GOOD-ARK SEMICONDUCTOR

B5817W thru B5819W

Surface Mount Schottky Rectifier

Reverse Voltage 20 - 40V Forward Current 1A

Features

- High Current Capability
- Low Forward Voltage Drop

Package: SOD-123

RoHS COMPLIANT

Mechanical Data

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

Marking

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

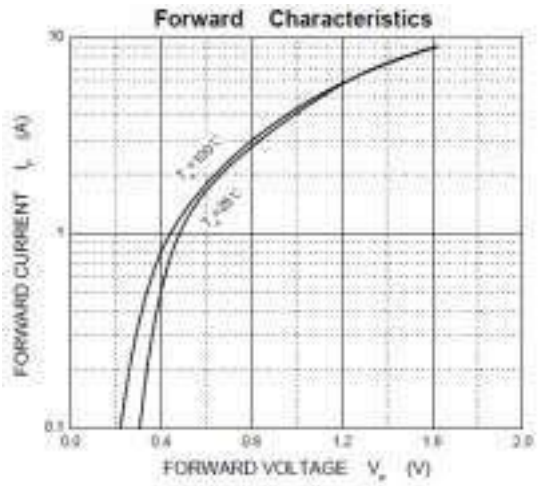
Maximum Ratings and Thermal Characteristics (T_A=25°C unless otherwise specified)

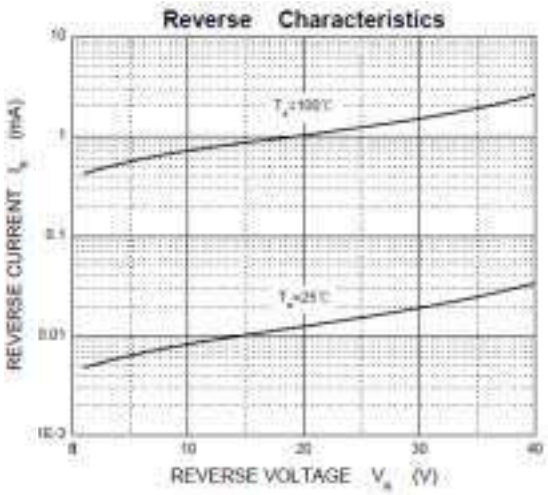
Parameters	Symbol	B5817W	B5818W	B5819W	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current	I_{FM}	1.0			A
Peak Forward Surge current 8.3 ms Single Half Sine-wave	I_{FSM}	9			A
Typical Thermal Resistance Fom Junction to Ambient	$R_{\theta J A}$	250			°C/W
Typical Thermal Resistance From Junction to Case	$R_{\theta J C}$	350			°C/W
Power Dissipation	P_D	5			mW
Operating and Storage Temperature Range	T_{STG}	-50 to +150			°C

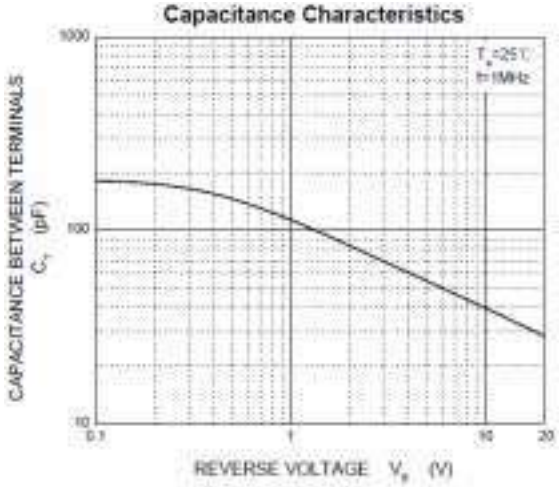
Electrical Characteristics (T_A=25°C unless otherwise specified)

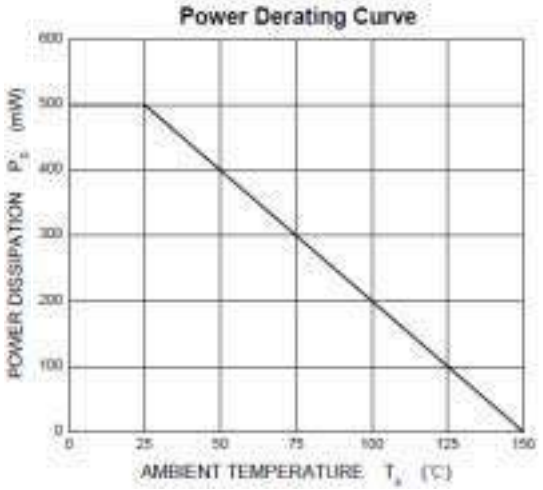
Parameters	Symbol	Test Conditions	B5817W	B5818W	B5819W	Unit
Maximum Forward Voltage	V_F	I_F=1.0A	0.450	0.550	0.550	V
		I_F=3.0A	0.750	0.875	0.900	V
Maximum Reverse Breakdown Voltage	V_R	I_R=1mA	20	30	40	V
Maximum Reverse Current	I_R	V_R=20V B5817W V_R=30V B5818W V_R=40V B5819W	1.0			mA
Typical Junction Capacitance	C_J	V_R=4.0V, f=1MHz	120			pF

Typical Characteristic Curves



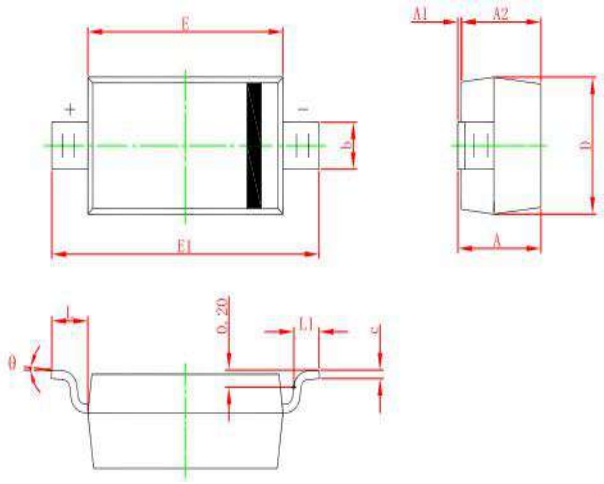






Package Outline Dimensions

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°