

DFN1610-2 Plastic-Encapsulate Schottky Barrier Diode

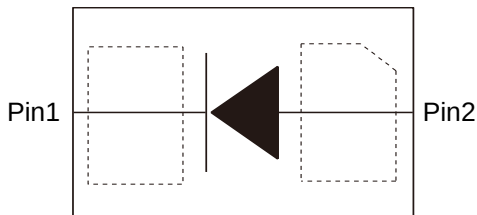
Description

General application schottky barrier diode, encapsulated in a DFN1610-2 leadless ultra small Surface-Mounted Device (SMD) plastic package.

Features

- Forward current: 2 A
- Reverse voltage: $V_R \geq 40\text{ V}$
- Low forward voltage: $V_F \leq 0.60\text{ V @ }2\text{A}$
- Low reverse current: $I_R \leq 80\text{ }\mu\text{A @ }40\text{ V}$
- High reliability

Schematic and Pin Configuration



Graphic symbol

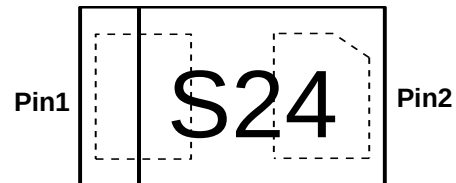
Mechanical Characteristics

- DFN1610-2 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

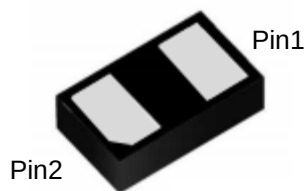
- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Low power consumption applications
- Ultra high-speed switching
- LED backlight for mobile application

Marking Information



S24 = Device Marking Code
Bar denotes Cathode

Package



DFN1610-2(Bottom View)

Ordering Information

Part Number	Shipping	Reel Size
PSBD40V2P6	3000/Tape & Reel	7 inch

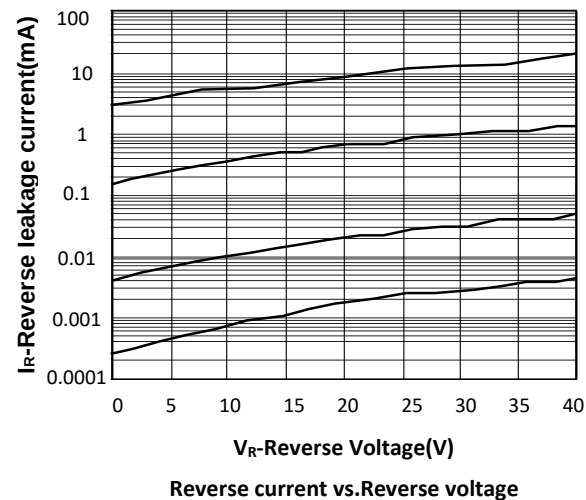
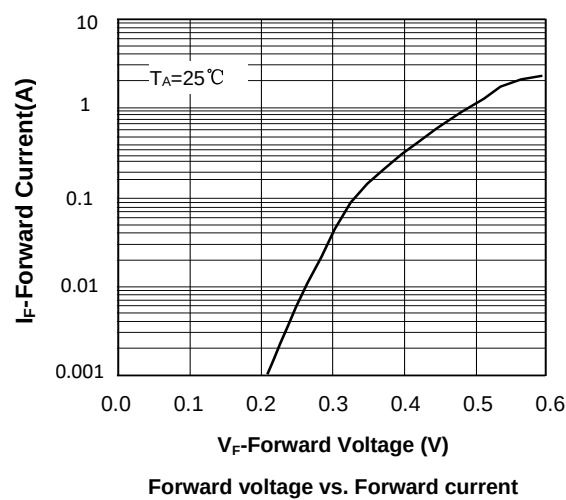
Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V_R	40	V
Mean Rectifying Current	I_O	2	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	12	A
Power Dissipation	P_D	400	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Operating Temperature	T_{OP}	$-40 \sim +125$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +125$	$^{\circ}\text{C}$

