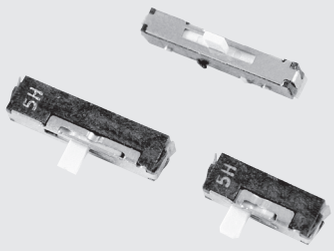
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# COMPACT SLIDE SWITCHES CSS

RoHS compliant



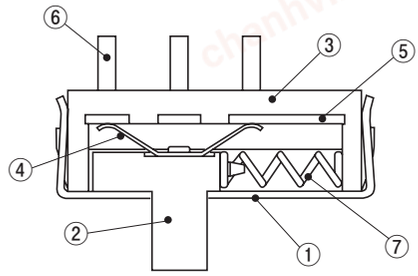
## FEATURES

- Low-profile of 2 mm
- Self-return type available
- RoHS compliant

## APPLICATIONS

- Mobile stereo · LCD TV · Camcorder

**INTERNAL STRUCTURE**




| Part name | | Material | Flammability |
|---|---|---|---|
| ① | Cover | Stainless steel (SUS 304) | — |
| ② | Slider | Liquid Crystal polymer | UL94V-0 |
| ③ | Housing | | |
| ④ | Slider contact | Copper alloy, Gold-plated | — |
| ⑤ | Fixed contact | | |
| ⑥ | Terminal pin | | |
| ⑦ | Return spring | SWP | |

## PART NUMBER DESIGNATION

C S S - 1 2 1 1 T B

Series name

No. of poles
1 : 1 pole

No. of contacts
2 : 2 contacts
3 : 3 contacts

Setting position
0 : Top setting
1 : Side setting

Shape of terminal
B : Gull wing
C : Through hole pins

Form of packaging
T : Taping
M : Magazine

Self-return function
0 : No function
1 : Single
2 : Double

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

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# CSS
# COMPACT SLIDE SWITCHES

## LIST OF PART NUMBERS

| No. of contacts | Setting position | Self-return function | Shape of terminal | Form of packaging | Part number | Pieces in package |
|---|---|---|---|---|---|---|
| 2 | Side setting | No function | B (Gull wing) | Taping | CSS-1210TB | 1,900 pcs./reel |
| | | | C (Through hole pins) | Magazine | CSS-1210MC | 53 pcs./stick |
| | | Single | B (Gull wing) | Taping | CSS-1211TB | 1,900 pcs./reel |
| | | | C (Through hole pins) | Magazine | CSS-1211MC | 53 pcs./stick |
| 3 | Side setting | No function | B (Gull wing) | Taping | CSS-1310TB | 1,900 pcs./reel |
| | | | C (Through hole pins) | Magazine | CSS-1310MC | 38 pcs./stick |
| | | Single | B (Gull wing) | Taping | CSS-1311TB | 1,900 pcs./reel |
| | | | C (Through hole pins) | Magazine | CSS-1311MC | 38 pcs./stick |
| | | Double | B (Gull wing) | Taping | CSS-1312TB | 1,900 pcs./reel |
| | | | C (Through hole pins) | Magazine | CSS-1312MC | 38 pcs./stick |
| | Top setting | No function | C (Through hole pins) | Magazine | CSS-1300MC | 38 pcs./stick |
| | | Double | C (Through hole pins) | Magazine | CSS-1302MC | 38 pcs./stick |

## STANDARD SPECIFICATIONS

| | |
|---|---|
| Operating temp. range | − 20 ~ 70 °C |
| Storage temp. range | − 40 ~ 85 °C |
| Sealing | Non- Washable |
| Net weight | Approx. 0.11 g (CSS-12), Approx. 0.15 g (CSS-13) |

## MECHANICAL CHARACTERISTICS

| | |
|---|---|
| No. of positions | 2, 3 |
| Stroke | 2 mm |
| Operating force | 1 ~ 3.5 N {0.1 ~ 0.36 kgf} |
| Stop strength | 10 N {1.02 kgf} 15 s（操作方向） |
| Solderability | 245 ± 3 °C 2 ~ 3 s<br>Sn-3Ag-0.5Cu |
| Soldering heat | Reflow：250 ~ 255 °C (Peak temperature)<br>（Please refer to the profile below） |
| | Manual soldering：350 ± 10 °C, 3 ~ 4 s |
| Shear (Adhesion) | 5 N {0.5 kgf} 10 s |
| Substrate bending | Width 90 mm, bend 3 mm, 5 s, 1 time |
| Pull-off strength | 5 N {0.5 kgf} 10 s |

