

DFN1006-2 Plastic-Encapsulate Schottky Barrier Diode

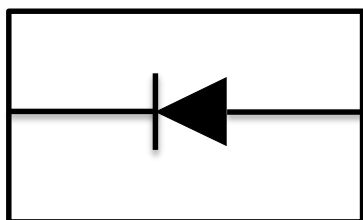
Description

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: $I_R \leq 100\text{ }\mu\text{ A @ 40 V}$
- High reliability

Schematic and Pin Configuration



Graphic symbol

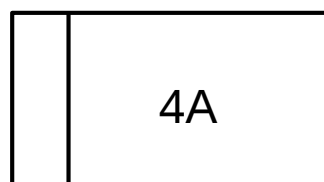
Mechanical Characteristics

- 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

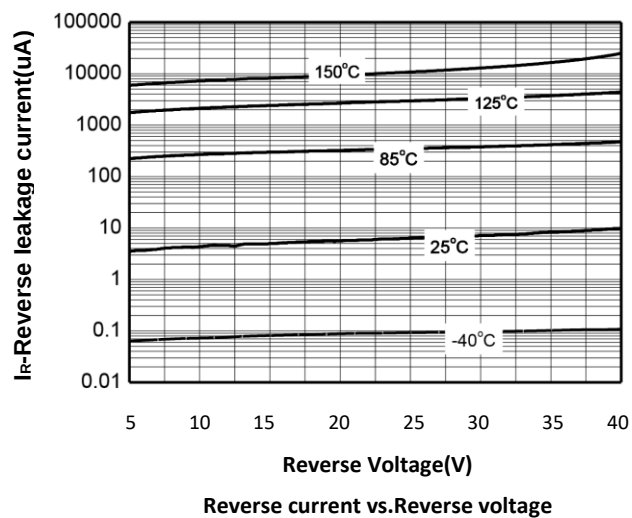
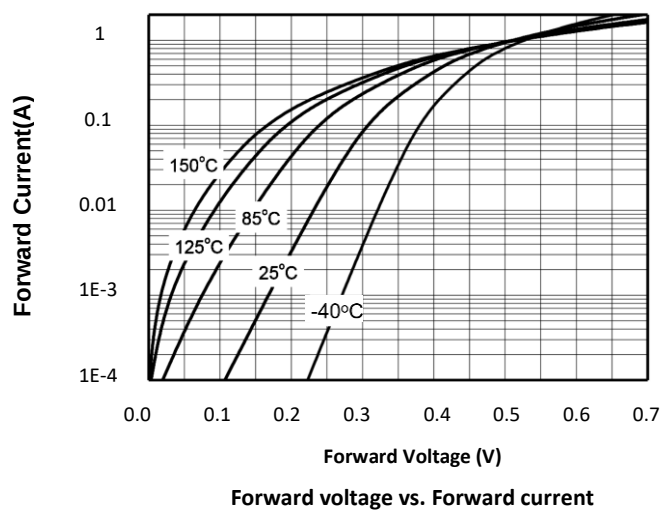
Part Number	Shipping	Reel Size
SSB40V1P1	10000/Tape & Reel	7 inch

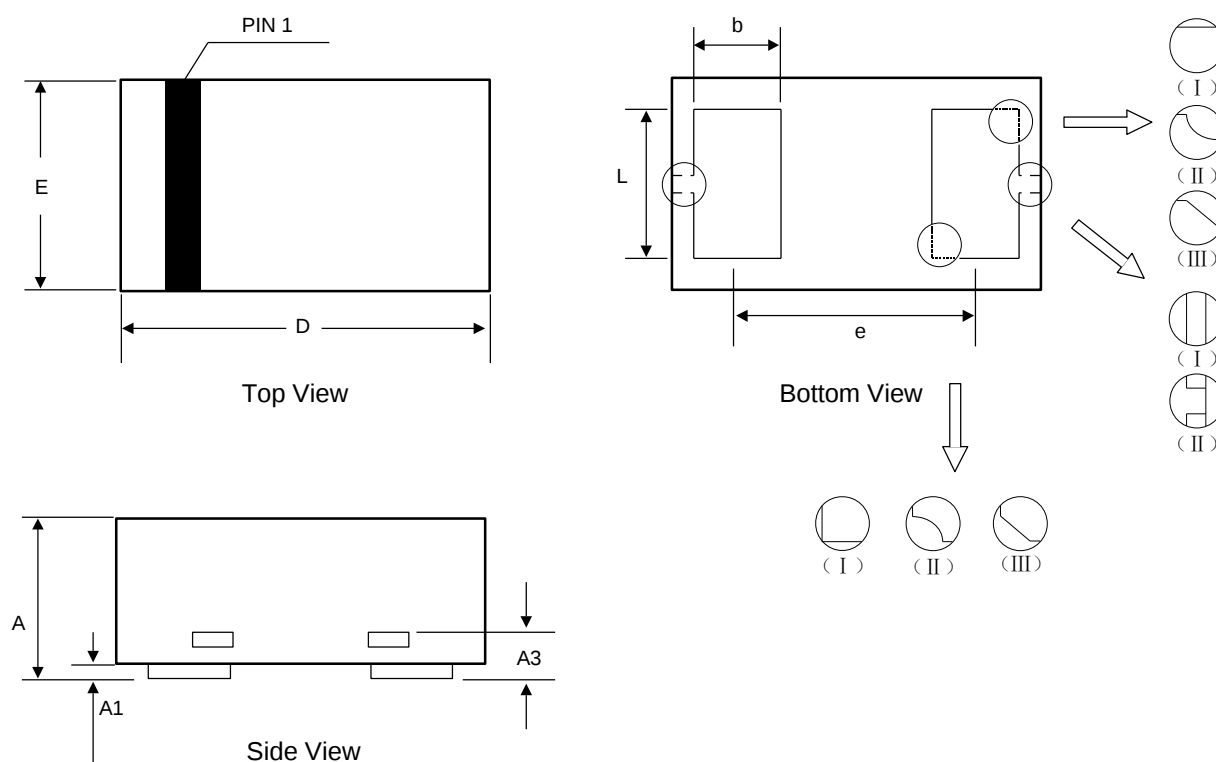
Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

