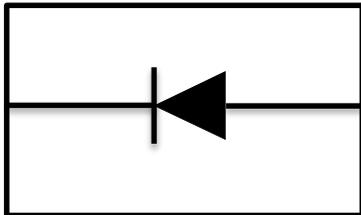


**DFN1006-2 Plastic-Encapsulate Schottky Barrier Diode****Description**

General application schottky barrier diode, encapsulated in a DFN1006-2 leadless ultra small Surface-Mounted Device (SMD) plastic package.

**Features**

- Forward current: 1 A
- Reverse voltage:  $V_R \geq 40\text{ V}$
- Low forward voltage:  $V_F \leq 0.6\text{ V @1A}$
- Low reverse current:  $I_R \leq 100\ \mu\text{ A @ 40 V}$
- High reliability

**Schematic and Pin Configuration**

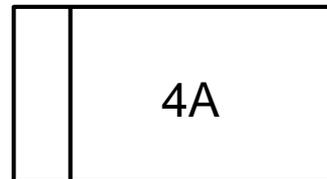
Graphic symbol

**Mechanical Characteristics**

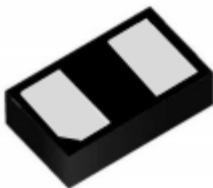
- DFN1006-2 Small Outline Plastic Package
- Level 1 moisture sensitivity per J-STD-020
- Case Material: “Green” Molding Compound
- We declare that the material of product compliance with RoHS requirements and Halogen Free

**Applications**

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Low power consumption applications
- Ultra high-speed switching
- LED backlight for mobile application

**Marking Information**

**4A** = Device Marking Code  
Bar denotes Cathode

**Package**

DFN1006-2(Bottom View)

**Ordering Information**

Part Number	Shipping	Reel Size
PSB40V1P1	10000/Tape & Reel	7 inch

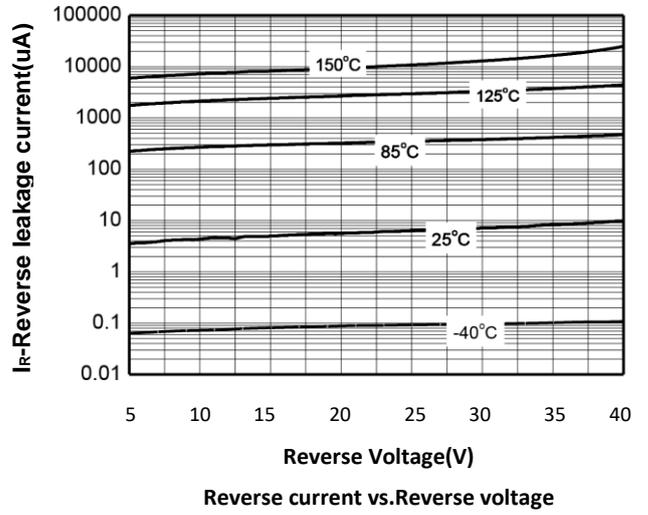
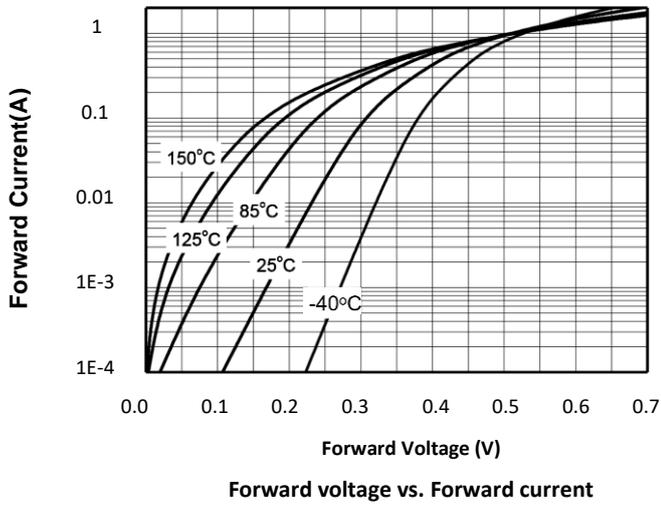
**Maximum Ratings ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)**

