**FEATURES**

- RoHS compliant
- Meets EIAJ SOP standard outline dimensions (B type)
- Low profile design of 2.5 mm
- 12 types of 1, 2, 4, 6, 8 or 10 bit with either gull wing or J-hook available
- Excellent contact stability by twin Gold-plated contact

**INTERNAL STRUCTURE**

<table>
<thead>
<tr>
<th>Part name</th>
<th>Material</th>
<th>Flammability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cover</td>
<td>Polyphenylenesulphide</td>
<td></td>
</tr>
<tr>
<td>2 Slider</td>
<td>Polyamide</td>
<td>UL94V-0</td>
</tr>
<tr>
<td>3 Housing</td>
<td>Polyphenylenesulphide</td>
<td></td>
</tr>
<tr>
<td>4 Slider contact</td>
<td>Copper alloy, Gold-plated</td>
<td></td>
</tr>
<tr>
<td>5 Fixed contact</td>
<td>Copper alloy, Gold-plated</td>
<td></td>
</tr>
<tr>
<td>6 Terminal pin</td>
<td>Copper alloy, Gold-plated</td>
<td></td>
</tr>
</tbody>
</table>

**PART NUMBER DESIGNATION**

<table>
<thead>
<tr>
<th>Series name</th>
<th>No. of bits</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHS - 06 A 1</td>
<td></td>
<td>1 : Non-washable type (Without seal tape)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 : Non-washable type (With seal tape)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blank : Washable type (With seal tape)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Form of packaging</th>
<th>Shape of terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>T : Taping (Reel)</td>
<td>A : J-hook</td>
</tr>
<tr>
<td>M : Magazine</td>
<td>B : Gull wing</td>
</tr>
<tr>
<td>Blank : Bulk in plastic bag</td>
<td></td>
</tr>
</tbody>
</table>

※ Please refer to the LIST OF PART NUMBERS when placing orders.
# CHS SLIDE SWITCHES (HALF PITCH)