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}	$-40 \sim +85$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +125$	$^{\circ}\text{C}$

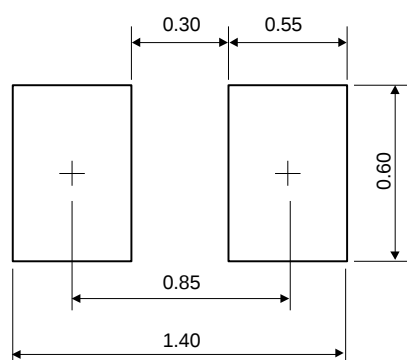
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

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	μA	$V_R=40\text{V}$

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

DFN1006-2 Package Outline Drawing

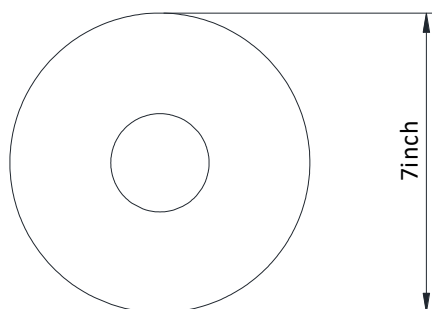
Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.340	0.450	0.550
A1	0.000	0.020	0.050
A3	0.125 Ref.		
D	0.950	1.000	1.075
E	0.490	0.600	0.675
b	0.200	0.250	0.300
L	0.450	0.500	0.550
e	0.650 BSC		

Recommended PCB Layout (Unit: mm)**Notes:**

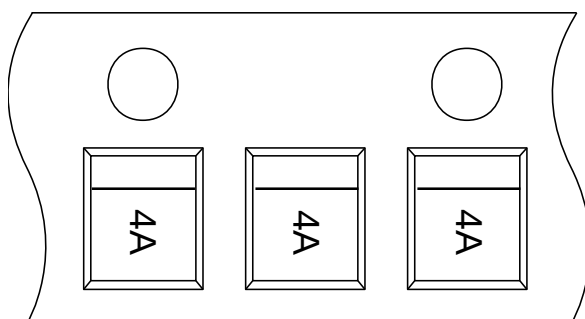
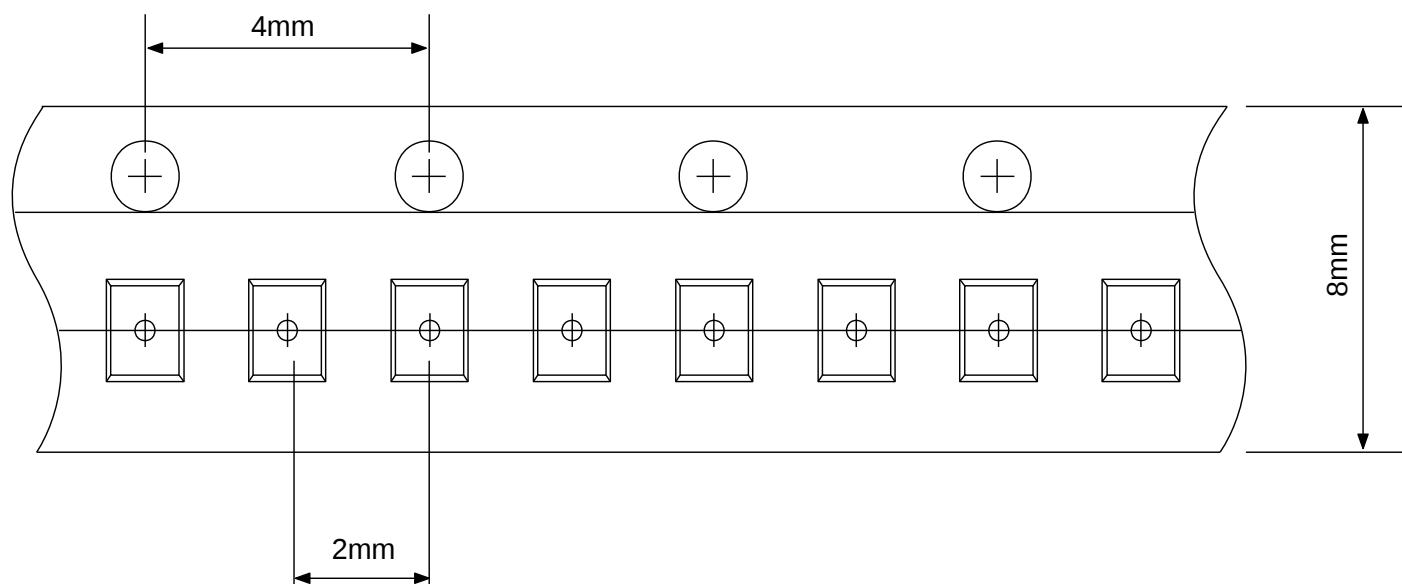
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



User Direction of Feed