



General Specification 基本参数

1.Rating: 额定功率	150mA, DC 42V (Switching) 200mA, DC 42V (None-Switching)
2.Contact Resistance: 接触电阻	80mΩ Max.
3.Insulation Resistance: 绝缘电阻	100MΩ Min at DC 250V
4.Operationg Force: 操作扭力	700gf Max.
5.Life Cycle: 使用寿命	10,000 steps
6.Sealing: 防护等级	IP67 (Dust& Water proof) (防水防尘)
7.Operating Temperature Range: 使用温度	-40°C +85°C

HOW TO ORDER 选型规则

T

Cover Type
系列型号

D

Actuator
旋钮样式

- D Arrow 箭头槽
(Height = 0mm)
- E Cross 十字槽
(Height = 0mm)
- S 柄高 H7.3mm
- P 柄高 H1.0mm

R

Code
编码方式

- R Real Code
二进制正码
 - C Complement Code
二进制反补码
 - G Gray Code 格雷码
- 特殊编码方式详情
请看下方表格

-

10

Position
档位数

- 04 4 Position
- 06 6 Position
- 08 8 Position
- 10 10 Position
- 16 16 Position

S

Terminal
引脚

- Through-Hole (Ter' 3x3) 直插3对3脚
- C Through-Hole (Ter' 3x2) 直插3对2脚
- S SMD Gull Wing (Ter' 3x3) 贴片3对3脚
- SC SMD Gull Wing (Ter' 3x2) 贴片3对2脚
- H Right Angle 5.08mm 侧插5.08距
- H1 Right Angle 2.54mm 侧插2.54距

TR

Packing
包装

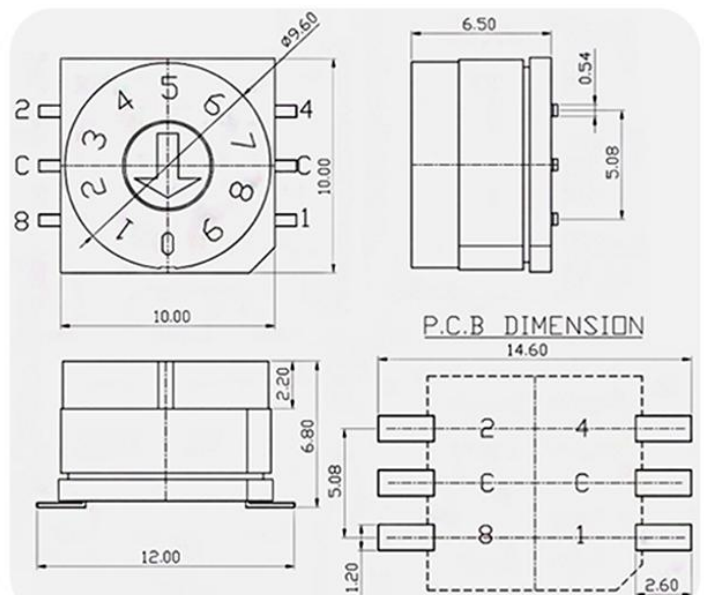
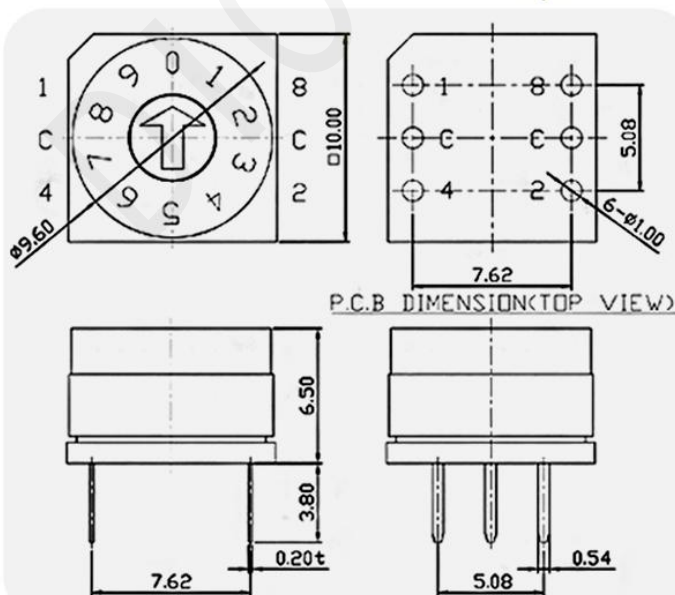
- Tube Packing
管装
- TR Reel Packing
编带