## LIST OF PART NUMBERS

<table>
<thead>
<tr>
<th>No. of bits</th>
<th>Form of packaging</th>
<th>Shape of terminals</th>
<th>Non-washable type (Without seal tape)</th>
<th>Non-washable type (With seal tape)</th>
<th>Pieces in package</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A (J-hook)</td>
<td>B (Gull wing)</td>
<td>A (J-hook)</td>
</tr>
<tr>
<td>1</td>
<td>Taping</td>
<td></td>
<td>CHS-01TA1</td>
<td>CHS-01TB1</td>
<td>CHS-01TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-01A</td>
<td>CHS-01B</td>
<td>CHS-01A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-01A</td>
<td>CHS-01B</td>
<td>CHS-01A</td>
</tr>
<tr>
<td>2</td>
<td>Taping</td>
<td></td>
<td>CHS-02TA1</td>
<td>CHS-02TB1</td>
<td>CHS-02TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-02A</td>
<td>CHS-02B</td>
<td>CHS-02A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-02A</td>
<td>CHS-02B</td>
<td>CHS-02A</td>
</tr>
<tr>
<td>4</td>
<td>Taping</td>
<td></td>
<td>CHS-04TA1</td>
<td>CHS-04TB1</td>
<td>CHS-04TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-04A</td>
<td>CHS-04B</td>
<td>CHS-04A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-04A</td>
<td>CHS-04B</td>
<td>CHS-04A</td>
</tr>
<tr>
<td>6</td>
<td>Taping</td>
<td></td>
<td>CHS-06TA1</td>
<td>CHS-06TB1</td>
<td>CHS-06TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-06A</td>
<td>CHS-06B</td>
<td>CHS-06A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-06A</td>
<td>CHS-06B</td>
<td>CHS-06A</td>
</tr>
<tr>
<td>8</td>
<td>Taping</td>
<td></td>
<td>CHS-08TA1</td>
<td>CHS-08TB1</td>
<td>CHS-08TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-08A</td>
<td>CHS-08B</td>
<td>CHS-08A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
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<td>CHS-08A</td>
<td>CHS-08B</td>
<td>CHS-08A</td>
</tr>
<tr>
<td>10</td>
<td>Taping</td>
<td></td>
<td>CHS-10TA1</td>
<td>CHS-10TB1</td>
<td>CHS-10TA2</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-10A</td>
<td>CHS-10B</td>
<td>CHS-10A</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-10A</td>
<td>CHS-10B</td>
<td>CHS-10A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of bits</th>
<th>Form of packaging</th>
<th>Shape of terminals</th>
<th>Washable type (With seal tape)</th>
<th>Pieces in package</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A (J-hook)</td>
<td>B (Gull wing)</td>
</tr>
<tr>
<td>1</td>
<td>Taping</td>
<td></td>
<td>CHS-01TA</td>
<td>CHS-01TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-01A</td>
<td>CHS-01B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-01A</td>
<td>CHS-01B</td>
</tr>
<tr>
<td>2</td>
<td>Taping</td>
<td></td>
<td>CHS-02TA</td>
<td>CHS-02TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-02A</td>
<td>CHS-02B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-02A</td>
<td>CHS-02B</td>
</tr>
<tr>
<td>4</td>
<td>Taping</td>
<td></td>
<td>CHS-04TA</td>
<td>CHS-04TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-04A</td>
<td>CHS-04B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-04A</td>
<td>CHS-04B</td>
</tr>
<tr>
<td>6</td>
<td>Taping</td>
<td></td>
<td>CHS-06TA</td>
<td>CHS-06TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-06A</td>
<td>CHS-06B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-06A</td>
<td>CHS-06B</td>
</tr>
<tr>
<td>8</td>
<td>Taping</td>
<td></td>
<td>CHS-08TA</td>
<td>CHS-08TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-08A</td>
<td>CHS-08B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-08A</td>
<td>CHS-08B</td>
</tr>
<tr>
<td>10</td>
<td>Taping</td>
<td></td>
<td>CHS-10TA</td>
<td>CHS-10TB</td>
</tr>
<tr>
<td></td>
<td>Magazine</td>
<td></td>
<td>CHS-10A</td>
<td>CHS-10B</td>
</tr>
<tr>
<td></td>
<td>Plastic bag</td>
<td></td>
<td>CHS-10A</td>
<td>CHS-10B</td>
</tr>
</tbody>
</table>

☐: Not manufactured
※ Verify the above part numbers when placing orders.
  Taping and magazine version can be supplied only in reel or stick units.
### STANDARD SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temp. range</td>
<td>−40 ~ 85 °C</td>
</tr>
<tr>
<td>Storage temp. range</td>
<td>Washable type available with seal tape</td>
</tr>
<tr>
<td>Sealing</td>
<td>Approx. 0.05 g (CHS-01) Approx. 0.08 g (CHS-02) Approx. 0.12 g (CHS-04) Approx. 0.17 g (CHS-06) Approx. 0.22 g (CHS-08) Approx. 0.25 g (CHS-10)</td>
</tr>
<tr>
<td>Net weight</td>
<td>Approx. 0.05 g (CHS-01) Approx. 0.08 g (CHS-02) Approx. 0.12 g (CHS-04) Approx. 0.17 g (CHS-06) Approx. 0.22 g (CHS-08) Approx. 0.25 g (CHS-10)</td>
</tr>
</tbody>
</table>

### ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact rating</td>
<td>DC50 V 100 mA DC6 V, 100 mA DC24 V, 25 mA DC20 mV 1 μA</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>50 mΩ maximum</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>1000 MΩ (DC100 V) minimum</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>AC500 V, 60 s</td>
</tr>
</tbody>
</table>

### MECHANICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating force</td>
<td>0.5 ~ 5 N (0.05 ~ 0.51 kgf)</td>
</tr>
<tr>
<td>Stop strength</td>
<td>10 N (1.02 kgf), 60 s</td>
</tr>
<tr>
<td>Solderability</td>
<td>245 ± 3 °C, 2 ~ 3 s</td>
</tr>
<tr>
<td>Soldering heat</td>
<td>Reflow : 255 °C (Peak temperature) (Please refer to the profile below) Manual soldering : 350 ± 10 °C, 3 ~ 4 s</td>
</tr>
<tr>
<td>Shear (Adhesion)</td>
<td>5 N (0.51 kgf) 10 s</td>
</tr>
<tr>
<td>Substrate bending</td>
<td>Width 90 mm, bend 3 mm, 5 s, 1 time</td>
</tr>
<tr>
<td>Pull-off strength</td>
<td>5 N (0.51 kgf) 10 s</td>
</tr>
</tbody>
</table>

