

SOD-323 Schottky Barrier Diode

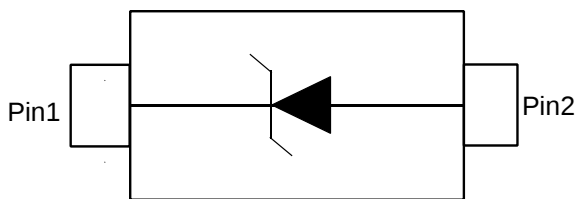
Description

General Application Schottky barrier rectifier, encapsulated in a SOD323 leadless ultra small, Surface-Mounted Device (SMD) plastic package.

Features

- Average forward current: 0.8A
- Reverse voltage: $V_R \geq 40\text{ V}$
- Low forward voltage: $V_F \leq 600\text{ mV @}0.5\text{A}$
- Low reverse current: $I_R \leq 20\text{ uA @}40\text{V}$
- Leadless ultra small SMD plastic package
- High reliability

Schematic and Pin Configuration



SOD-323 (Top View)

Circuit Schematic

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



SS = Device Marking Code

Bar denotes cathode

Package



SOD-323(Bottom View)

Ordering Information

Part Number	Shipping	Reel Size
PSB40V08D3	3000/Tape & Reel	7 inch

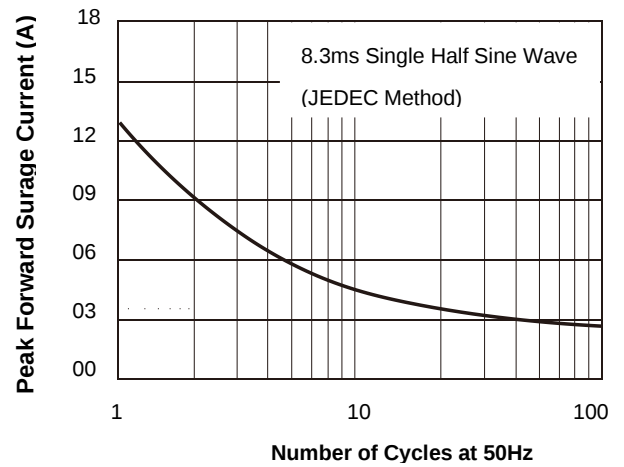
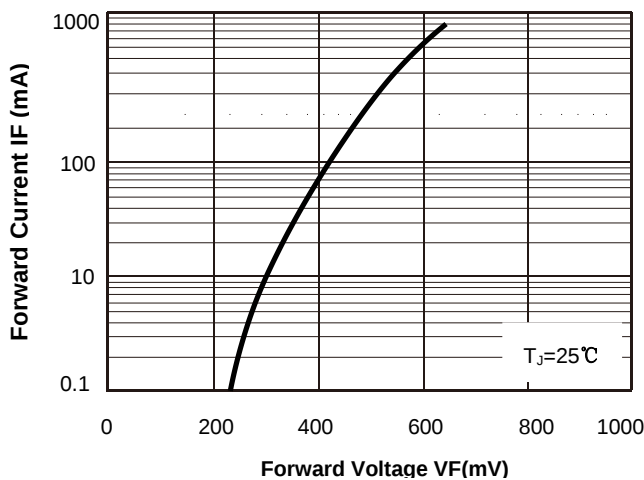
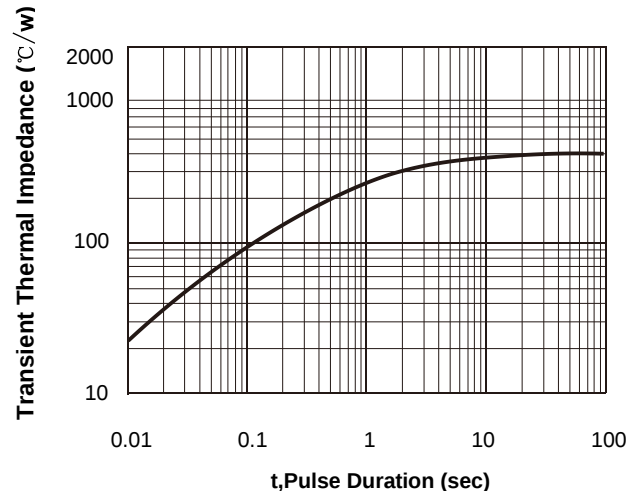
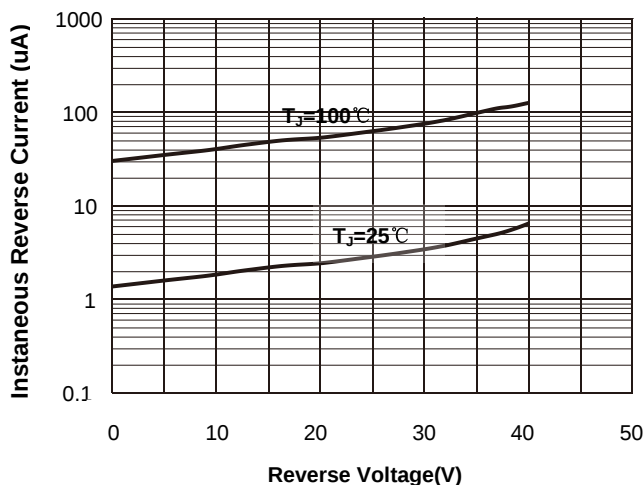
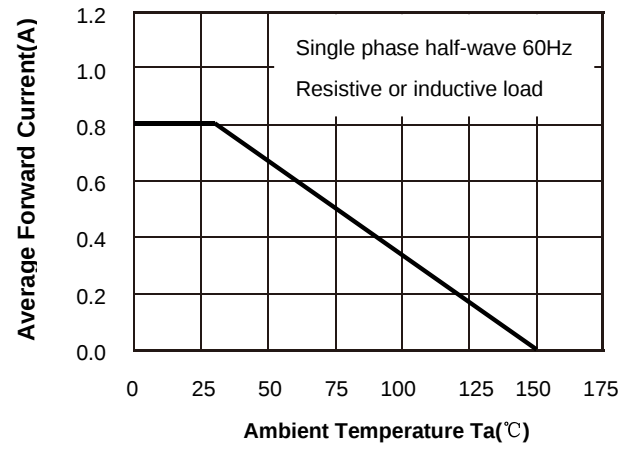
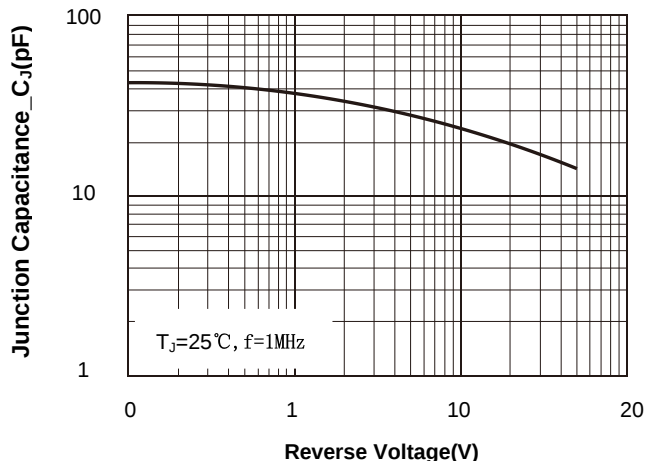
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Average rectified forward current	I_O	800	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	14	A
Power Dissipation	P_D	500	mW
junction temperature	T_J	$-40 \sim +125$	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$

