

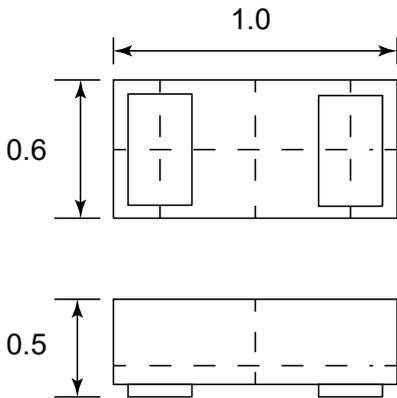
Description

General Application Schottky barrier rectifier, encapsulated in a DFN1006-2 leadless ultra small Surface-Mounted Device (SMD) plastic package.

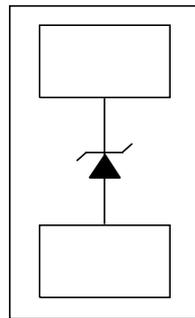
Features

- Average forward current: $I_F(AV) \leq 200 \text{ mA}$
- Reverse voltage: $V_R \leq 40 \text{ V}$
- Low forward voltage: $V_F \leq 350 \text{ mV @}10\text{mA}$
- Low reverse current: $I_R \leq 10 \text{ }\mu\text{A}$
- Leadless ultra small SMD plastic package
- We declare that the material of product compliance with RoHS requirements and Halogen Free

Dimensions and Pin Configuration



Package Dimensions



Circuit and Pin Schematic

Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications
- Moisture Sensitivity: Level 1 per J-STD-020

Marking Information



F = Device Marking Code

X = Internal code

Ordering Information

Part Number	Shipping	Reel Size
PSB521BS-40	10000/Tape & Reel	7 inch

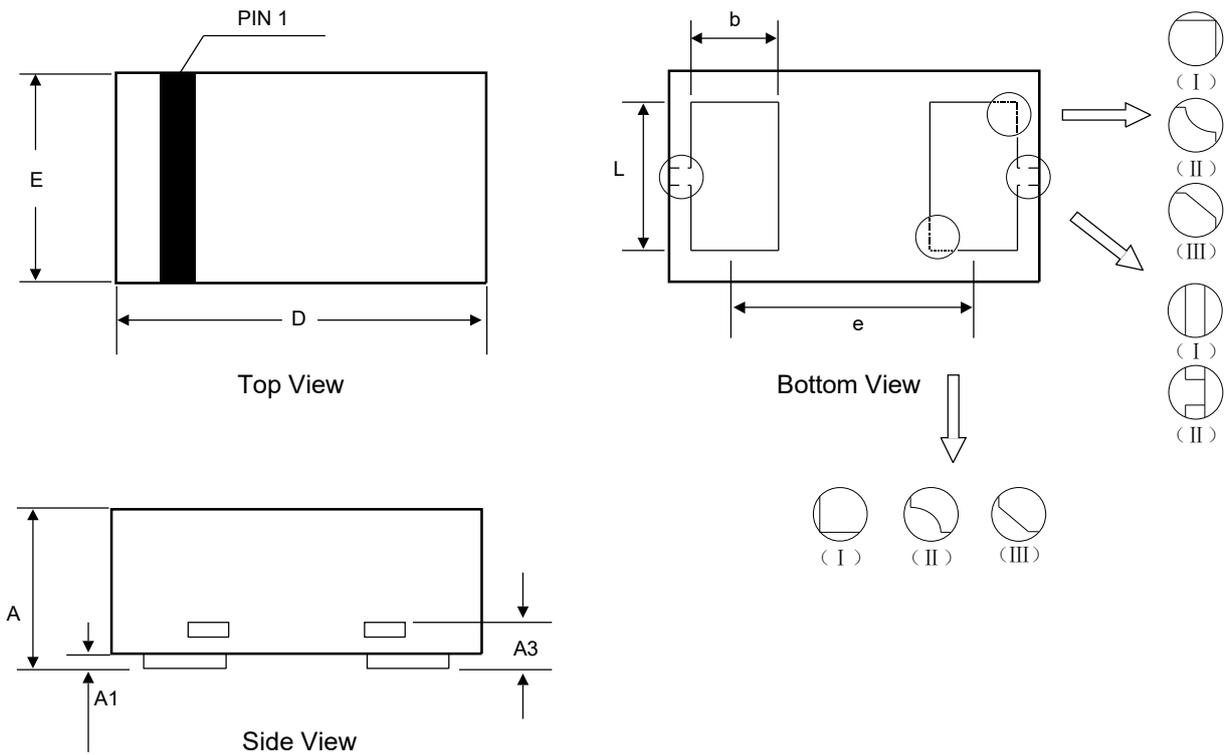
Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
DC reverse voltage	V_{RM}	40	V
Average rectifier forward current	I_o	200	mA
Forward current surge peak(60Hz * 1cyc)	I_{FSM}	500	mA
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)