1. General Dimension 基本尺寸

- Through-Hole(3x3)
3对3直插脚



S SMD Gull Wing(3x3)
3对3贴片脚

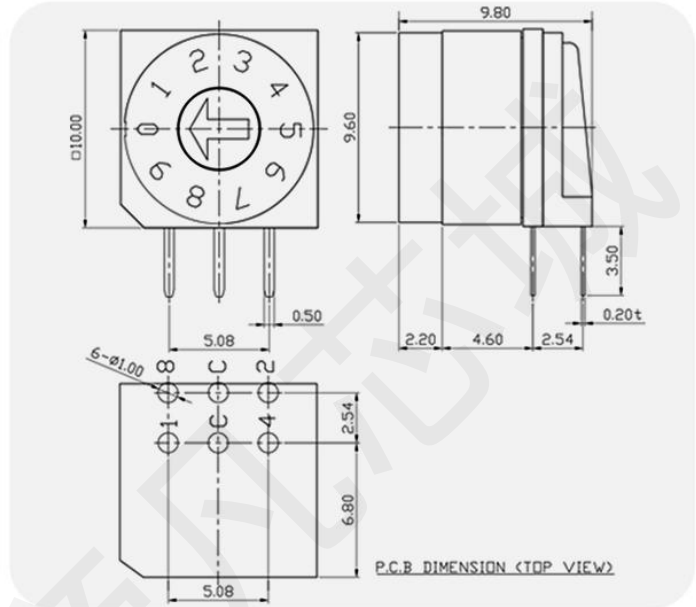
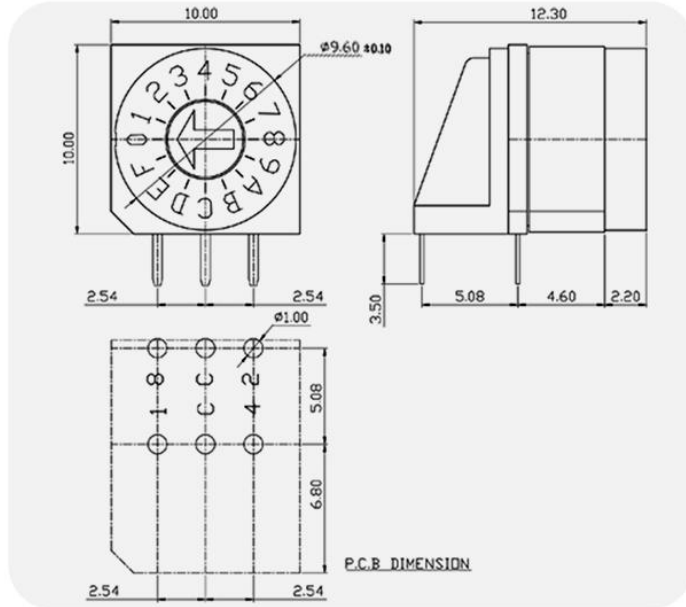