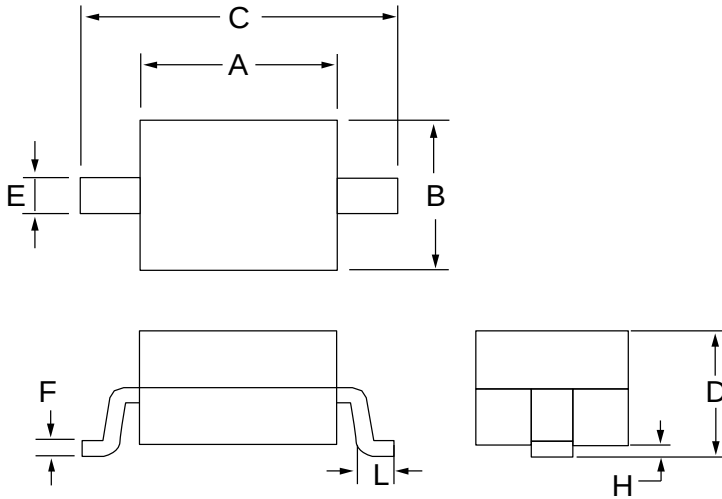
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Condition
Reverse voltage	V_{BR}	40	--	--	V	$I_R=1\text{mA}$
Reverse current	I_R	--	--	20	μA	$V_R=40\text{V}$
Forward voltage	V_F	--	--	0.59	V	$I_F=0.5\text{A}$
Capacitance between terminals	C_T	--	44	--	pF	$V_R=0\text{V}, f=1\text{MHz}$