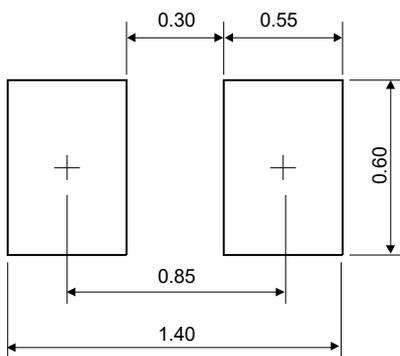
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V_F			0.35 0.40	V	($I_F=10\text{mA}$) ($I_F=20\text{mA}$)
Reverse Current	I_R			10	μA	$V_R=10\text{V}$

DFN1006-2 Package Outline Drawing



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.340	0.450	0.530
A1	0.000	0.020	0.050
A3	0.125 Ref.		
D	0.950	1.000	1.075
E	0.490	0.600	0.675
b	0.200	0.250	0.300
L	0.450	0.500	0.550
e	0.650 BSC		

Recommended PCB Layout (Unit: mm)

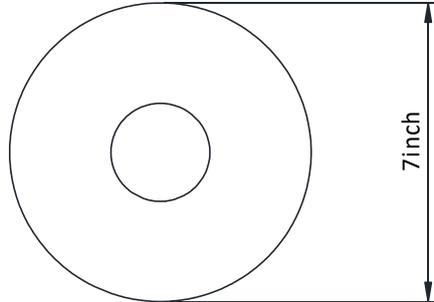


Notes:

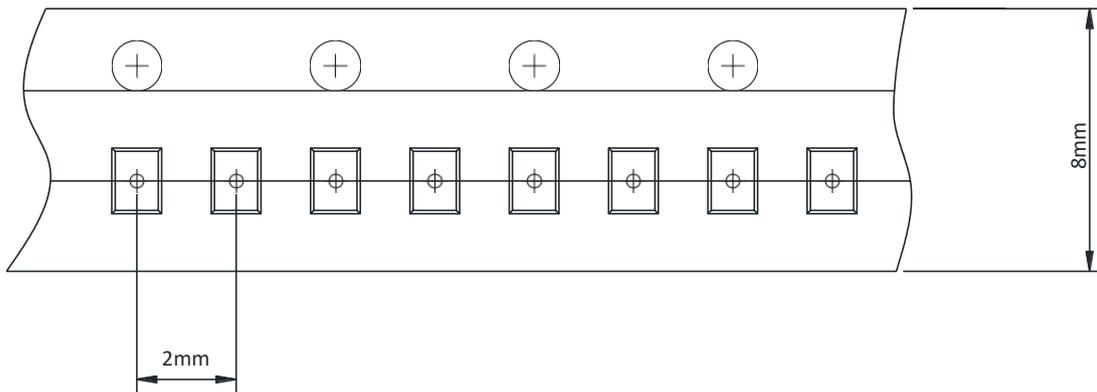
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



Quadrant Assignments For PIN1 Orientation In Tape

