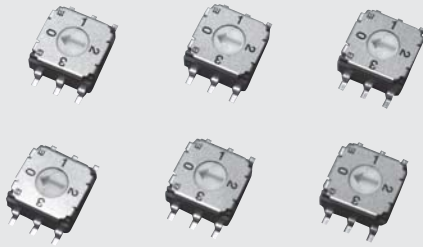


# ROTARY SELECTOR SWITCHES (SMD)

# CS-7

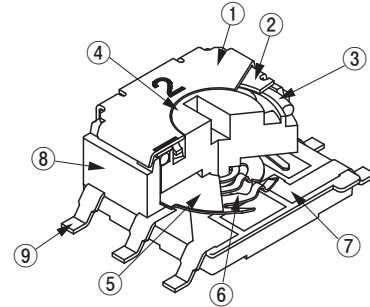
## RoHS compliant



## FEATURES

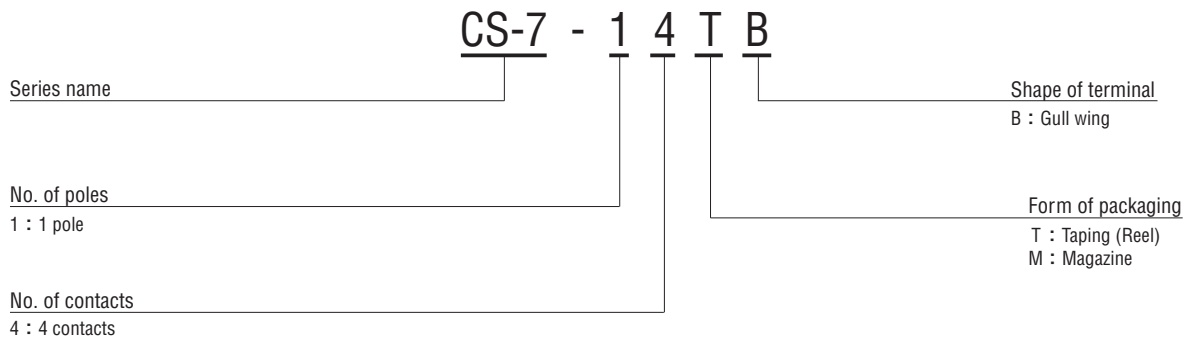
- RoHS compliant
- Easy position setting with wide switching angle
- High digit visibility
- Washable

## INTERNAL STRUCTURE



| Part name        | Material                  | Flammability |
|------------------|---------------------------|--------------|
| ① Marking cover  | Stainless steel (SUS 304) | —            |
| ② Cover          | Stainless steel (SUS 301) |              |
| ③ “0” ring       | Silicone rubber           | UL94HB       |
| ④ Rotor          | Polyphenylenesulphide     | UL94V-0      |
| ⑤ Spacer         | Stainless steel (SUS 304) | —            |
| ⑥ Slider contact | Copper alloy, Gold-plated |              |
| ⑦ Fixed contact  |                           |              |
| ⑧ Housing        | Polyphenylenesulphide     | UL94V-0      |
| ⑨ Terminal pin   | Copper alloy, Gold-plated | —            |

## PART NUMBER DESIGNATION



※ Please refer to the LIST OF PART NUMBERS when placing orders.

# CS-7

## ROTARY SELECTOR SWITCHES (SMD)

### LIST OF PART NUMBERS

| Circuit type      | Setting position | Form of packaging | B<br>Gull wing | Pieces in package |
|-------------------|------------------|-------------------|----------------|-------------------|
| 1 pole 4 contacts | Top setting      | Taping            | CS-7-14TB      | 500 pcs./reel     |
|                   |                  | Magazine          | CS-7-14MB      | 50 pcs./stick     |

※ Verify the above part numbers when placing orders. Taping and magazine version can be supplied only in reel or stick unit.

### STANDARD SPECIFICATIONS

|                             |  |
|-----------------------------|--|
| Circuit type                | 1 pole 4 contacts                                      |
| Operating temperature range | -40 ~ 85 °C  |
| Storage temperature range   |  |
| Sealing                     | Washable by "O"ring<br>※ Please refer to page 150, 151 |
| Net weight                  | Approx. 0.38 g   |

### ELECTRICAL CHARACTERISTICS

|                       |   |
|-----------------------|---|
| Contact rating        | DC50 V 100 mA<br>DC5 V 100 mA<br>DC20 mV 1 μA |
| Non-switching         |   |
| Switching             |   |
| Minimum               |   |
| Contact resistance    | 100 mΩ maximum                                |
| Insulation resistance | 1000 MΩ (DC100 V) minimum                     |
| Dielectric strength   | AC250 V, 60 s                                 |

### MECHANICAL CHARACTERISTICS

|                   |  |
|-------------------|--|
| No. of positions  | 4  |
| Adjustment torque | 3~20 mN·m {31~204gf·cm}  |
| Stepping angle    | 90°  |
| Solderability     | 245 ± 3 °C, 2 ~ 3 s  |
| Soldering heat    | Reflow : Peak temperature 250°C to 255 °C<br>(Please refer to the profile below) |
|                   | Manual soldering : 350 ± 10 °C, 3 ~ 4 s  |
| Shear (adhesion)  | 5 N {0.51 kgf} 10 s  |
| Substrate bending | Width 90 mm, bend 3 mm, 5 s, 1 time  |
| Pull-off strength | 5 N {0.51 kgf} 10s   |

