SOD-323 Plastic-Encapsulate Schottky Barrier Diode

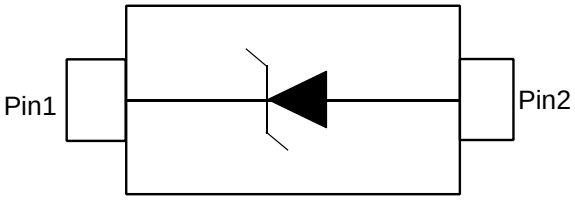
Description

General application Schottky Barrier Diode, encapsulated in a SOD323 leadless ultra small, Surface-Mounted Device （SMD）plastic package.

Features

- Average forward current: $I_{F(AV)}$: 1A
- Reverse voltage: V_R ≥ 40 V
- Low forward voltage: V_F ≤ 600 mV @1A
- Low reverse current: I_R ≤ 100uA@40V
- High reliability

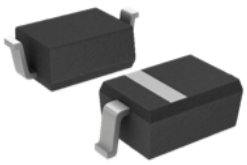
Schematic and Pin Configuration



SOD-323 (Top View)

Circuit Schematic

Package



SOD-323(Bottom View)

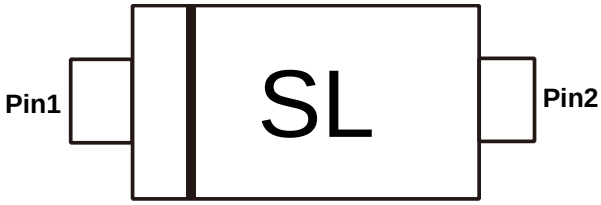
Mechanical Characteristics

- SOD-323 Small Outline Plastic Package
- Level 1 moisture sensitivity per J-STD-020
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound
- We declare that the material of product compliance with RoHS requirements and Halogen Free

Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply(SMPS)
- Reverse polarity protection
- Low power consumption application

Marking Information



SL = Device Marking Code
Bar denotes cathode

Ordering Information

Part Number	Shipping	Reel Size
B5819WS	3000/Tape &Reel	7 inch

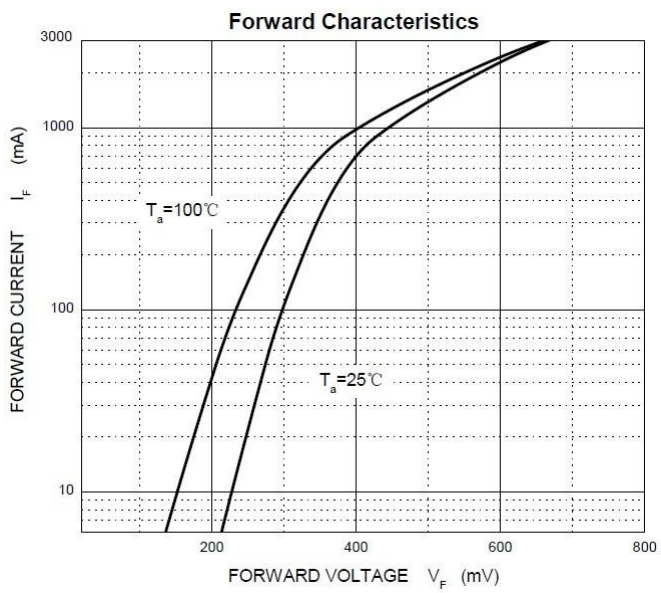
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

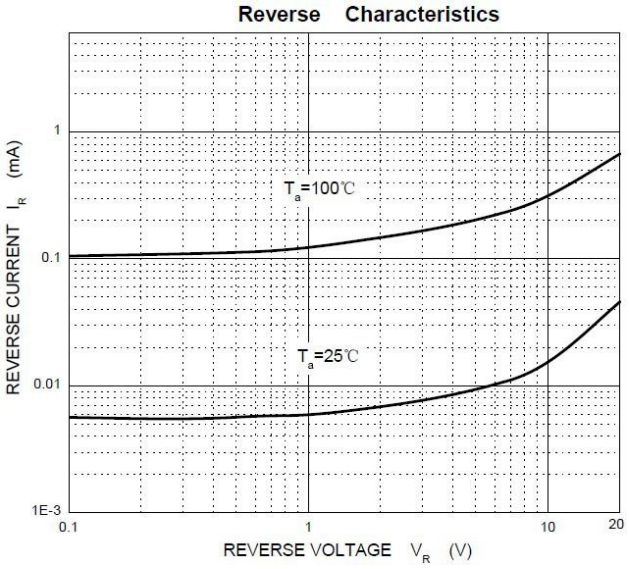
Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current	I_{FM}	1.0	A
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	9	A
Typical thermal resistance	$R_{\theta JA}$	400	℃/W
Power Dissipation	PD	250	mW
Operating junction temperature	T_J	125	℃
Storage temperature	T_{STG}	-50-+150	℃

