

SOD-523 Plastic-Encapsulate Schottky Barrier Diode

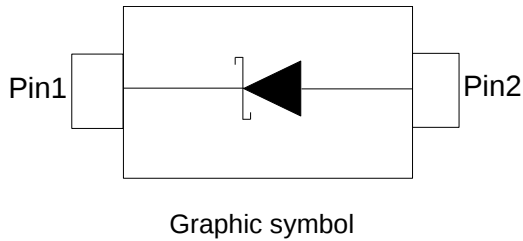
Description

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

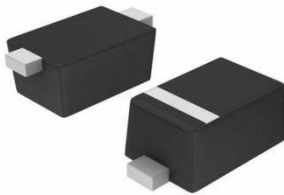
Features

- Average forward current: $I_F(AV) \leq 200mA$
- Reverse voltage: $V_R \geq 40 V$
- Low forward voltage: $V_F \leq 580 mV @200mA$
- Low reverse current: $I_R \leq 10\mu A @40V$
- High reliability

Schematic and Pin Configuration



Package



SOD-523(Bottom View))

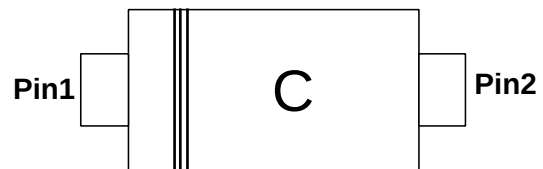
Mechanical Characteristics

- 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 compliancewith RoHS requirements and Halogen Free

Applications

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

Marking Information



C = Device Marking Code
Bar denotes cathode

Ordering Information

Part Number	Packaging	Package
PSB521S-40	3000/Tape & Reel	SOD523

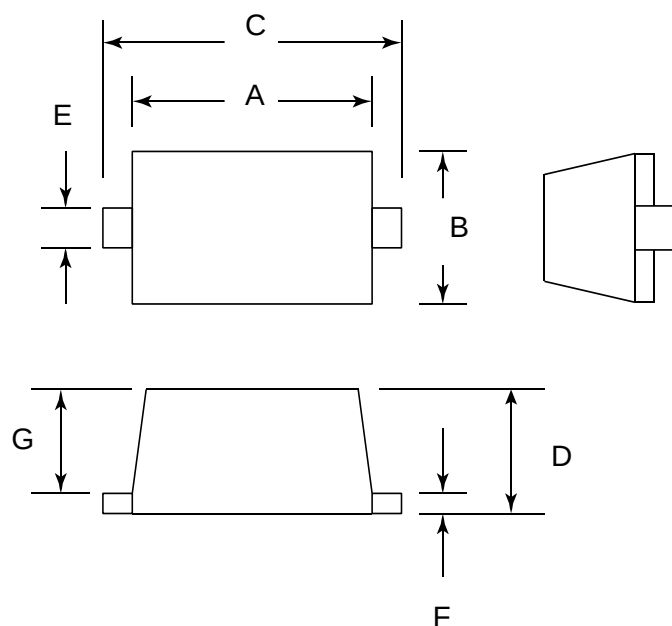
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
DC reverse voltage	V _R	40	V
Average rectifier forward current	I _O	200	mA
Forward current surge peak(60Hz•1cyc)	I _{FSM}	1	A
Junction temperature	T _J	125	°C
Storage temperature	T _{STG}	-40 to + 125	°C

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

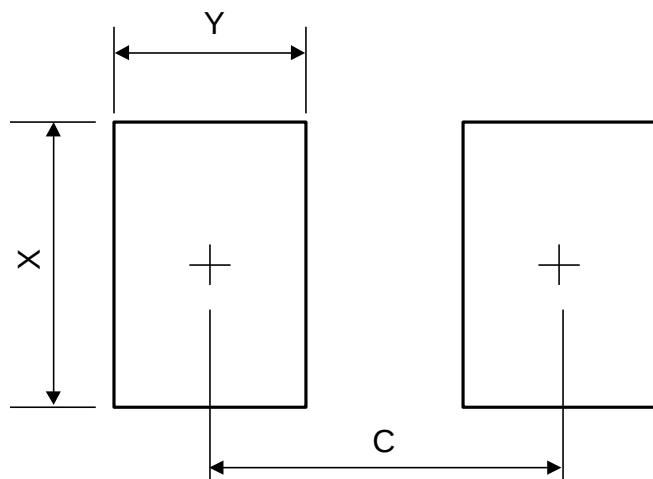
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V _F	-	-	0.58	V	I _F = 200mA
Reverse current	I _R	-	-	5	μA	V _R = 10V
		-	-	10	μA	V _R = 40V
Reverse Recovery Time	T _{rr}	-	-	5.0	nS	I _F =I _R =10mA I _{R(REC)} =1.0mA

