

DFN1006-2 Plastic-Encapsulate Schottky Barrier Diode

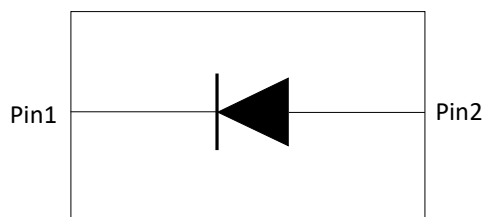
Description

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

Features

- Average forward current: $I_{F(AV)} : 200 \text{ mA}$
- Reverse voltage: $V_R \geq 40 \text{ V}$
- Low forward voltage: $V_F \leq 600 \text{ mV @ } 200\text{mA}$
- Low reverse current: $I_R \leq 10 \text{ } \mu\text{A @ } 40\text{V}$
- High reliability

Schematic and Pin Configuration



Graphic symbol

Package



DFN1006-2(Bottom View)

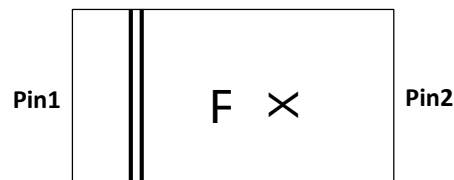
Mechanical Characteristics

- DFN1006-2 Small Outline Plastic Package
- Level 1 moisture sensitivity per J-STD-020
- 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 applications

Marking Information



F = Device Marking Code

X = Internal code

Bar denotes Cathode

Ordering Information

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

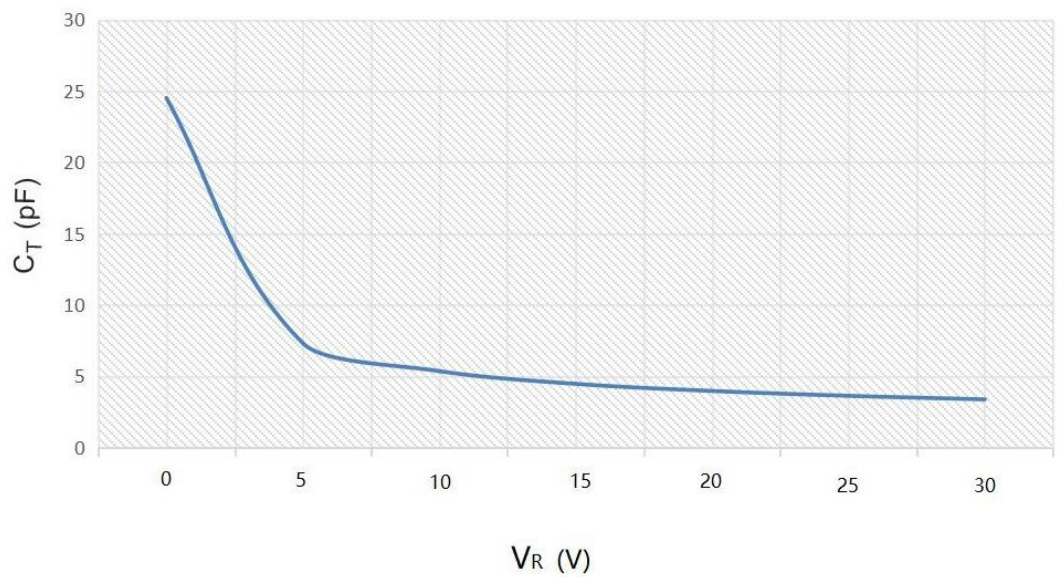
Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	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	$^{\circ}\text{C}$

