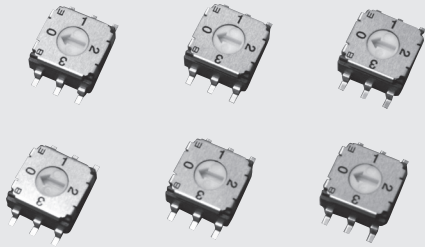


# ROTARY SELECTOR SWITCHES (SMD)

# CS-7

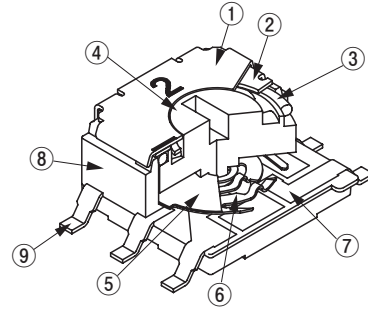
## RoHS compliant



## FEATURES

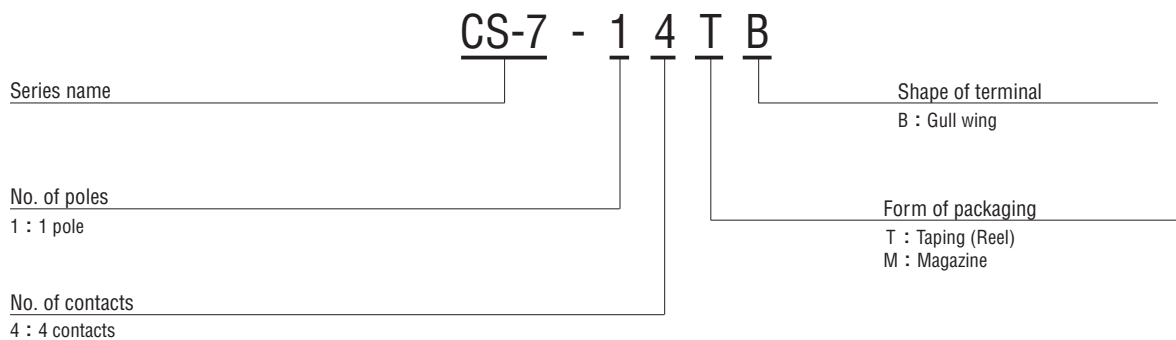
- RoHS compliant
- Easy position setting with wide switching angle
- High digit visibility
- Washable

## INTERNAL STRUCTURE



Part name	Material	Flammability
① Marking cover	Stainless steel (SUS 304)	—
② Cover	Stainless steel (SUS 301)	
③ “O” 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 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 ※ Please refer to page 150, 151
Net weight	Approx. 0.38 g

### ELECTRICAL CHARACTERISTICS

Contact rating Non-switching Switching Minimum	DC50 V 100 mA DC5 V 100 mA DC20 mV 1 μA
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 (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

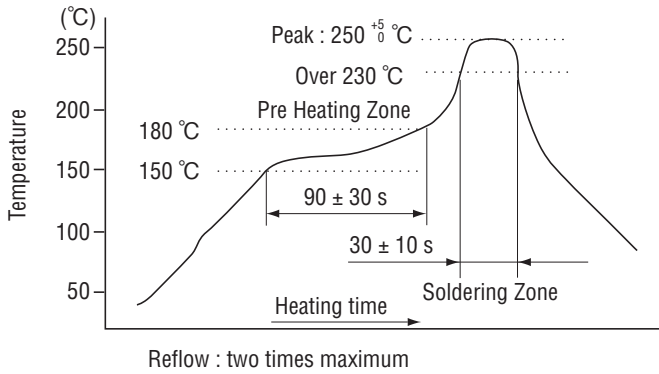
### ENVIRONMENTAL CHARACTERISTICS

Vibration	(Amplitude) 1.5 mmor (Acceleration) 98 m/s <sup>2</sup> , 10-500-10 Hz, 3 directions for 2 h each
Shock	490 m/s <sup>2</sup> , 11 ms 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)

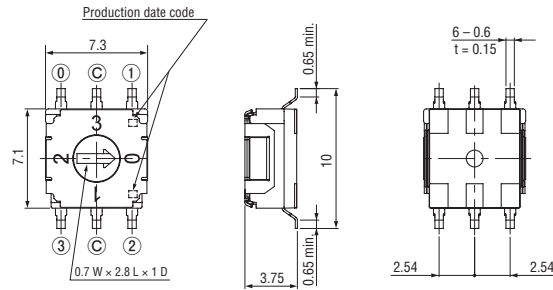
### <Reflow profile for soldering heat evaluation>



## OUTLINE DIMENSIONS

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

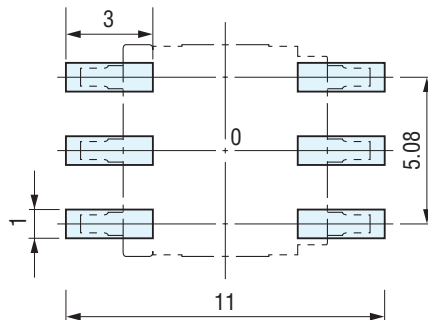
### CS-7-14B



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

### CS-7-14B

(Unit: mm)



# CS-7

## ROTARY SELECTOR SWITCHES (SMD)

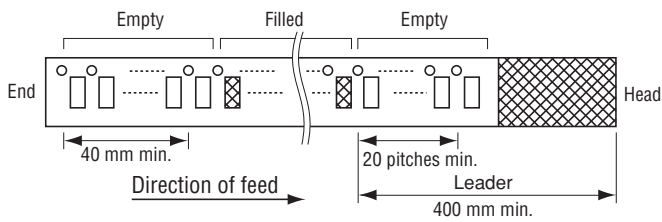
### PACKAGING SPECIFICATIONS

#### <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:

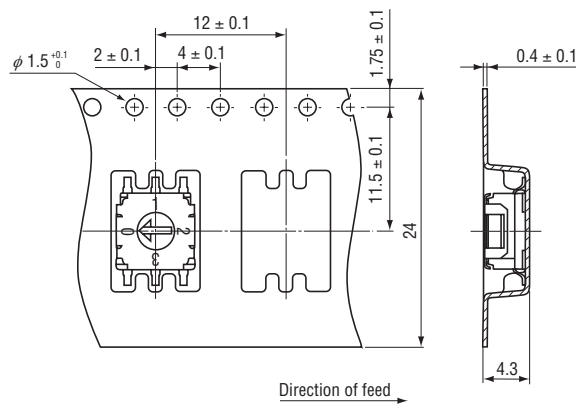
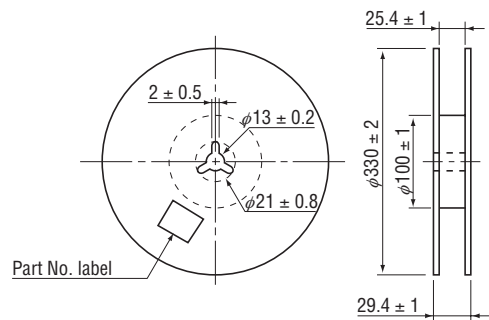
#### ● Embossed tape dimensions



#### ● 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)

