

SOD-523 Plastic-Encapsulate Schottky Barrier Diode

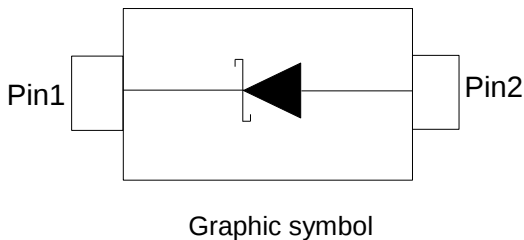
Description

General Application Schottky barrier rectifier, encapsulated in a SOD523 leadless ultra small Surface-Mounted Device (SMD) plastic package.

Features

- Average forward current: $I_F(AV) \leq 200mA$
- Reverse voltage: $V_R \geq 30 V$
- Low forward voltage: $V_F \leq 600 mV @ 200mA$
- Low reverse current: $I_R \leq 2\mu A @ 30V$
- High reliability

Schematic and Pin Configuration



Package



SOD-523(Bottom View)

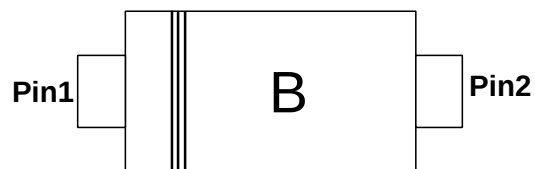
Mechanical Characteristics

- SOD-523 Small Outline Plastic Package
- Level 1 moisture sensitivity per J-STD-020
- Case Material: "Green" Molding Compound
- Lead Finish: Matte Tin
- We declare that the material of product compliance with RoHS requirements and Halogen Free

Applications

- Low Voltage Rectification
- witch Mode Power Supply(SMPS)
- Inverse Polarity Protection
- Low Power Consumption Applications

Marking Information



B = Device Marking Code
Bar denotes cathode

Ordering Information

Part Number	Packaging	Package
PSB520S-30	3000/Tape & Reel	SOD523

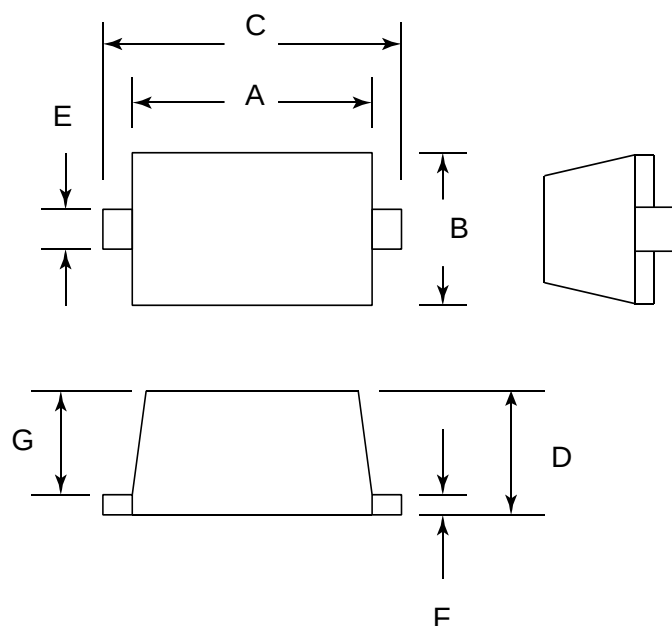
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	150	mW
DC reverse voltage	V_R	30	V
Average rectifier forward current	I_O	200	mA
Forward current surge peak(60Hz•1cyc)	I_{FSM}	1	A
Junction temperature	T_J	125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-40 to + 125	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

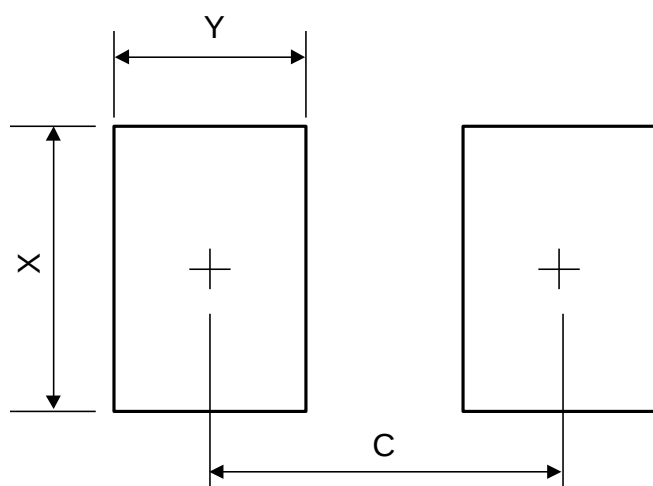
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	-	-	0.6	V	$I_F = 200\text{mA}$
Reverse current	I_R	-	-	1	μA	$V_R = 10\text{V}$
		-	-	2	μA	$V_R = 30\text{V}$
Reverse Recovery Time	T_{rr}	-	-	5.0	nS	$I_F=I_R=100\text{mA}$ $I_{R(REC)}=1.0\text{mA}$