{ } : Reference only

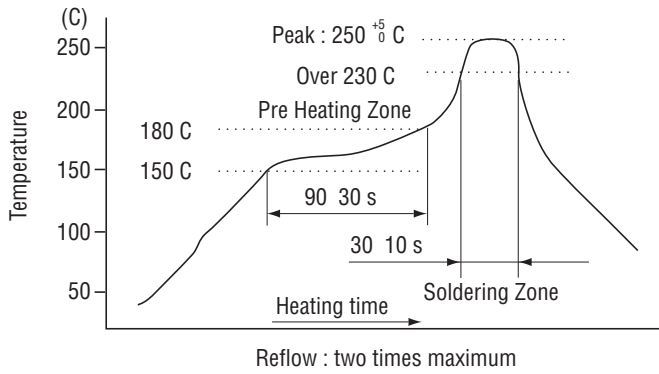
### ENVIRONMENTAL CHARACTERISTICS

|                           |  |
|---------------------------|--|
| Vibration                 | Amplitude 1.5 mm or<br>Acceleration 98 m/s <sup>2</sup> ,<br>10-500-10 Hz, 3 directions for 2 h each |
| Shock                     | 490 m/s <sup>2</sup> , 11 ms<br>6 directions for 3 times each  |
| Load life                 | 10000 steps minimum, DC5 V, 100 mA   |
| Humidity (Steady state)   | 40 °C, Relative humidity 90 ~ 95 %, 240 h  |
| High temperature exposure | 85 °C, 96 h  |
| Low temperature exposure  | -40 °C, 96 h   |
| Thermal shock             | -40 (0.5 h) ~ 85 °C ( 0.5 h ), 5 cycles  |

# CS-7

## ROTARY SELECTOR SWITCHES (SMD)

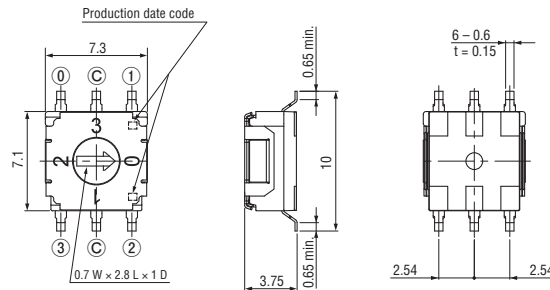
### <Reflow profile for soldering heat evaluation>



## OUTLINE DIMENSIONS

### CS-7-14B

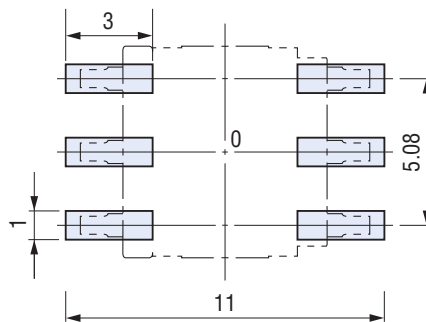
Unless otherwise specified, tolerance:  $\pm 0.3$  (Unit: mm)



## RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

### CS-7-14B

(Unit: mm)



# CS-7

## ROTARY SELECTOR SWITCHES (SMD)

### PACKAGING SPECIFICATIONS

#### <Taping packaging specifications>

- Taping version is packaged in 500 pcs. per reel.  
Orders will be accepted for units of 500 pcs., i.e., 500, 1000, 1500, pcs., etc.

- Taping version is boxed with one reel (500 pcs.).

Maximum number of consecutive missing pieces = 2  
Leader length and reel dimension are shown in the diagrams below:

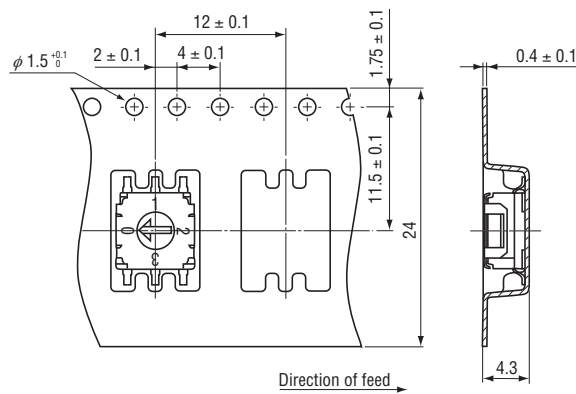
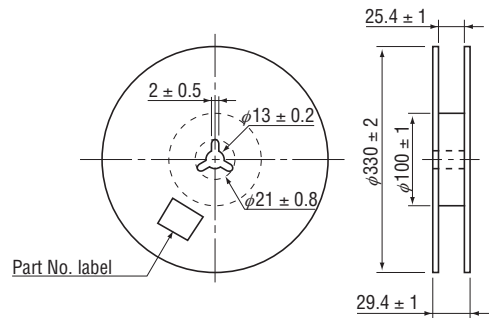
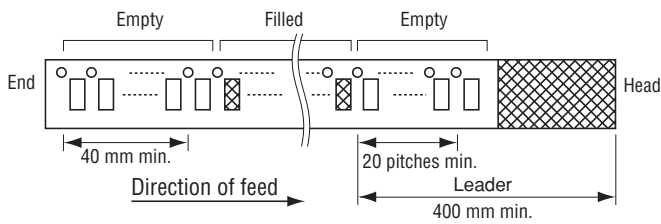
#### ● Embossed tape dimensions

#### ● Reel dimensions

(Unit: mm)

(Conforms to JIS C 0806-3)

(In accordance with EIAJ ET-7200A)



# CS-7

## ROTARY SELECTOR SWITCHES (SMD)

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### ■ PACKAGING SPECIFICATIONS

#### <Magazine packaging specifications>

- Please order the multiple numbers of the specific packing quantities.

Pieces in package : 50 pcs./stick

#### ● Magazine dimensions

(Unit : mm)