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

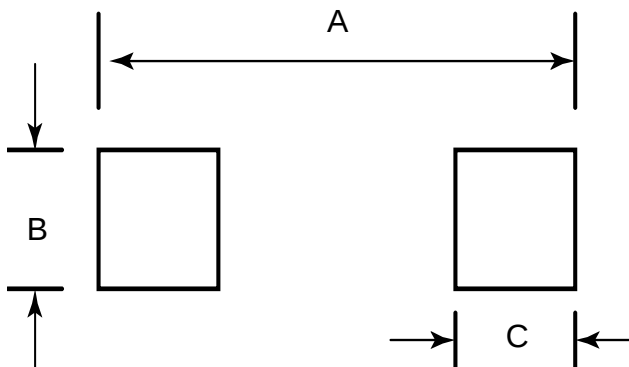


SOD-323 Package Outline Drawing



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

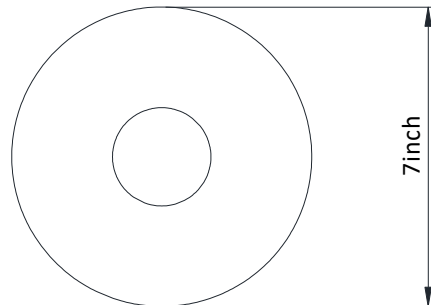
Suggested Land Pattern



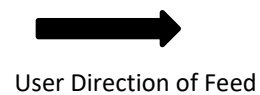
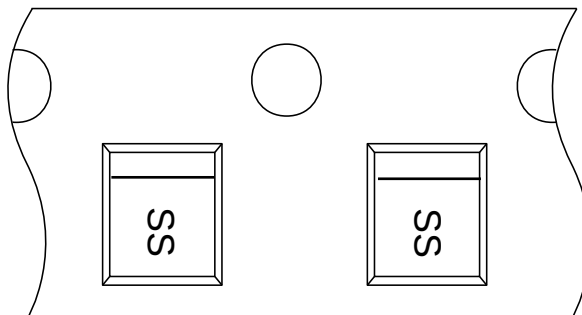
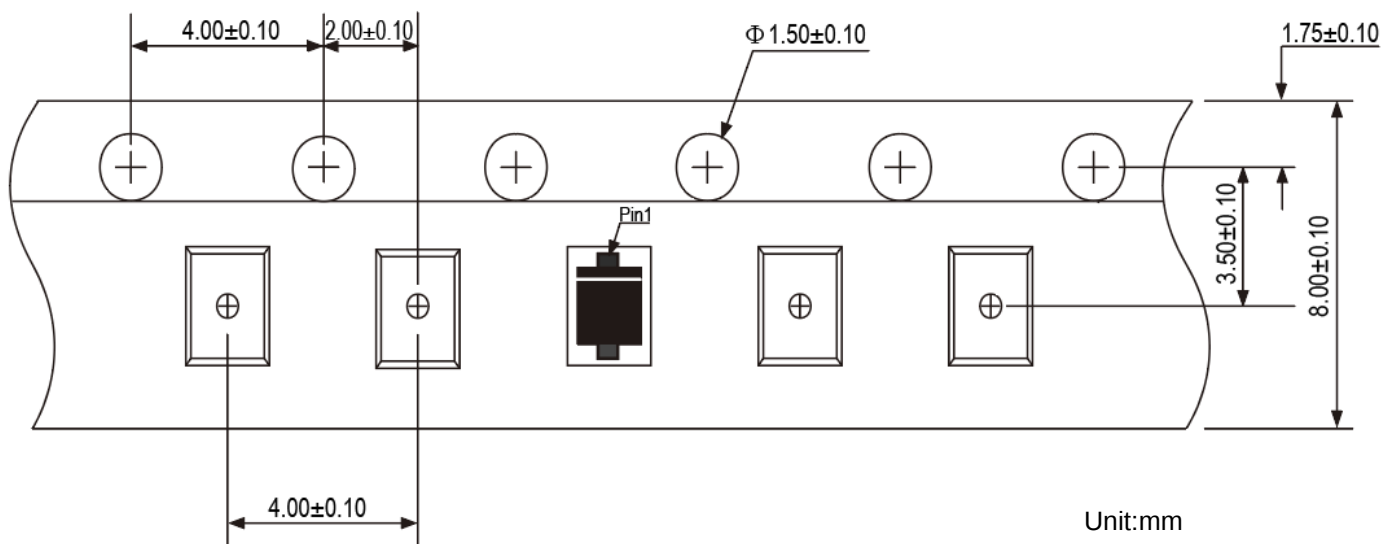
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031

TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



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