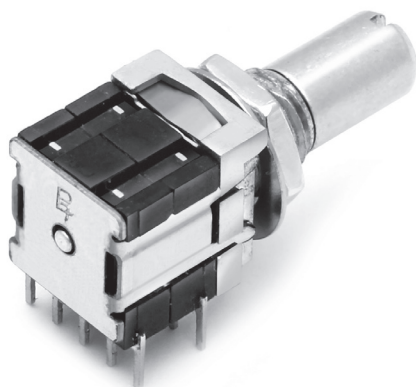


# ROTARY SWITCH

## BTSR10H SERIES

### Miniaturized rotary switch with multi-functions



#### Features

- Designed for P.C. Board mounting version
- Miniaturized size(12mm : height×10mm : width)
- 6.5mm mounting height from shaft-center to P.C.Board

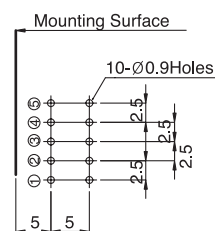
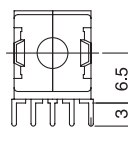
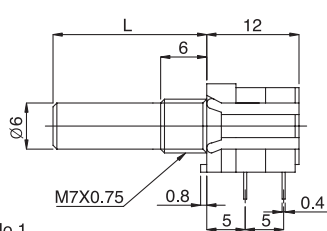
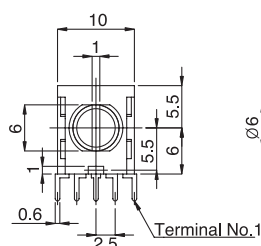
#### Applications

- Applicable to the wide-ranged products such as car-audio, transceiver and communication equipments

### Standard Dimensions

BTSR10H-□□□-□□□

P.C.B Mounting Hole



### Electrical specifications

- Electrical Rating : 0.1A, 16V DC
- Contact Resistance : 50 mohms(initial)
- Insulation Resistance : 100 Mohms, 500V DC
- Withstanding Voltage : 1Min. at 500V AC
- Circuits : Refer to the next page

### Mechanical specifications

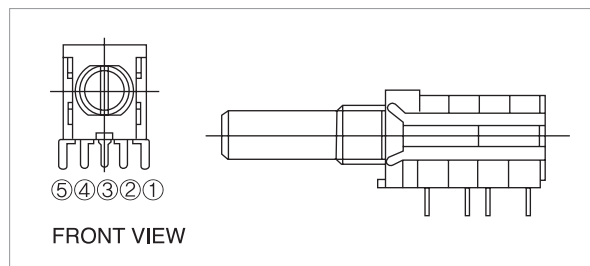
- Electrical life : 10,000 cycles min
- Terminal strength : 500gf · cm for 1min
- Solderability : 230 ± 5°C, 3sec
- Contact timing : shorting and non-shorting
- Rotational torques : 500 ± 200gf · cm

# ROTARY SWITCH

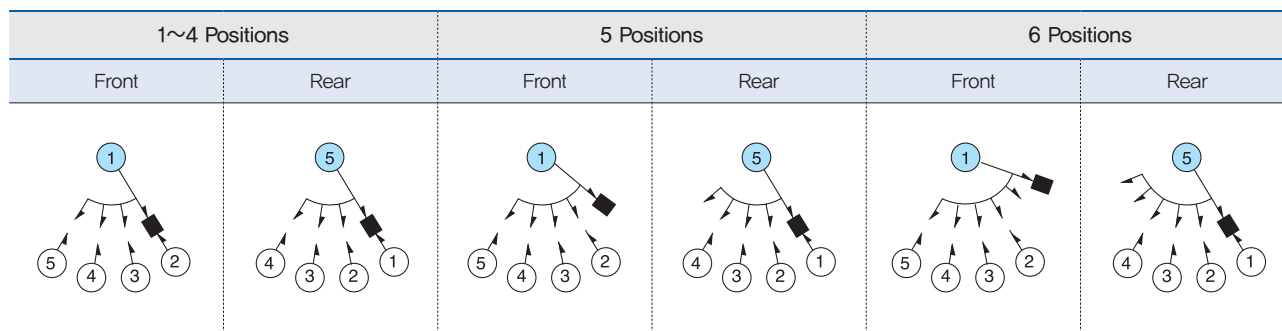
## BTSR10H SERIES

### Circuit Diagrams

- Rotary switch



#### 1) Circuit diagram



2) Changeover angle :  $30^\circ \pm 3^\circ$  (2~6 positions)

### Suggested Ordering Code

BTSR10H - 1 5 N - R 2 0								
Series			Number of wafer sections			Shaft length		
			Number of sections			Shaft length		
			Code			Code		
			1~3			15 20 25 30 35 40		
			1~3			15 20 25 30 35 40		
			Number of positions					
			Number of positions					
			Code					
			2~6					
			2~6					
			Changeover timing					
			Changeover timing					
			Code					
			S N					
						Shaft style		
						Shaft style		
						Code		
						S R F		