Parameter	Symbol	Value	Unit
DC Reverse Voltage	$V_R$	40	V
Mean Rectifying Current	$I_O$	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	5	A
Power Dissipation	$P_D$	400	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	310	$^{\circ}\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Operating Temperature	$T_{OP}$	-40 ~ +85	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +125	$^{\circ}\text{C}$

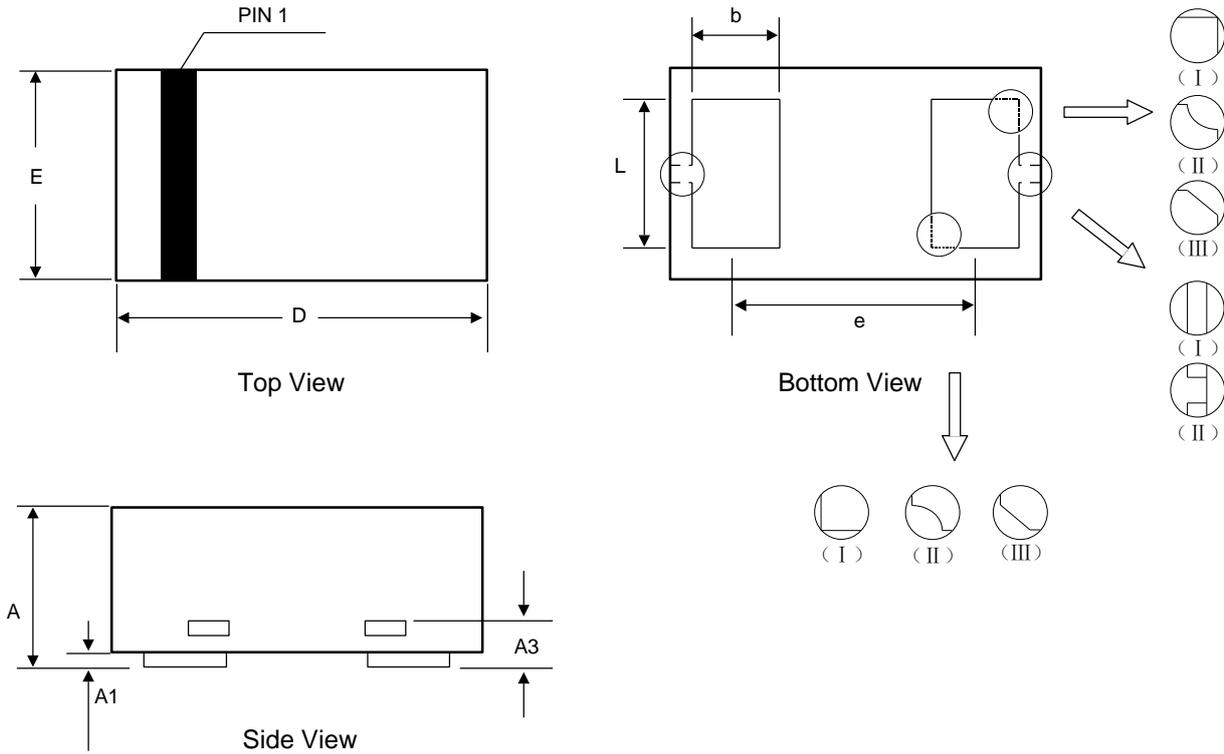
**Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	$V_F$	-	-	0.40	V	$I_F=0.1\text{A}$
		-	-	0.60	V	$I_F=1\text{A}$
Reverse Current	$I_R$	-	-	100	$\mu\text{A}$	$V_R=40\text{V}$