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

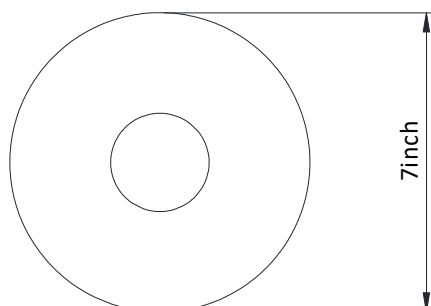
Suggested Land Pattern



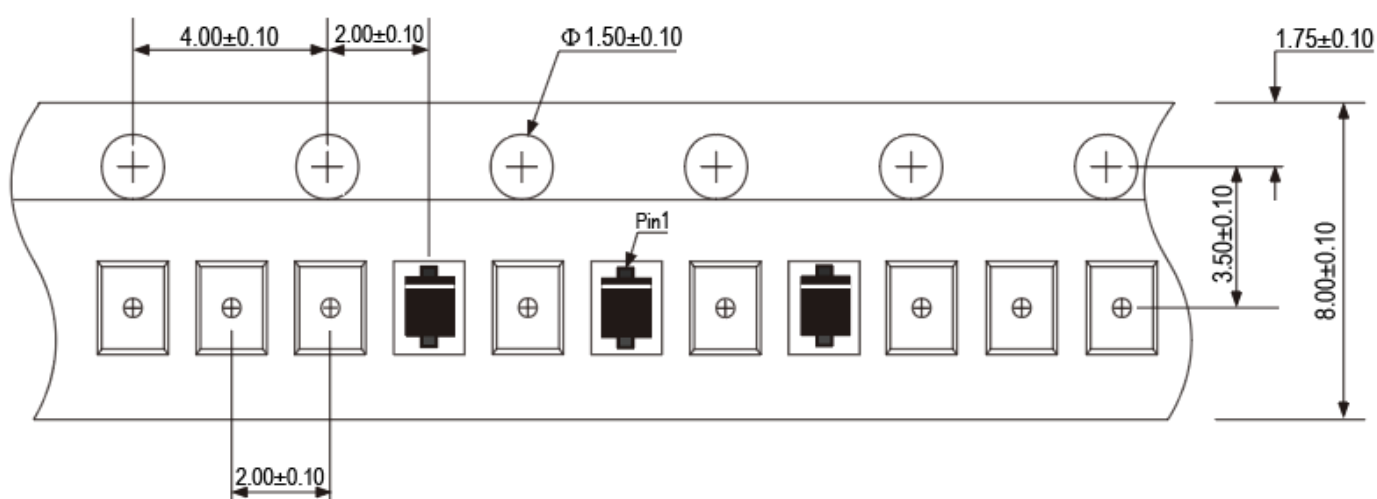
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	1.42	0.056
X	0.70	0.028
Y	0.60	0.024

TAPE AND REEL INFORMATION

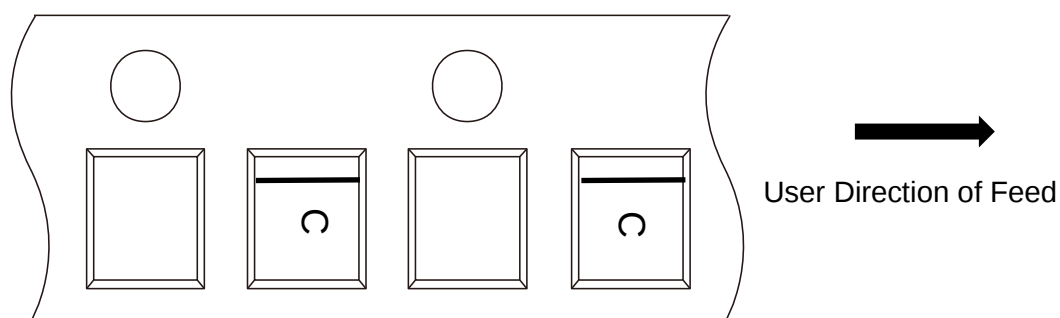
Reel Dimensions



Tape Dimensions



Unit:mm



IMPORTANT NOTICE

The information given in this document is believed to be accurate and reliable but shall in no event be regarded as a guarantee of conditions or characteristics. PN-Silicon assumes no responsibility for any errors in this document, or for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of PN-Silicon.

The product listed in this document are designed to be used with ordinary electronic equipment or devices and are not authorized to be used with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, automotive and other safety device.)

The  logo is a registered trademark of PN-Silicon co., ltd which reserves the right to make changes to the product or this document at any time without notice. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. PN-Silicon makes no warranty, representation or guarantee, express or implied, regarding the suitability of its products for any particular purpose. All rights reserved.