

# DATA SHEET 数据表

**BONSDA CODE** : \_\_\_\_\_ BSD-102  
邦斯达代码

**DESCRIPTION** : \_\_\_\_\_ DIP SWITCH\_BOX TYPE  
描述

## CUSTOMER APPROVAL

客户确认

**PART NO.** : \_\_\_\_\_  
料号

**SIGNATURES** : \_\_\_\_\_  
签章

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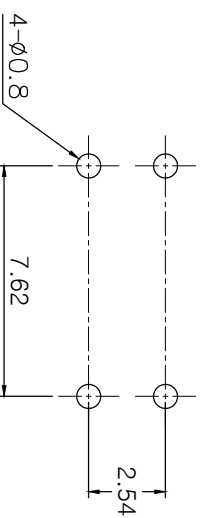
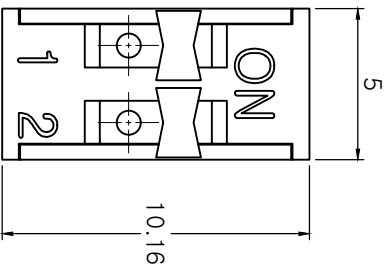
FAX +86 755-2782 3630

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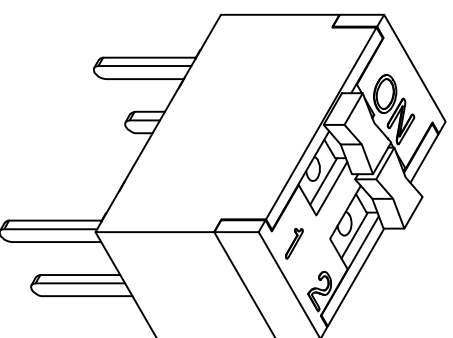
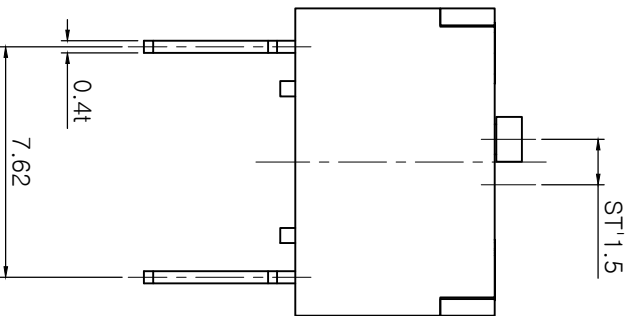
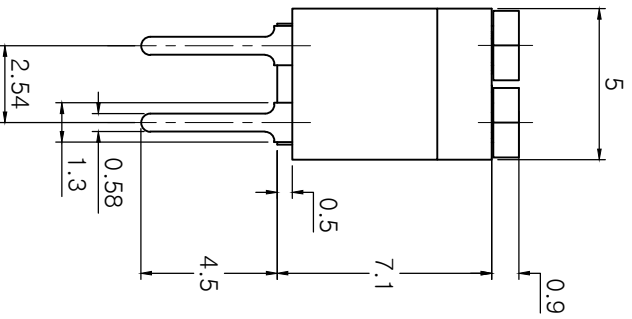
MRK.	DATE	REVISION	SIGN
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P.C.B. DIMENSION

Specification

1. Rating : 0.5A / DC 12V
2. Contact Resistance : 50mΩ Max
3. Insulation Resistance : Min 500MΩ at DC 500V
4. Operating Force : Max 800gf
5. Travel : 1.5mm
6. Life Cycle : 3,000 Cycle



DRAW/DESIGNED	CHECKED	APPROVED		G.TOL	TITLE	DIP SWITCH
J.S YANG	W.J LEE	K.I LEE		±0.3	MODEL NO.	BSD-102
2021-11-05	2021-11-05	2021-11-05	UNIT	SCALE	MODEL NO.	REV.
			mm	4:1	BSD-102-03	03
邦斯达 BONSODA 深圳市子庚科技有限公司			SIZE	DRAW NO.		
			A4	BSD-102-03		

# DIP SWITCH SPECIFICATION

## BSD SERIES

### 1. Description:

This specification describes "BOX TYPE DIP SWITCHES", mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristics.