**Typical Performance Characteristics(T<sub>A</sub>=25°C unless otherwise specified)**

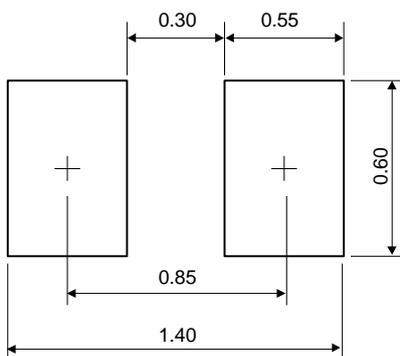


**DFN1006-2 Package Outline Drawing**



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)**

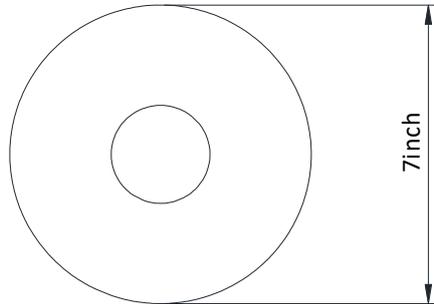


**Notes:**

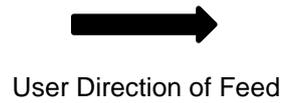
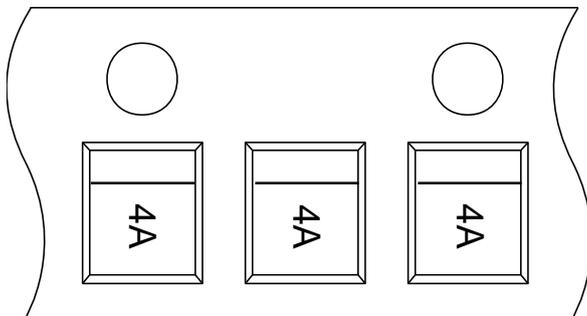
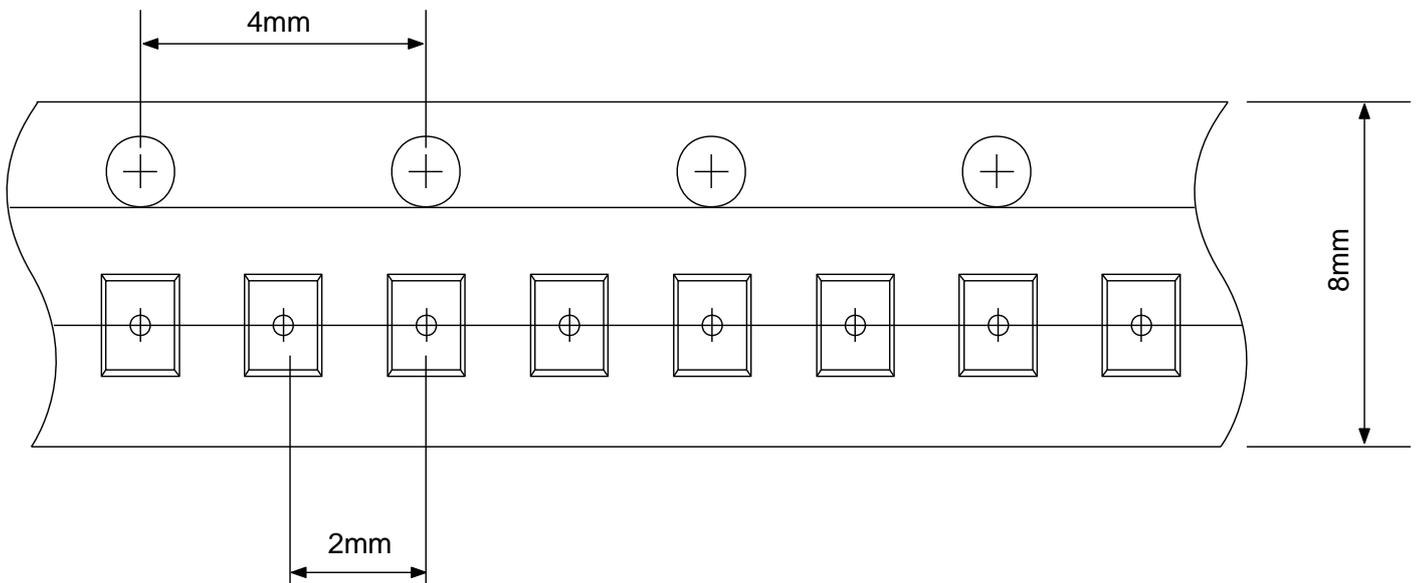
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

**TAPE AND REEL INFORMATION**

Reel Dimensions



Tape Dimensions



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