( ) : Reference only

### ENVIRONMENTAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibration</td>
<td>(Amplitude) 1.5 mm or (Acceleration) 98 m/s², 10-500 Hz, 3 directions for 10 cycles each</td>
</tr>
<tr>
<td>Shock</td>
<td>490 m/s², 11 ms 6 directions for 3 times each</td>
</tr>
<tr>
<td>Load life</td>
<td>Continuous load 2000 cycles, DC6 ± 0.5 V, 100 ± 10 mA</td>
</tr>
<tr>
<td>Humidity</td>
<td>–10 ~ 65 °C, Relative humidity 0 ~ 96 %, 24 h for 10 cycles</td>
</tr>
<tr>
<td>High temp. exposure</td>
<td>85 °C, 96 h</td>
</tr>
<tr>
<td>Low temp. exposure</td>
<td>–40 °C, 96 h</td>
</tr>
<tr>
<td>Thermal shock</td>
<td>–40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles</td>
</tr>
</tbody>
</table>

### Reflow profile for soldering heat evaluation

![Reflow profile for soldering heat evaluation](image)

- Peak : 250 °C
- Over 230 °C
- Pre Heating Zone
- 180 °C
- 150 °C
- 90 ± 30 s
- 30 ± 10 s
- Heating time
- Soldering Zone

Reflow : two times maximum
CHS
SLIDE SWITCHES (HALF PITCH)

■ OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.3 (Unit : mm)

● CHS-01A1
Non-washable type
(Without seal tape)

● CHS-02A1
Non-washable type
(Without seal tape)

● CHS-01B1
Non-washable type
(Without seal tape)

● CHS-02B1
Non-washable type
(Without seal tape)

(In accordance with EIAJ ED-7402-1)
## OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

- **CHS-04A1**  
  Non-washable type  
  (Without seal tape)

- **CHS-04B1**  
  (In accordance with EIAJ ED-7402-1)  
  Non-washable type  
  (Without seal tape)

- **CHS-06A1**  
  Non-washable type  
  (Without seal tape)

- **CHS-06B1**  
  (In accordance with EIAJ ED-7402-1)  
  Non-washable type  
  (Without seal tape)
CHS
SLIDE SWITCHES (HALF PITCH)

OUTLINE DIMENSIONS

- **CHS-08A1**
  Non-washable type
  (Without seal tape)

- **CHS-08B1**
  (In accordance with EIAJ ED-7402-1)
  Non-washable type
  (Without seal tape)

- **CHS-10A1**
  Non-washable type
  (Without seal tape)

- **CHS-10B1**
  (In accordance with EIAJ ED-7402-1)
  Non-washable type
  (Without seal tape)

Unless otherwise specified, tolerance : ± 0.3 (Unit : mm)
OUTLINE DIMENSIONS

- **CHS-01A**
  Washable type (With seal tape)

- **CHS-01TA2**
  Non-washable type (With seal tape)

- **CHS-01B**
  Washable type (With seal tape)

- **CHS-01TB2**
  Non-washable type (With seal tape)

- **CHS-02A**
  Washable type (With seal tape)

- **CHS-02TA2**
  Non-washable type (With seal tape)

- **CHS-02B**
  Washable type (With seal tape)

- **CHS-02TB2**
  Non-washable type (With seal tape)

(In accordance with EIAJ ED-7402-1)

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)
CHS
SLIDE SWITCHES (HALF PITCH)

■ OUTLINE DIMENSIONS

- CHS-04A
  Washable type (With seal tape)
- CHS-04TA2
  Non-washable type (With seal tape)
- CHS-04B
  Washable type (With seal tape)
- CHS-04TB2
  Non-washable type (With seal tape)
  (In accordance with EIAJ ED-7402-1)