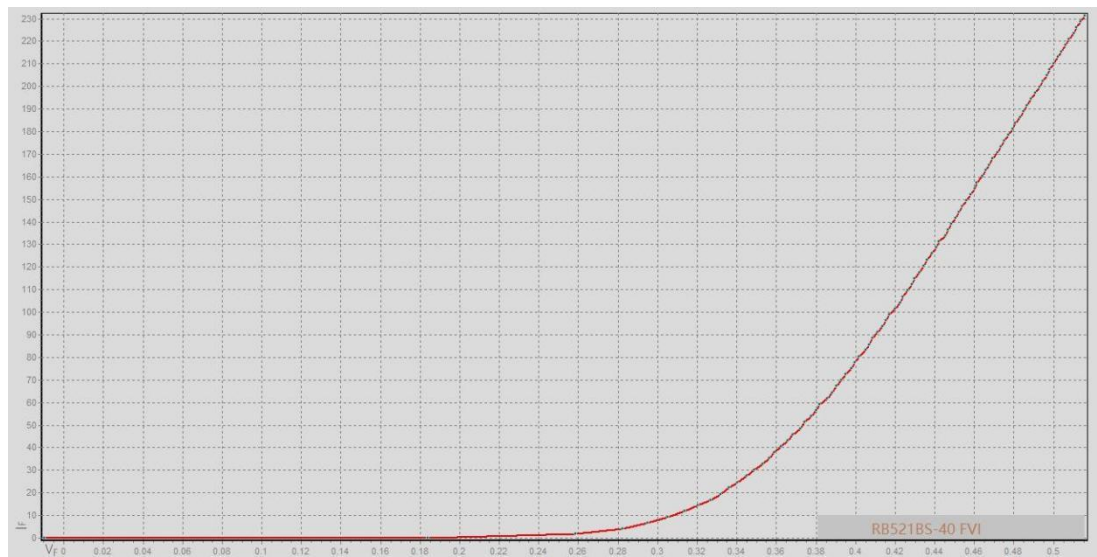
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V_F	-	-	0.35	V	($I_F=10\text{mA}$)
		-	-	0.60	V	($I_F=200\text{mA}$)
Reverse Current	I_R	-	-	2.0	μA	$V_R=10\text{V}$
		-	-	10.0	μA	$V_R=40\text{V}$
Capacitance between terminals	C_T	-	25	-	pF	$V_R=0\text{V}, f=1\text{MHz}$