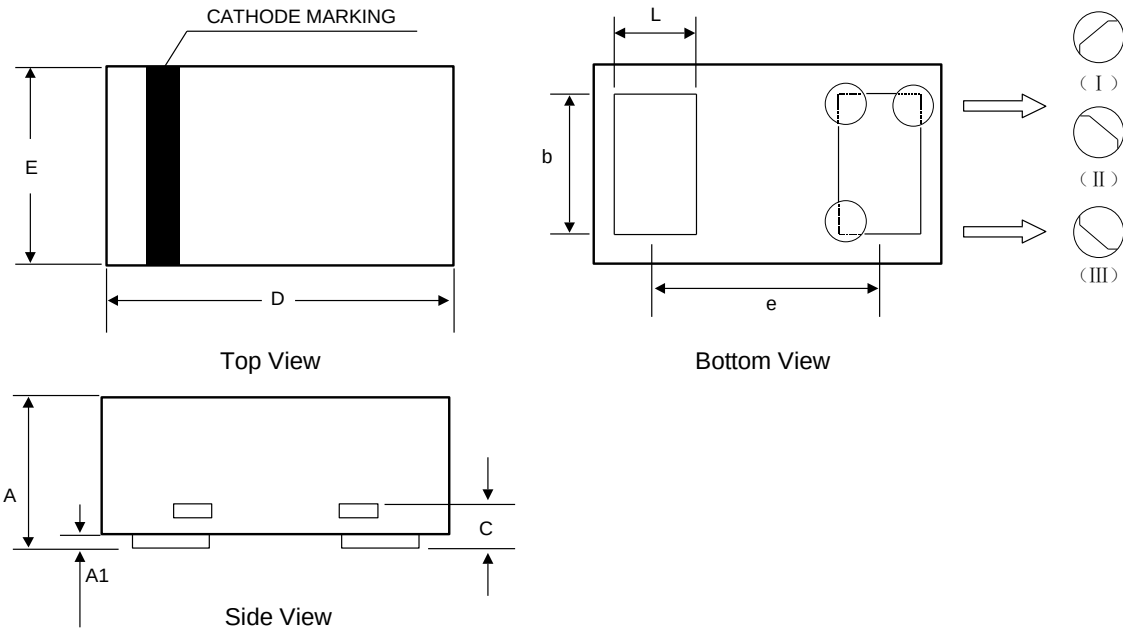
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	V_F	-	-	0.48	V	$I_F=1\text{A}$
		-	-	0.60	V	$I_F=2\text{A}$
Reverse Current	I_R	-	-	80	μA	$V_R=40\text{V}$
Junction Capacitance	C_J		180		pF	$V_R=0\text{V}, f=1\text{MHz}$

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

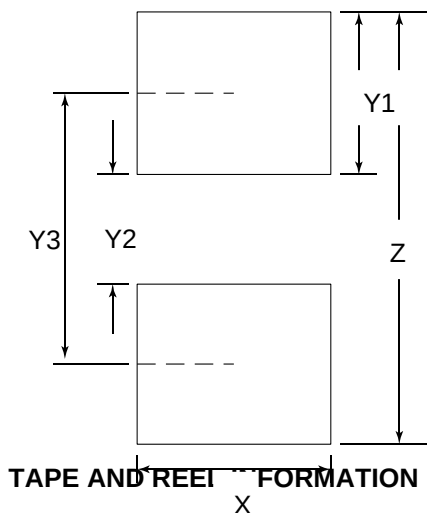


DFN1610-2 Package Outline Drawing



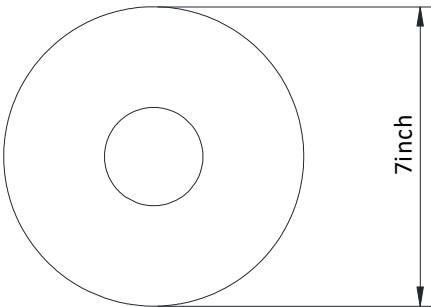
SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1		0.02	0.05		0.001	0.002
b	0.75	0.80	0.85	0.030	0.032	0.034
c	0.10	0.15	0.20	0.004	0.006	0.008
D	1.55	1.60	1.65	0.062	0.064	0.066
e	1.10 BSC			0.044 BSC		
E	0.95	1.00	1.05	0.038	0.040	0.042
L	0.35	0.40	0.45	0.014	0.016	0.018