H Right Angle 5.08mm
5.08mm侧插脚



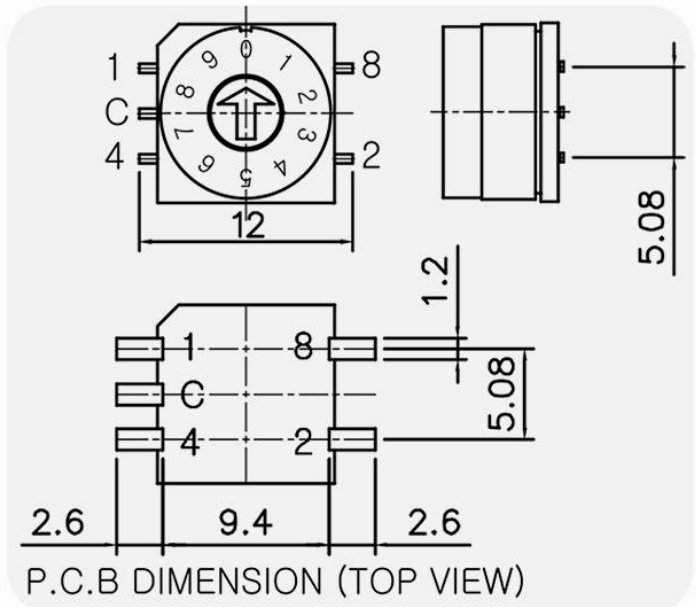
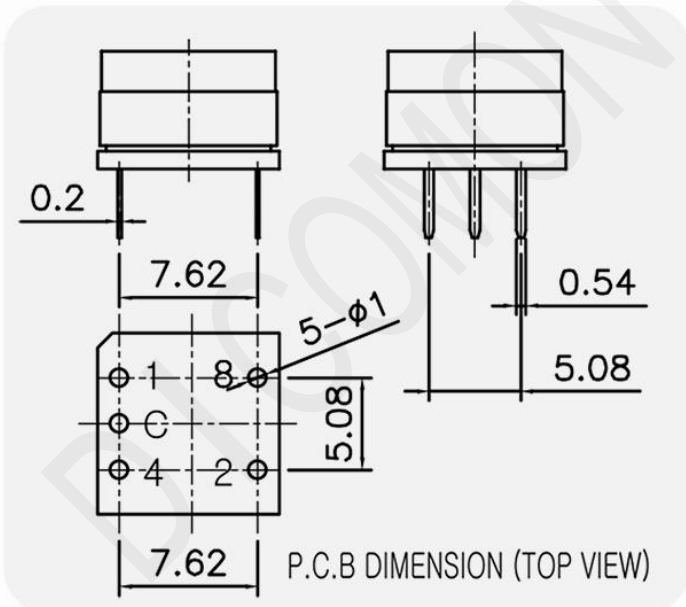
H1 Right Angle 2.54mm
2.54mm侧插脚



C Through-Hole(3x2)
3对2直插脚



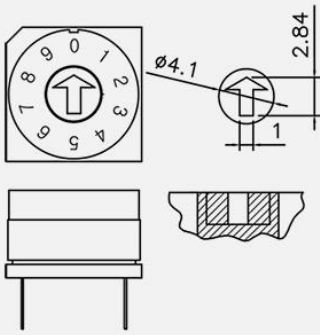
SC SMD Gull Wing(3x2)
3对2贴片脚



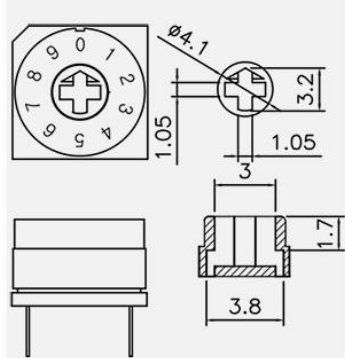
2. Actuator 旋钮样式



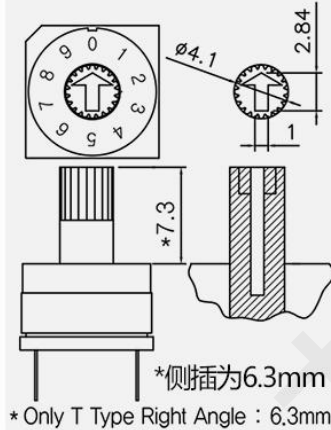
D Arrow (Height = 0mm)