Typical Performance Characteristics

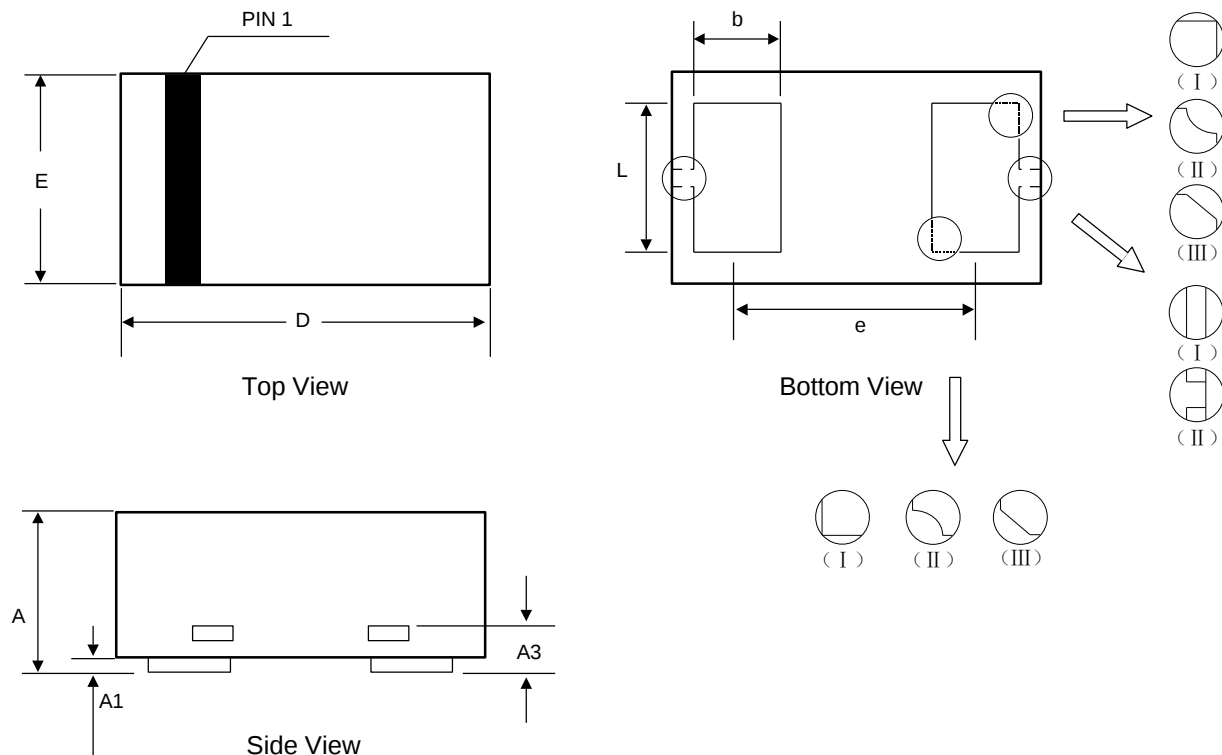


V_T VS V_R



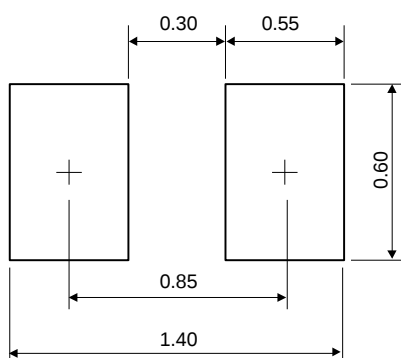
I_F VS V_F

DFN1006-2 Package Outline Drawing



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.340	0.450	0.550
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)

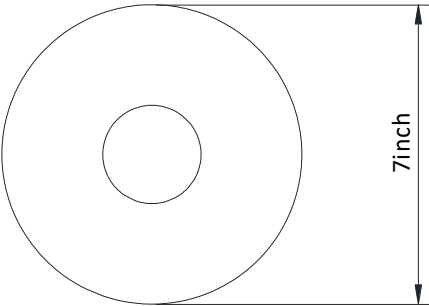


Notes:

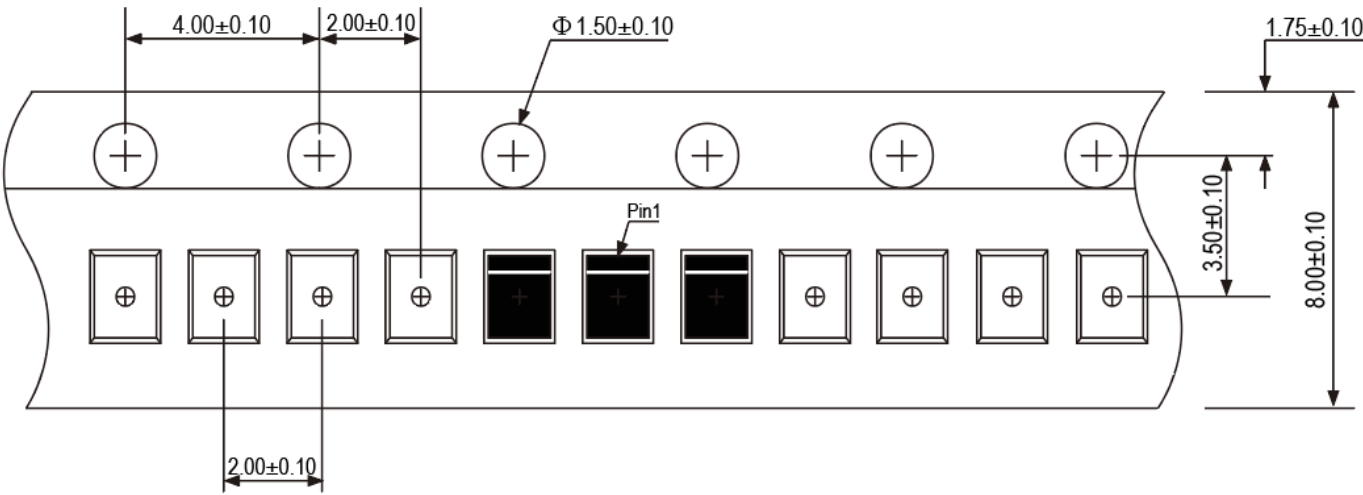
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

TAPE AND REEL INFORMATION

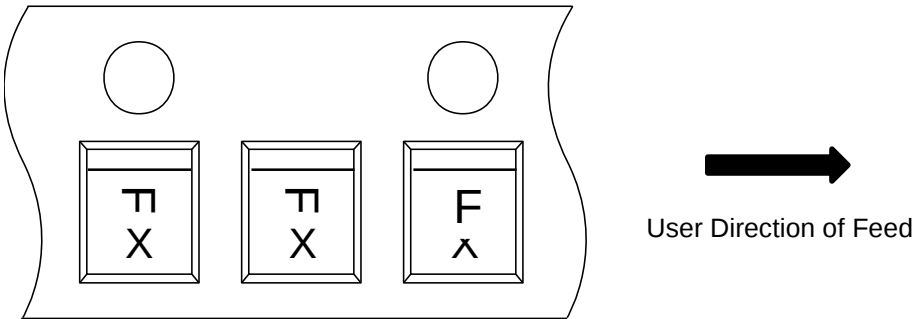
Reel Dimensions



Tape Dimensions



Unit:mm



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