{ } : Reference only

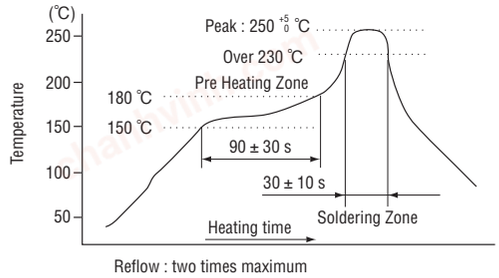
## ELECTRICAL CHARACTERISTICS

| | |
|---|---|
| Contact rating | Non-switching : DC50 V 100 mA<br>Switching : DC12 V 100 mA<br>Minimum : DC20 mV 1 μA |
| Contact timing | Non-shorting |
| Contact resistance | 70 m Ω maximum |
| Insulation resistance | 100 M Ω minimum (DC 500 V) |
| Dielectric strength | AC500 V 60 s |

## ENVIRONMENTAL CHARACTERISTICS

| | |
|---|---|
| Vibration | Amplitude 1.5 mm or Acceleration 98 m/s², 10-500-10 Hz, 3 directions for 10 cycles each |
| Shock | 490 m/s², 11 ms, 6 directions for 3 times each |
| Load life | Continuous load 10000 cycles, DC12 ± 0.5 V, 100 ± 10 mA |
| Humidity | 40 °C, Relative humidity 90 ~ 95 %, 240 h, No load |
| High temp. exposure | 85 °C, 96 h, No load |
| Low temp. exposure | − 40 °C, 96 h, No load |
| Thermal shock | − 40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles |

### 〈Reflow profile for soldering heat evaluation〉




Reflow : two times maximum

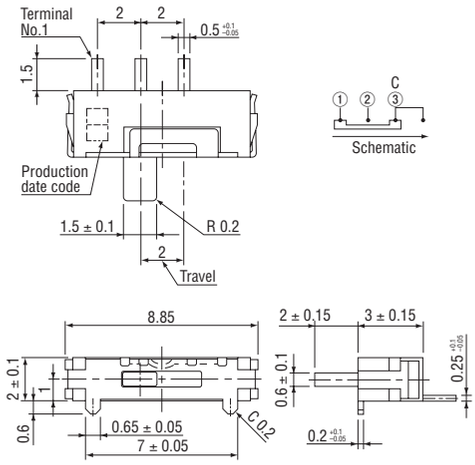
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# CSS
# COMPACT SLIDE SWITCHES

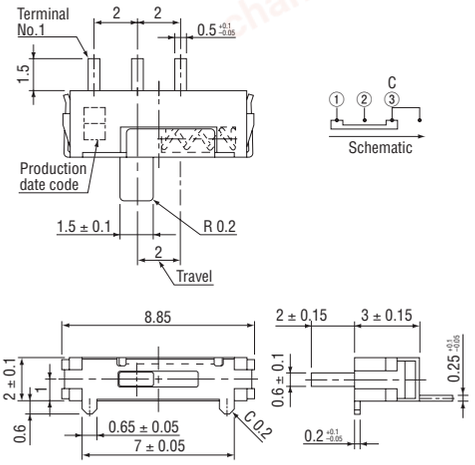
## OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.2 (Unit : mm)