SOD523 Package Outline Drawing



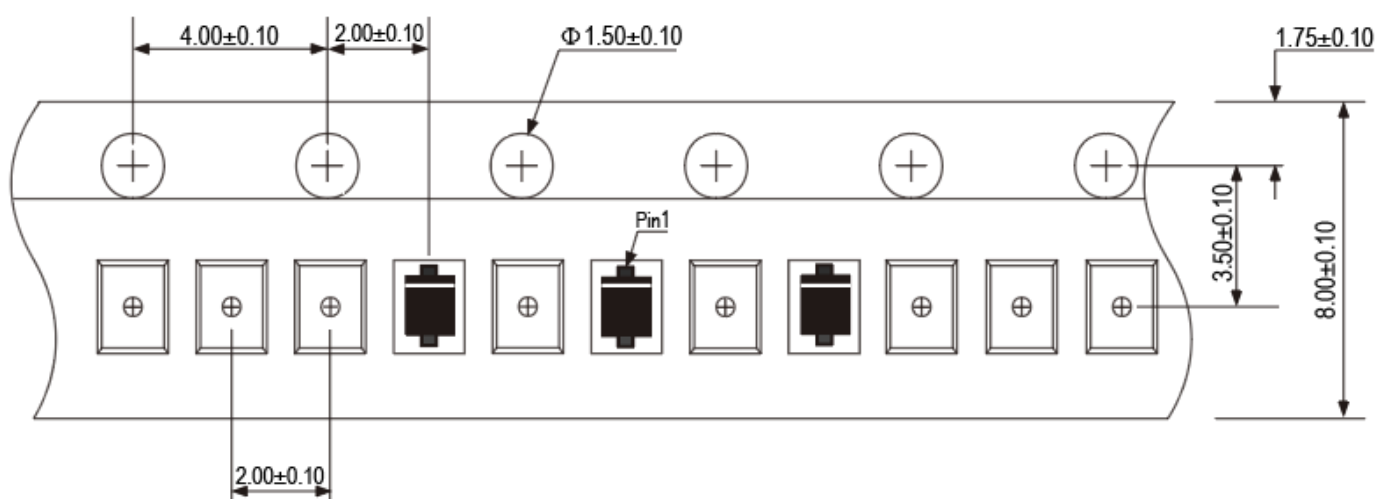
SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	1.50	1.70	0.059	0.067
D	0.50	0.70	0.020	0.028
E	0.25	0.35	0.010	0.014
F	0.10	0.20	0.004	0.008
G	0.50	0.70	0.020	0.028

Suggested Land Pattern

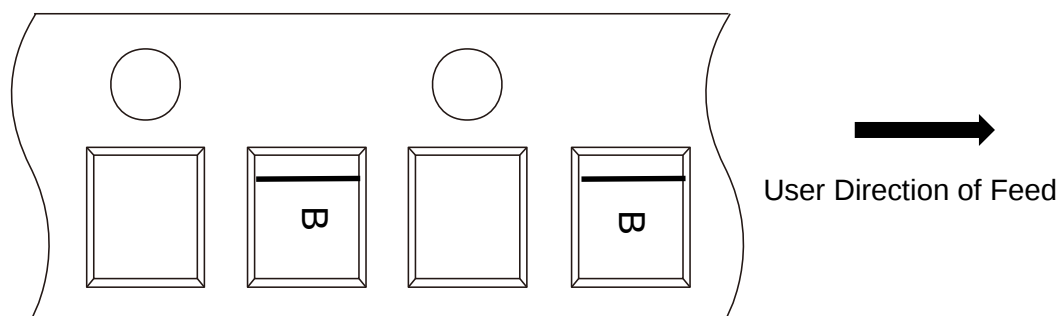


SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	1.42	0.056
X	0.70	0.028
Y	0.60	0.024

Reel Dimensions



Unit:mm



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