## BTSR10H SERIES

Type	No. of section	Dimension	P.C.Board mounting
	1 section rotary switch	<p>Technical drawing of a 1-section rotary switch. The front view shows a circular body with a diameter of 10 and a central shaft with a diameter of 1. The side view shows a length of L and a terminal diameter of Ø6. The terminal view shows a terminal labeled 'TERMINAL NO.1' with a diameter of Ø6 and a pitch of 2.5. Other dimensions include 3, 6.5, 6, 5.5, 0.6, 1, 5.5, 6, 0.8, 5, 5, 0.4, and 12.</p>	<p>Mounting Surface diagram showing 10 mounting holes (10-Ø0.9) arranged in a 2x5 grid. The grid has a pitch of 2.5 and a total width of 5 and a total height of 5. The mounting surface is labeled 'Mounting Surface'.</p>
Single shaft	2 & 3 sections rotary switch	<p>Technical drawing of a 2 &amp; 3 sections rotary switch. The front view shows a circular body with a diameter of 10 and a central shaft with a diameter of 1. The side view shows a length of L and a terminal diameter of Ø6. The terminal view shows a terminal labeled 'TERMINAL NO.1' with a diameter of Ø6 and a pitch of 2.5. Other dimensions include 3, 6.5, 6, 5.5, 0.6, 1, 5.5, 6, 0.8, 5, 5, 0.4, 5, 5, 2.5, 2.5, 19.5, 27, and 6.</p>	<p>Mounting Surface diagram showing 30 mounting holes (30-Ø0.9) arranged in a 6x5 grid. The grid has a pitch of 2.5 and a total width of 5 and a total height of 5. The mounting surface is labeled 'Mounting Surface'.</p>
	1 section pulse switch	<p>Technical drawing of a 1-section pulse switch. The front view shows a circular body with a diameter of 10 and a central shaft with a diameter of 1. The side view shows a length of L and a terminal diameter of Ø6. The terminal view shows a terminal labeled 'TERMINAL NO.1' with a diameter of Ø6 and a pitch of 2.5. Other dimensions include 3, 6.5, 6, 5.5, 0.2, 2.5, 5, 7, 0.8, 5, 5, 0.6, 4, 6.5, 12.9, and 6.</p>	<p>Mounting Surface diagram showing 4 mounting holes (4-Ø0.9) arranged in a 2x2 grid. The grid has a pitch of 2.5 and a total width of 4 and a total height of 4. The mounting surface is labeled 'Mounting Surface'.</p>
Dual shaft	rotary + rotary switch combination	<p>Technical drawing of a rotary + rotary switch combination. The front view shows a circular body with a diameter of 10 and a central shaft with a diameter of 1. The side view shows a length of L and a terminal diameter of Ø6. The terminal view shows a terminal labeled 'TERMINAL NO.1' with a diameter of Ø6 and a pitch of 2.5. Other dimensions include 3, 6.5, 6, 5.5, 0.6, 1, 5.5, 6, 0.8, 5, 5, 0.4, 5, 5, 7.5, 5, 24.5, 6, 6, 3.5, and Ø3.5.</p>	<p>Mounting Surface diagram showing 20 mounting holes (20-Ø0.9) arranged in a 4x5 grid. The grid has a pitch of 2.5 and a total width of 5 and a total height of 5. The mounting surface is labeled 'Mounting Surface'.</p>

# ROTARY SWITCH

## BTR SERIES

### Summerized general specifications of Rotary Switches

#### Electrical specifications

No.	Typical Series	Electrical Rating	Contact Resistance	Insulation Resistance	Withstanding Voltage
1	BTNR 100	0.1A, 12V DC	100 mohms max.	100 Mohms at 500V DC	500V AC for 1 min.
2	BTSR 10H	0.1A, 16V DC	50 mohms max.	100 Mohms at 500V DC	500V AC for 1 min.
3	BTSR 16H	0.3A, 16V DC	50 mohms max.	100 Mohms at 500V DC	500V AC for 1 min.
4	BTSR 12V	0.1A, 16V DC	50 mohms max.	100 Mohms at 100V DC	100V AC for 1 min.
5	BTSR 18V	0.3A, 16V DC	50 mohms max.	100 Mohms at 500V DC	500V AC for 1 min.

#### Mechanical specifications

No.	Typical Series	Rotational Torgue	Operating Life	Others
1	BTNR 100	1,000 $\pm$ 500 gf · cm	10,000 cycles min.	* Operating Temp. range : -10~+60°C * Cold proof Temp. range : -20 $\pm$ 2°C for 96 hr * Hot proof Temp. range : +85 $\pm$ 2°C for 96hr * Solderability : 230 $\pm$ 5°C, 3 $\pm$ 0.5 sec * Solder heat resistance : 260 $\pm$ 5°C, 5 sec
2	BTSR 10H	500 $\pm$ 200 gf · cm	10,000 cycles min.	
3	BTSR 16H	500 $\pm$ 200 gf · cm	10,000 cycles min.	
4	BTSR 12V	100 $\pm$ 50 gf · cm	10,000 cycles min.	
5	BTSR 18V	600 $\pm$ 300 gf · cm	10,000 cycles min.	