- CHS-06A
  Washable type (With seal tape)
- CHS-06TA2
  Non-washable type (With seal tape)
- CHS-06B
  Washable type (With seal tape)
- CHS-06TB2
  Non-washable type (With seal tape)
  (In accordance with EIAJ ED-7402-1)

Unless otherwise specified, tolerance : ± 0.3 (Unit : mm)
### OUTLINE DIMENSIONS

- **CHS-08A**
  Washable type (With seal tape)
- **CHS-08TA2**
  Non-washable type (With seal tape)
- **CHS-08B**
  Washable type (With seal tape)
- **CHS-08TB2**
  Non-washable type (With seal tape)

- **CHS-10A**
  Washable type (With seal tape)
- **CHS-10TA2**
  Non-washable type (With seal tape)
- **CHS-10B**
  Washable type (With seal tape)
- **CHS-10TB2**
  Non-washable type (With seal tape)

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)
OUTLINE DIMENSIONS

The D version with opposite pin direction is available upon receipt of your order.

CHS-08D

RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

1 bit

A type

B type

2 bits

A type

B type

Note) The zero point is the center of mounting.
RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

- **4 bits**
  - **A type**
    - 1.27N (N=1–3) = 3.81
    - 16 x 5.08 x 0.76

- **6 bits**
  - **A type**
    - 1.27N (N=1–5) = 6.35
    - 16 x 5.08 x 0.76

- **8 bits**
  - **A type**
    - 1.27N (N=1–7) = 8.89
    - 22 x 5.08 x 0.76

- **10 bits**
  - **A type**
    - 1.27N (N=1–9) = 11.43
    - 27 x 5.08 x 0.76

- **B type**
  - 1.27N (N=1–3) = 3.81
  - 16 x 5.08 x 0.76

- **B type**
  - 1.27N (N=1–5) = 6.35
  - 22 x 7.62 x 0.76

- **B type**
  - 1.27N (N=1–7) = 8.89
  - 27 x 7.62 x 0.76

- **B type**
  - 1.27N (N=1–9) = 11.43
  - 27 x 7.62 x 0.76

(Units: mm)

Note: The zero point is the center of mounting.
CHS SLIDE SWITCHES (HALF PITCH)

PACKAGING SPECIFICATIONS

<Taping packaging specifications>
- Taping version (CHS-02 ~ 10 types) are packaged in 500 pcs. per reel. Orders will be accepted for units of 500 pcs., i.e., 500, 1000, 1500 pcs., etc.
- CHS-01 type is packaged in 1000 pcs. per reel. Orders will be accepted for units of 1000 pcs., i.e., 2000, 3000 pcs., etc.
- Taping version is boxed with two reels.
- Maximum number of consecutive missing pieces=2
- Leader length and reel dimension are shown in the diagrams below:

Embossed tape dimensions

- Embossed tape dimensions (Conforms to JIS C 0806-3)
- Reel dimensions (In accordance with EIAJ ET-7200A)

1 bit

- Installation example

2 bits

- Installation example

(Conforms to JIS C 0806)
4 bits

6 bits

8 bits

10 bits
<Magazine packaging specifications>

- Packing quantities of magazines are different depending on the bit number of the switches.
- Please order the multiple numbers of the specific packing quantities. (e.g. 70 pcs., 140 pcs., 210 pcs., etc., in case of 4 bits version)

  Pieces in package:
  - 4 bits, 70 pcs./stick
  - 6 bits, 50 pcs./stick
  - 8 bits, 40 pcs./stick
  - 10 bits, 30 pcs./stick

● Magazine dimensions (Unit: mm)

  ※ The magazine is common to A and B terminal pin.
  Magazine length: 500 ± 2 mm long

  ※ The magazine is common to A and B terminal pin.

<Bulk pack specifications>

- The smallest unit of bulk pack in a plastic bag is 10 pcs. per pack.
- Orders will be accepted for unit of minimum 10 pcs., i.e., 10, 20, 30 pcs., etc.

● Boxing of bulk in a plastic bag is performed with 50 pcs. (standard 200 pcs.) per box.