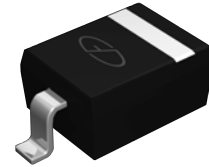


B5817W thru B5819W

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	

B5817W thru B5819W

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

Typical Characteristic Curves

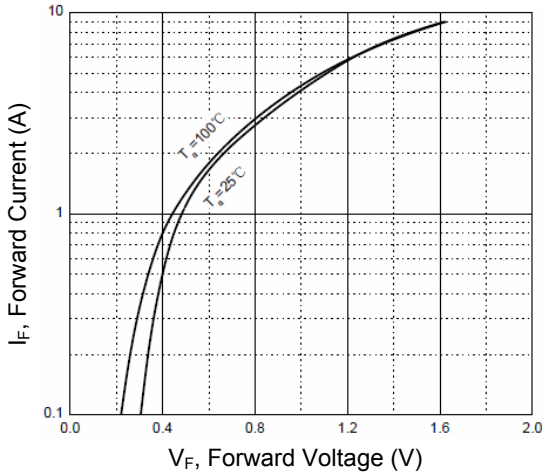


Figure 1. Forward Characteristics

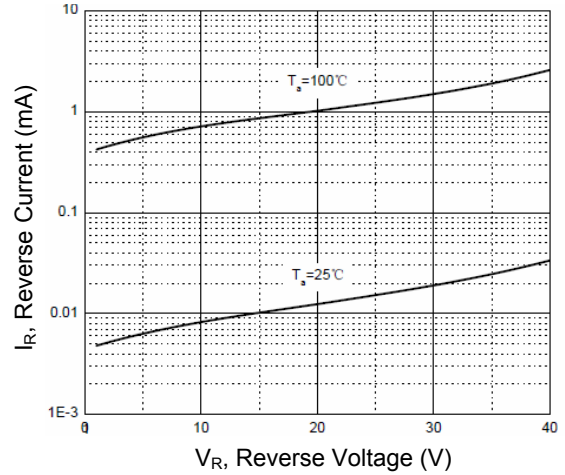


Figure 2. Reverse Characteristics

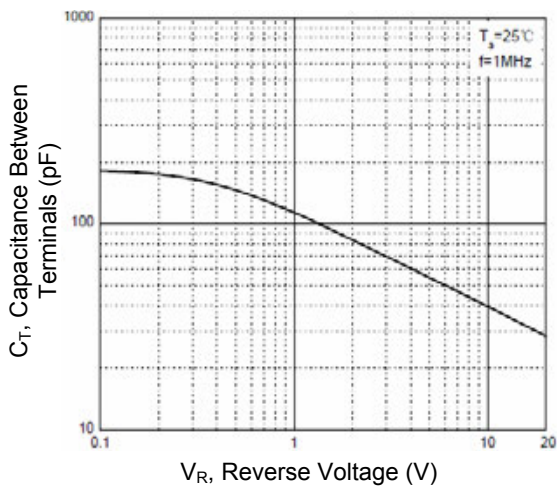


Figure 3. Capacitance Characteristics

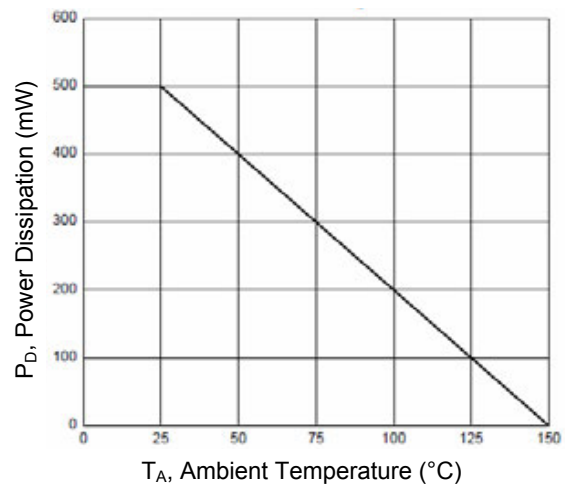
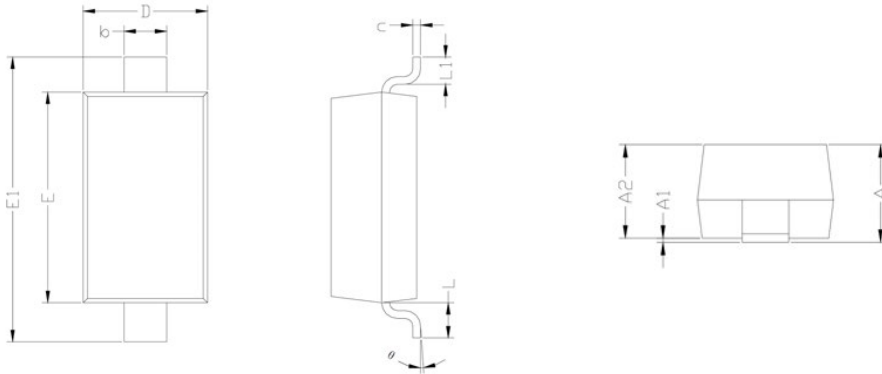


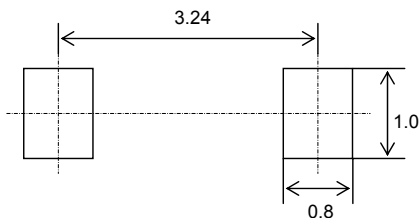
Figure 4. Power Derating Curve

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