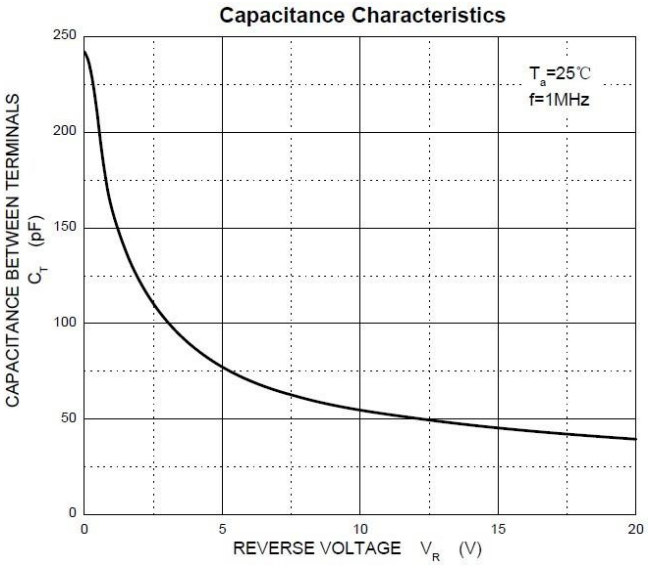
Electrical Characteristics (T_A=25°C unless otherwise specified)

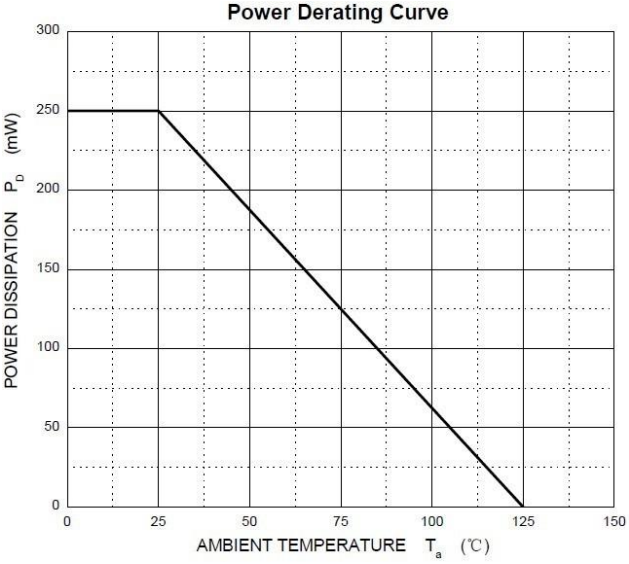
Parameter	Symbol	Test conditions	Value	Unit
Maximum forward voltage	V_F	I_F = 1.0A I_F = 3.0A	0.6 0.9	V
Maximum reverse breakdown voltage	V_R	I_R = 1mA	40	V
Maximum reverse current	I_R	V_R = 40V	100	uA
Type junction capacitance	C_J	V_R=4.0V,f = 1MHz	120	pF