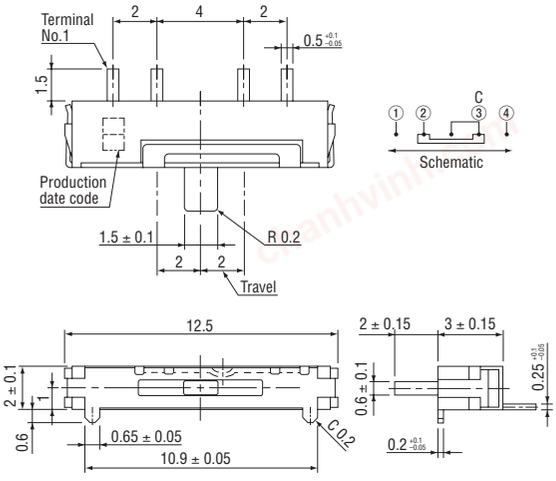
### ● CSS-1210B



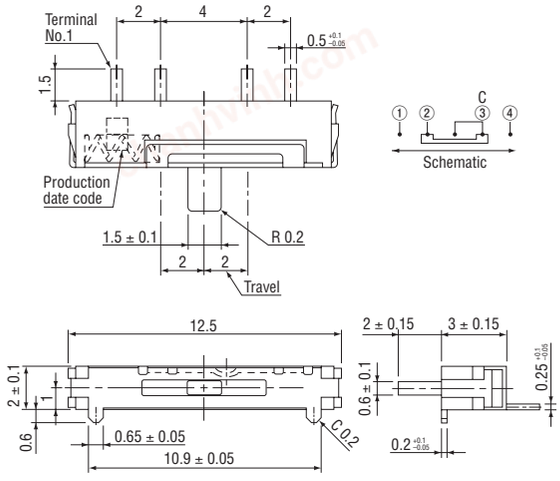

### ● CSS-1211B



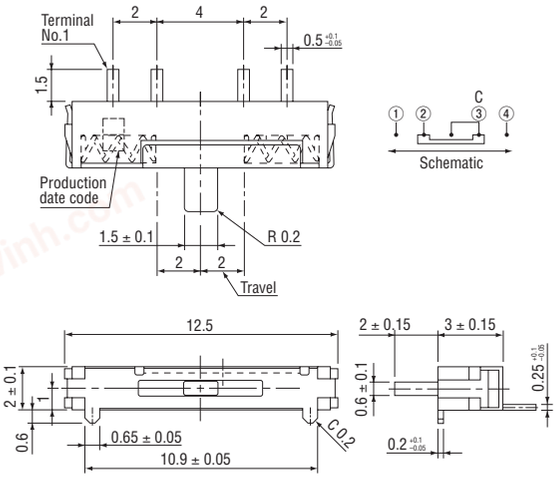

### ● CSS-1310B



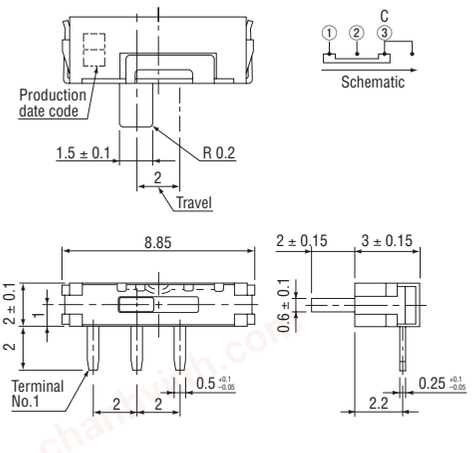

### ● CSS-1311B




### ● CSS-1312B




### ● CSS-1210C



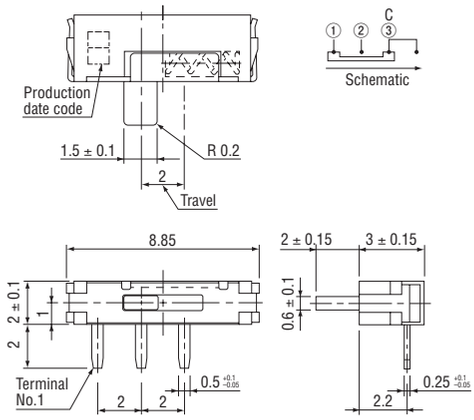
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# CSS
# COMPACT SLIDE SWITCHES

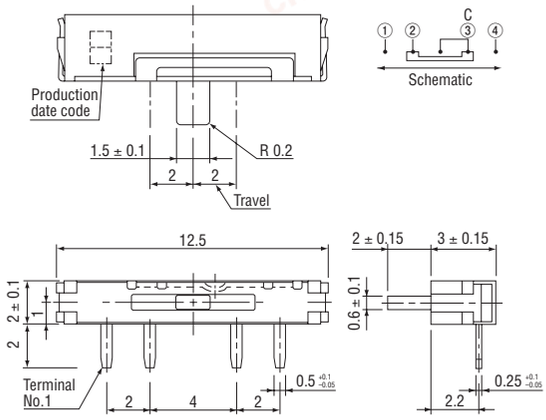
## OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.2 (Unit : mm)