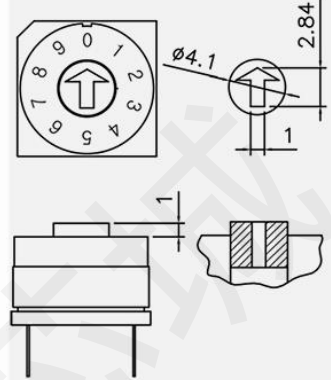
E Cross (Height = 0mm)



S Height = 7.3mm



P Height = 1mm



3. Code & Position 编码方式 & 档位数



R Real Code 二进制正码

Pinout: 2 (C), C (C), 1 (C)

04 POSITION

06/08/10/16 POSITION

16 Position	10 Position	08 Position	06 Position	04 Position	Real Code
					C 1 2 4 8
0					0
1					1
2					2
3					3
4					4
5					5
6					6
7					7
8					8
9					9
10					A
11					B
12					C
13					D
14					E
15					F

C Complement Code 二进制反补码

Pinout: 2 (C), C (C), 1 (C)

04 POSITION

06/08/10/16 POSITION

16 Position	10 Position	08 Position	06 Position	04 Position	Complement Code
					C 1 2 4 8
0					0
1					1
2					2
3					3
4					4
5					5
6					6
7					7
8					8
9					9
10					A
11					B
12					C
13					D
14					E
15					F

G Gray Code 格雷码

Pinout: 1 (C), 8 (C), C (C), 4 (C), 2 (C)

10 POSITION

16 POSITION

10 Position	Gray Code	16 Position	Gray Code
	C 1 2 4 8		C 1 2 4 8
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		A	
11		B	
12		C	
13		D	
14		E	
15		F	

B 二进制反补码 (特殊脚)

Pinout: 8 (C), 2 (C), C (C), 4 (C), 1 (C)

16 POSITION

16 Position	Complement Code
	C 1 2 4 8
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

D 0-3四档波段

Pinout: 1 (C), 2 (C), C (C), 4 (C), 3 (C)

04 POSITION

04 Position	Decimal Code
	C 1 2 3 4
0	
1	
2	
3	

N 1-4四档波段

Pinout: 1 (C), 4 (C), C (C), 3 (C), 2 (C)

04 POSITION

04 Position	Code
	C 1 2 3 4
1	
2	
3	
4	

L 0-5六档波段

Pinout: 5 (C), 4 (C), C (C), 1 (C), 2 (C)

06 POSITION

06 Position	Decimal Code
	C 1 2 3 4 5
0	
1	
2	
3	
4	
5	

T Series Mini Rotary DIP Switch Specification

T系列编码开关 电气参数

1. Description:

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

2. Rating:

2-1 None-Switching : 200 mA, DC 42V

2-2 Switching : 150 mA, DC 42V

3. Type of Actuation : Rotating

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.	80mΩ max.
4-3	Insulation Resistance	250V DC, 1 minute ±5seconds	100 MΩ min.
4-4	Dielectric withstanding Voltage	250V 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.

5. Mechanical Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
5-1	Operation Force	Operating direction shall be clockwise or counter clockwise direction	700gf ·cm max
5-2	Operation Life	Measurements shall be made following the test set forth below: 1)150mA, 42V DC resistive load 2)Rate of operation: 15~20 cycles/ minute 3)Step of operation: 10,000 steps	1)As shown in item 4-3, 4-4 2)Contact Resistance: 200mΩ max

