GSB5819WL

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

Features

- High breakdown voltage
- Low turn-on voltage
- Guard ring construction for transient protection

SOD-123

Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	I_{FM}	1.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave	I_{FSM}	30	A
Power Dissipation	P_D	500	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	250	°C/W
Junction Temperature Range	T_J	+125	°C
Storage Temperature Range	T_{STG}	-50 to +150	°C

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

Parameter	Symbol	Test Conditions	Value	Unit
Maximum Reverse Breakdown Voltage	V_R	I_R=1mA	40	V
Maximum Reverse Current	I_R	V_R=40V	1.0	mA
Maximum Forward Voltage	V_F	I_F=1.0A	0.45	V
Typical Junction Capacitance	C_J	V_R=4.0V, f=1MHz	120	pF

Typical Electrical and Thermal Characteristic Curves

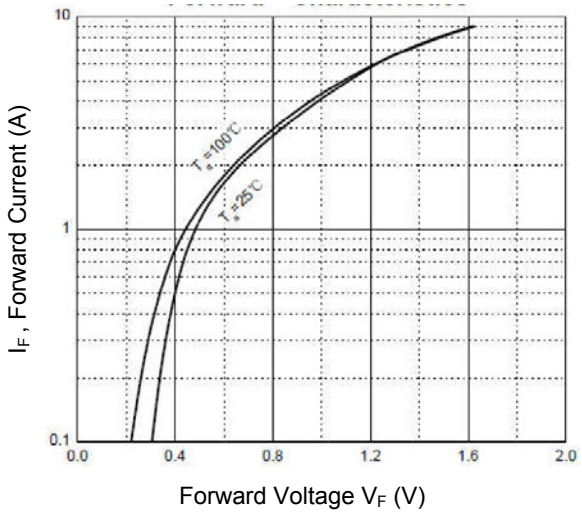

Figure 1. Forward Characteristics

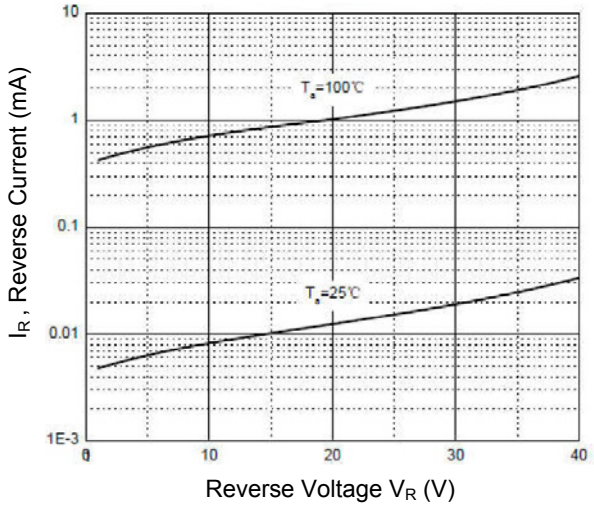

Figure 2. Reverse Characteristics

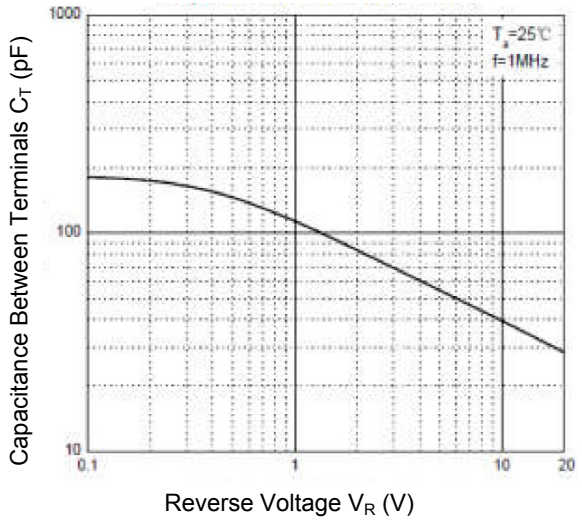

Figure 3. Capacitance Characteristics

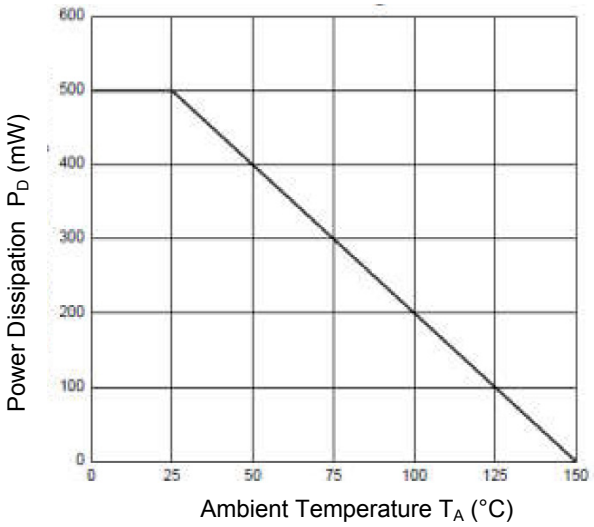

Figure 4. Power Derating Curve

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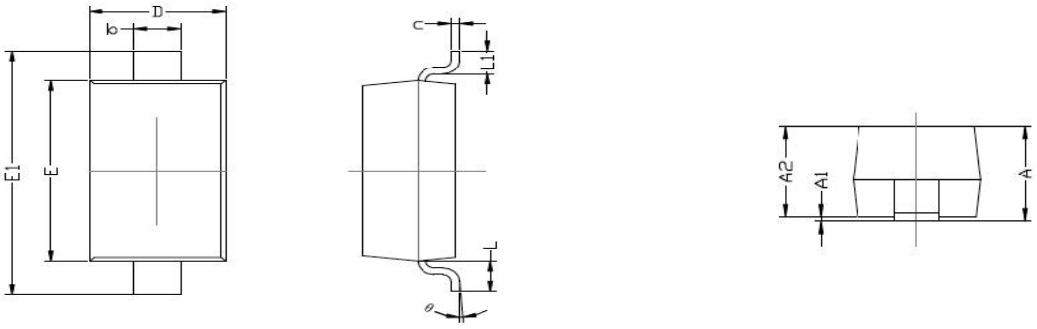
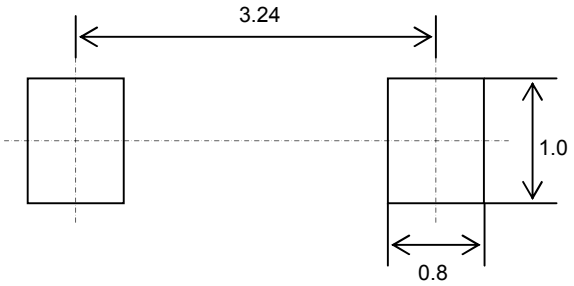
Package Outline Dimensions



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	Carrier	Quantity	Marking
GSB5819WL	SOD-123	Tape & Reel	3,000pcs / Reel	C19