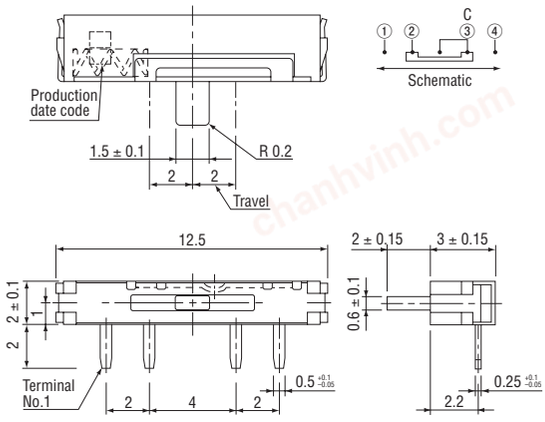
### ● CSS-1211C



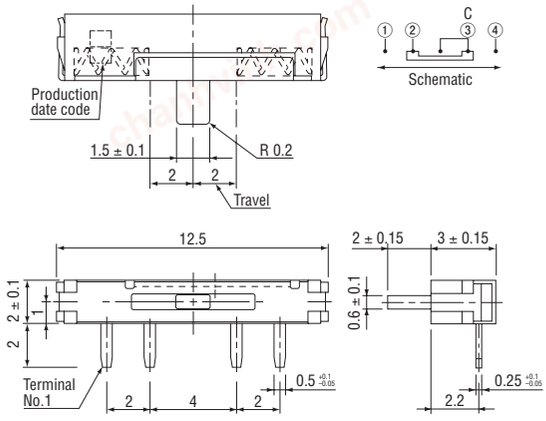

### ● CSS-1310C



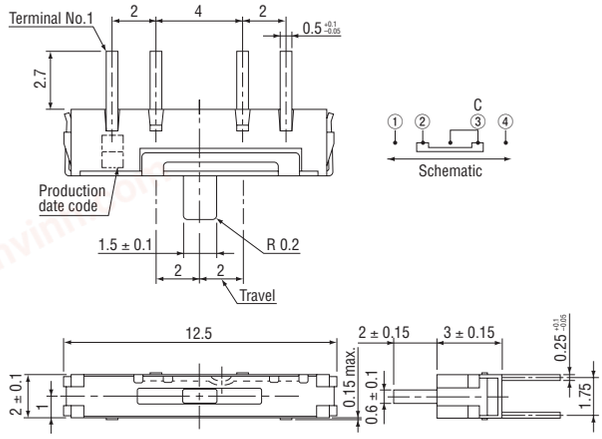

### ● CSS-1311C



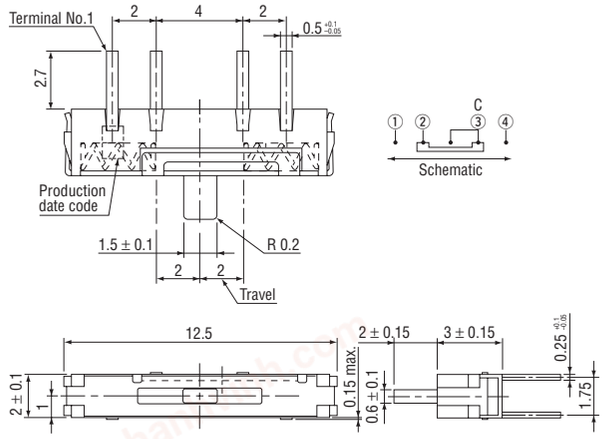

### ● CSS-1312C




### ● CSS-1300C




### ● CSS-1302C

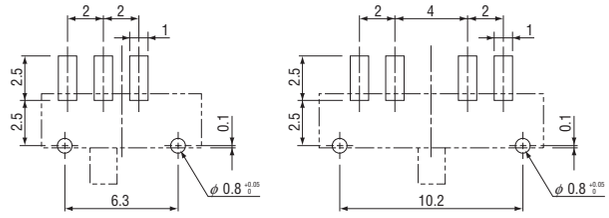


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# CSS
# COMPACT SLIDE SWITCHES