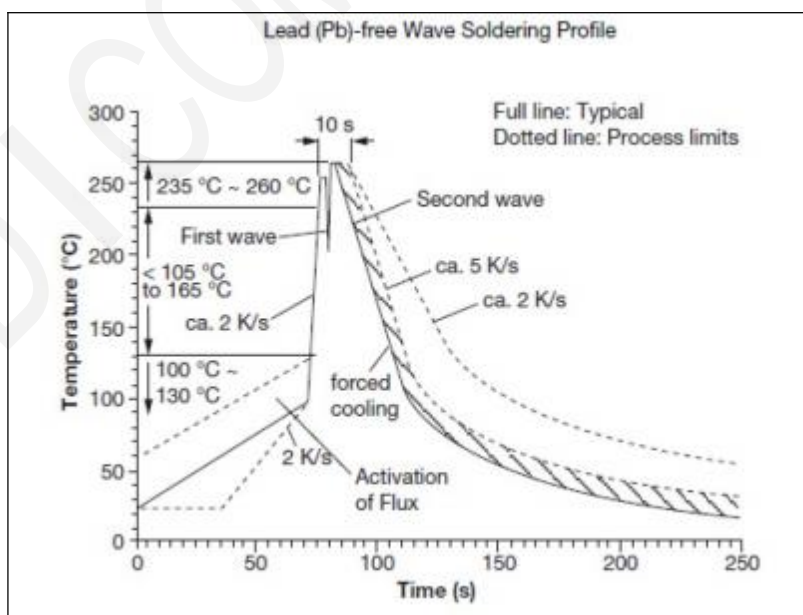
6. Environmental Characteristics

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
6-1	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 2)Time: 96 hours	1)As shown in item 4-3, 4-4, 5-1 2)Contact Resistance: 200mΩ max
6-2	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2)Time: 96 hours	1)As shown in item 4-3, 4-4, 5-1 2)Contact Resistance: 200mΩ max
6-3	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2)Relative humidity: 90~95% 3)Time: 96 hours	1)As shown in item 4-4, 5-1 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10 MΩ min

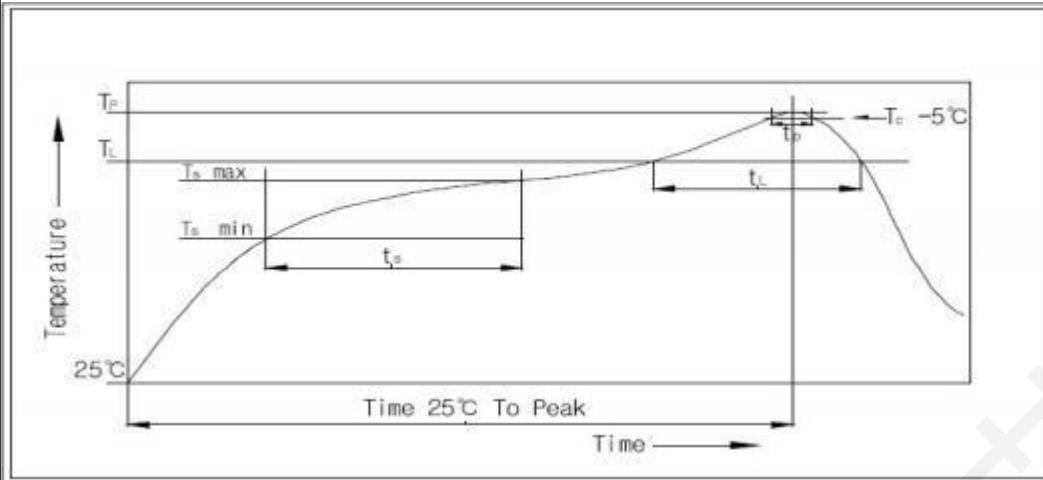
7. This item is "RoHS" Compliant

8. Manual Soldering : Max 350°C, 3 sec.

9. Wave Soldering Conditions:



10. Reflow Soldering Conditions: (SMD type only)



10-1 Condition for Soldering

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate(T_s max to T_p)	3°C/second max
Preheat - Temperature Min(T_s min) - Temperature Max(T_s max) - Time (t_s min to t_s max)	150°C 200°C 60-180seconds
Time maintained above: - Temperature (T_L) - Time (t_L)	217°C 60-150seconds
Peak/ Classification Temperature(T_p)	260°C +0°C/ -5°C
Time within 5°C of actual Peak Temperature(T_p)	5~10 seconds
Ramp- Down Rate	6°C/sec max
Time 25°C to Peak Temperature	8 minutes max