figure 4. Power Derating Curve

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°

Recommended Pad Layout



Note:


1. Controlling dimension: in millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purposes only.

Order Information

Device	Package	Marking	Carrier	Quantity
B5817W	SOD-123	GSJ	Tape & Reel	3,000 pcs / Reel
B5818W	SOD-123	GSK	Tape & Reel	3,000 pcs / Reel
B5819W	SOD-123	GSL	Tape & Reel	3,000 pcs / Reel

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