Typical Performance Characteristics





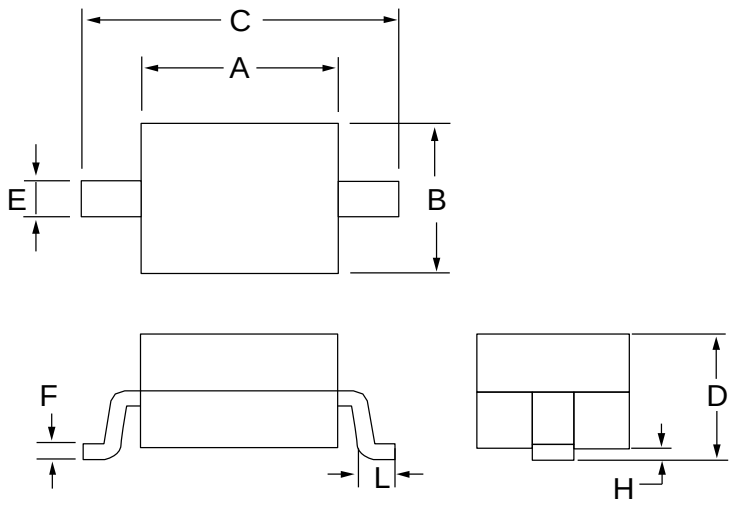




100

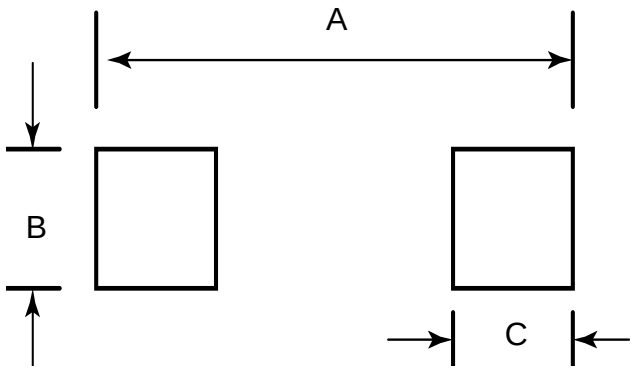
90

SOD-323 Package Outline Drawing



SYM	DIMENSIONS				
	MILLIMETERS			INCHES	
	MIN	NOM	MAX	MIN	MAX
A	1.50	1.65	1.80	0.060	0.071
B	1.20	1.30	1.40	0.045	0.054
C	2.30	2.50	2.70	0.090	0.107
D	-		1.10	-	0.043
E	0.30		0.40	0.012	0.016
F	0.10		0.25	0.004	0.010
L	0.20		0.40	0.008	0.016
H	-		0.10	-	0.004

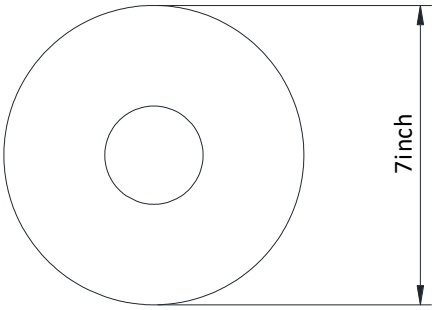
Suggested Land Pattern



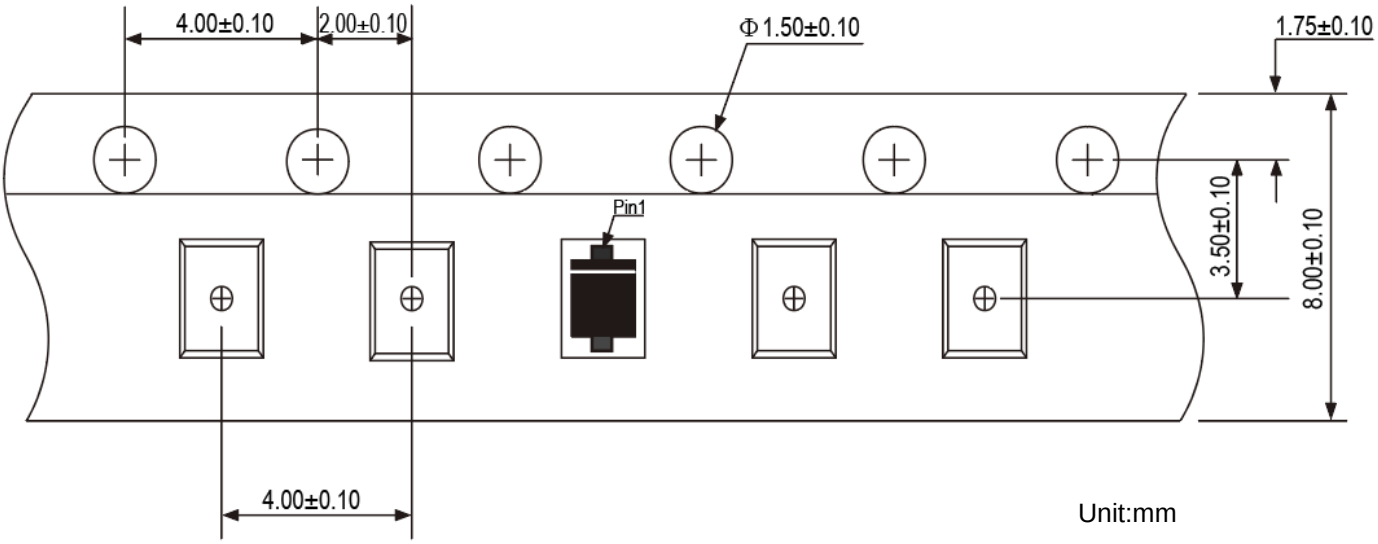
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031

TAPE AND REEL INFORMATION

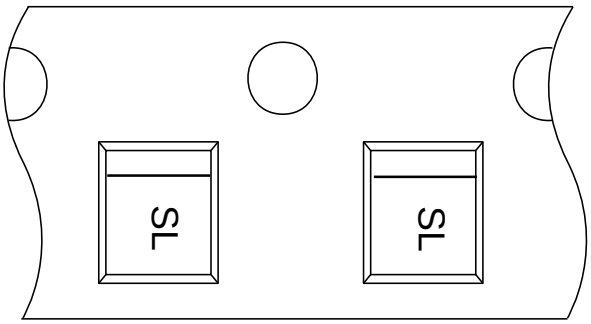
Reel Dimensions



Tape Dimensions



Unit:mm



User Direction of Feed

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