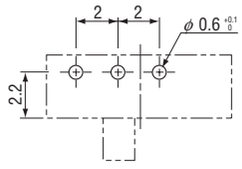
## RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

● CSS-121 □ B ● CSS-131 □ B (Unit : mm)

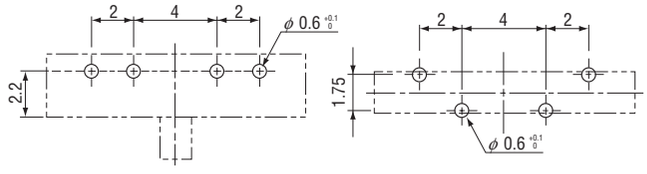



## SIZE OF P.C.B. PROCESSING

● CSS-121 □ C



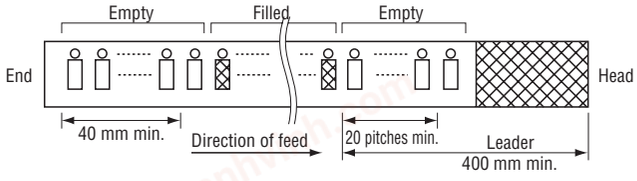

● CSS-131 □ C ● CSS-130 □ C



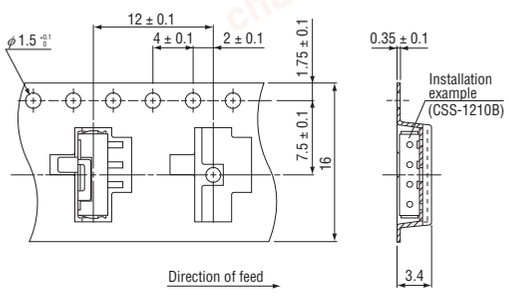

## PACKAGING SPECIFICATIONS

Taping version is packaged in 1900 pcs. par reel.
Taping version is boxed with 1 reel (1900 pcs.).
Maximum number of consecutive missing pieces = 2.
Leader length and reel dimension are shown in the diagrams below.

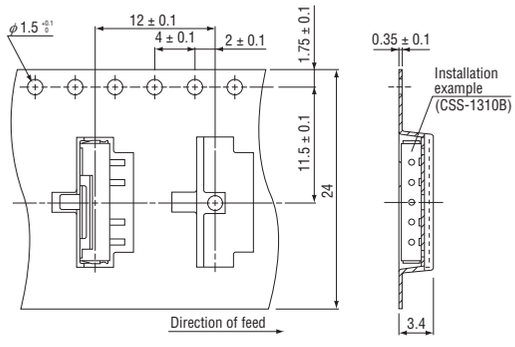
**Embossed tape dimensions**



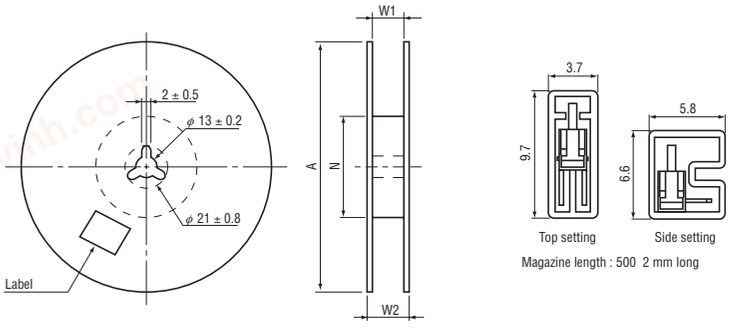

● CSS-121 □ TB




● CSS-131 □ TB




● Reel dimensions (Unit: mm)




| Part number | A | $W_1$ | $W_2$ | N |
|---|---|---|---|---|
| 121 □ TB | ϕ 330 ± 2 | 17.4 ± 1 | 21.4 ± 1 | ϕ 80 ± 1 |
| 131 □ TB | ϕ 330 ± 2 | 25.4 ± 1 | 29.4 ± 1 | ϕ 80 ± 1 |

Packing quantity of magazine

| Part number | Quantity / Stick |
|---|---|
| 12 □□ | 53 |
| 13 □□ | 38 |