1-1 Operating / Storage Temperature Range: -40°C ~ +85°C

### 2. Rating:

2-1 Non-Switching : 0.5A, 12V

2-1 Switching : 0.3A, 24V

3. Type of Actuation : Actuated by sliding


### 4. Electrical Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
4-1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.
4-2	Contact Resistance	① To be measured between the two terminals associated with each switch pole. ② Measurements shall be made with a 1kHz shall current contact resistance meter.	50mΩ max. (initial)
4-3	Insulation Resistance	500V DC, 1minute ±5seconds	500 MΩ min.
4-4	Dielectric withstanding Voltage	500V AC(50Hz or 60Hz)shall be applied between all the adjacent terminal and between the terminal and the frame for 1 minute.	There shall be no breakdown or flashover.

# DIP SWITCH SPECIFICATION

## BSD SERIES

### 5. Mechanical Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
5-1	Operation Force	<p>Applied in the direction of operation.</p> <p>ON→OFF OFF→ON</p> 	1000 gf max.
5-2	Stop Strength	A static load of 1 kgf is applied in the operating direction and pulling direction operated for a period of 15 seconds.	There shall be no sign of damage mechanically.
5-3	Soldering Heat Resistance	<p>1) Soldering Temperature : See page 4/4</p> <p>2) Duration of Solder Immersion: 5±1seconds.</p> <p>3) Frequency of Solder Process: 2 times max. (PCB is 1.6mm in thickness.)</p>	As shown in item 4-2, 4-3, 4-4, 5-1
5-4	Operation Life	<p>Measurements shall be made following the test set forth below:</p> <p>1) 500mA, 12V DC resistive load</p> <p>2) Rate of operation: 15~20 cycles/ min</p> <p>3) Cycle of operation: 3,000 cycles</p>	<p>1)As shown in item 4-3, 4-4</p> <p>2)Contact Resistance: 500mΩ max (final-after test)</p>

### 6. Environmental Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
6-1	Moisture Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements. Are made :</p> <p>1) Temperature: 40±2°C</p> <p>2) Relative humidity : 90 to 95% R.H</p> <p>3) Time : 96 hours</p> <p>Water drops shall be removed.</p>	<p>1)As shown in item 4-4, 5-1</p> <p>2)Contact resistance : 50mΩ Max.</p> <p>3)Insulation resistance : 10MΩ Min.</p>

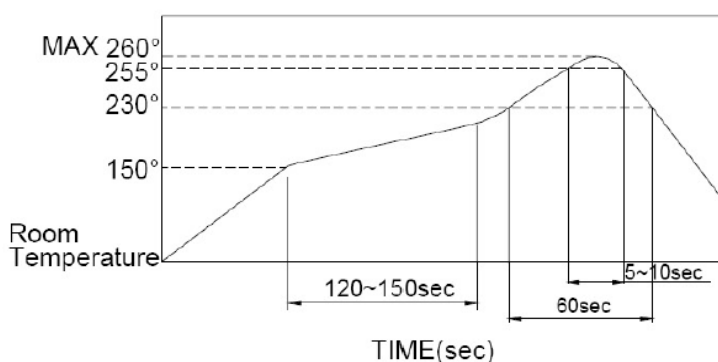
# DIP SWITCH SPECIFICATION

## BSD SERIES

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
6-2	Resistance Low Temperature	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: <math>-40^{\circ}\text{C} \pm 3^{\circ}\text{C}</math></p> <p>2)Time: 96 hours</p> <p>Water drops shall be removed.</p>	As shown in item 4-2, 4-3, 4-4, 5-1
6-3	Resistance High Temperature	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: <math>85^{\circ}\text{C} \pm 2^{\circ}\text{C}</math></p> <p>2)Time: 96 hours</p>	1)As shown in item 4-2, 4-3, 4-4, 5-1

7. This item is "RoHS" Compliant

### 8. Soldering Conditions



8-1 The condition mentioned above is the temperature on the Cu foil of the P.C.B surface.

There are cases where board's temperature greatly differs from switch's surface temperature depending on board's material, size, thickness, etc.

Care, therefore, should be used not to allow switch's surface temperature to exceed 260°C.

# DIP SWITCH SPECIFICATION

## BSD SERIES

**8-2 Manual Soldering: 350°C max, 3 sec max.**

**8-3 Precautions in Handling :**

- 1) Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
- 2) Don't clean the switch body except with top tape sealed type, which can only spray of cleaning method from top of s/w.
- 3) Please make sure that there is no flux rose over the surface of the PCB.