Suggested Land Pattern

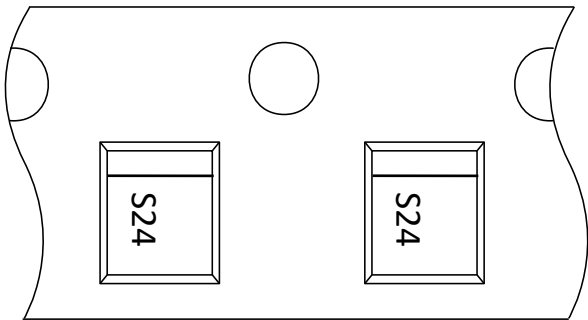
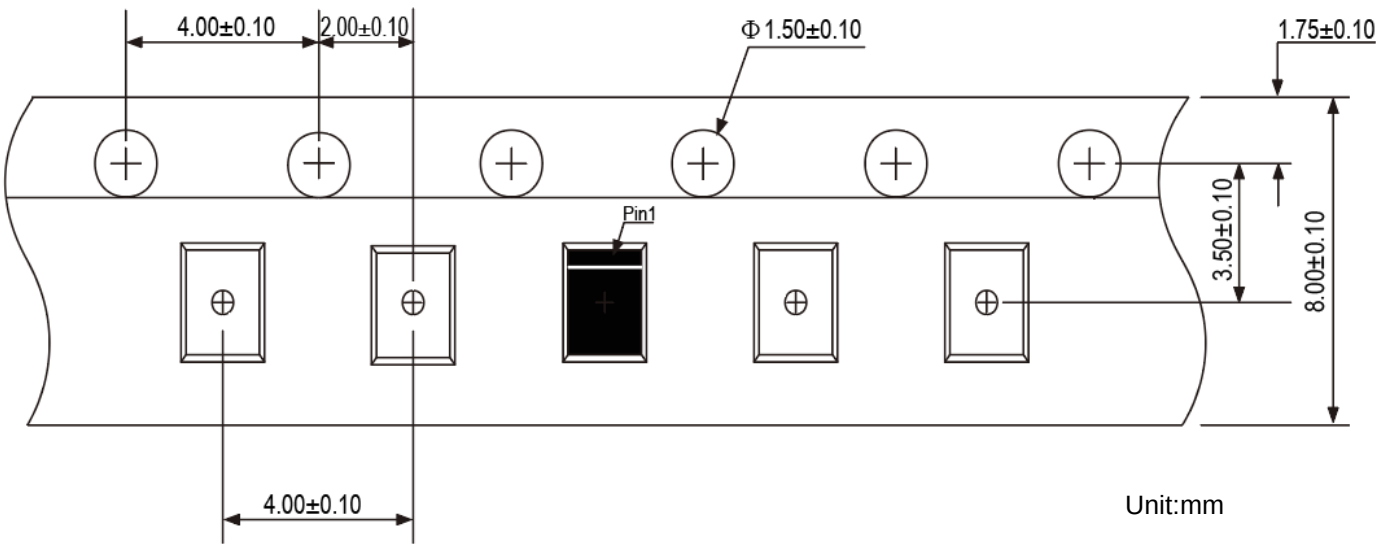


SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	1.00	0.040
Y1	0.62	0.025
Y2	0.60	0.024
Y3	1.22	0.049
Z	1.85	0.074

Reel Dimensions



Tape Dimensions




User Direction of Feed

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