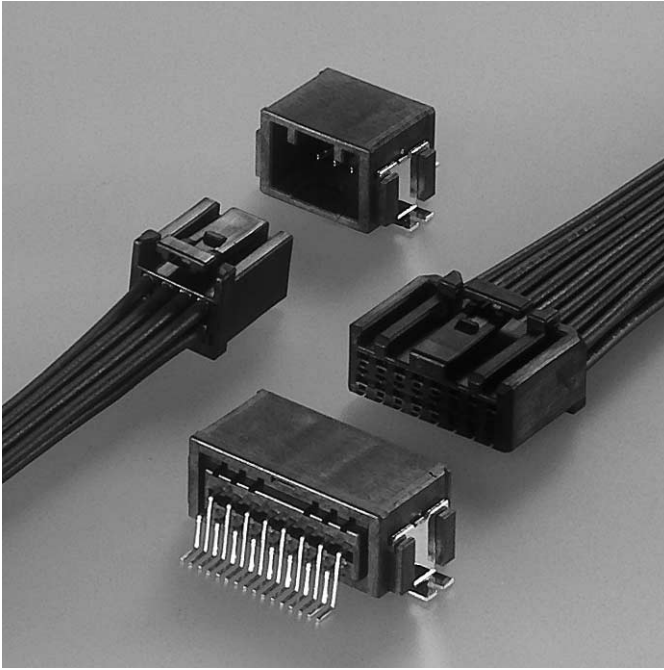


# CPT CONNECTOR

## Board-to-wire



### Features

#### ● Compact design

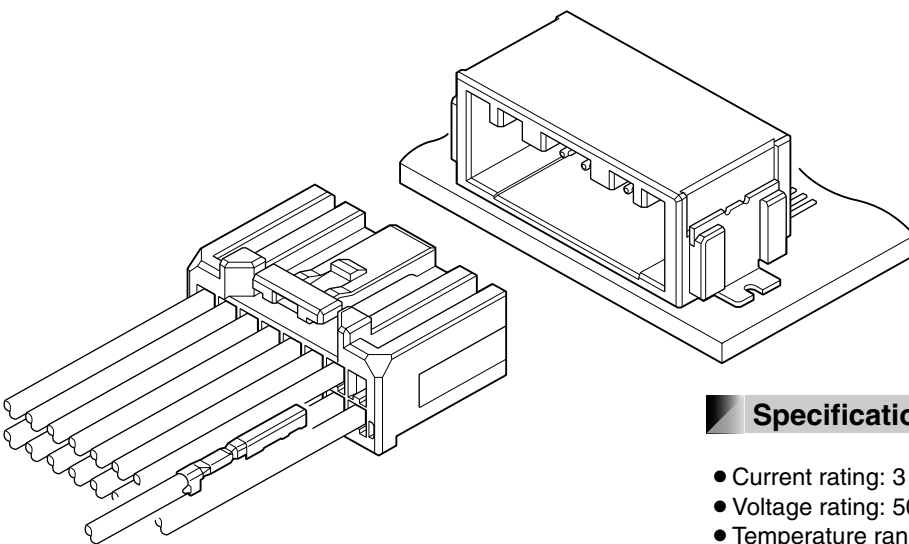
2.0 mm pitch is realized miniaturization and low profile as the connector for automobile.

#### ● Terminal construction

Female terminal is designed for simple box structure by having spring structure on male terminal.

Developed in pursuit of miniaturization and low profile as PC board connector for automobile.

This connector is surface mounting type connector having the spring structure on male terminal disproving the conventional concept.



### Specifications

- Current rating: 3 A AC, DC (0.3 mm<sup>2</sup>, Single circuit)
- Voltage rating: 50 V AC, DC
- Temperature range: -40°C to +100°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 8 mΩ max.  
After environmental tests/ 16 mΩ max.
- Insulation resistance: 100 MΩ min.
- Withstanding voltage: 1,000 VAC/minute
- Applicable wire: AESX-f/ AVSS  
0.3 mm<sup>2</sup>

\* Compliant with ELV/RoHS.

\* Contact JST for details.

## Female terminal



| Model No.              | Applicable wire range        |                      | Q'ty/reel |
|------------------------|------------------------------|----------------------|-----------|
|                        | Conductor (mm <sup>2</sup> ) | Insulation O.D. (mm) |           |
| <b>SCPT-A021GF-0.5</b> | 0.3                          | 1.4                  | 15,000    |

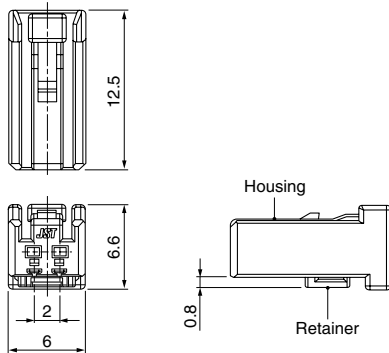
### Material and Finish

Brass, nickel-undercoated, Contact area; gold-plated  
Barrel area; tin-plated

## Female connector

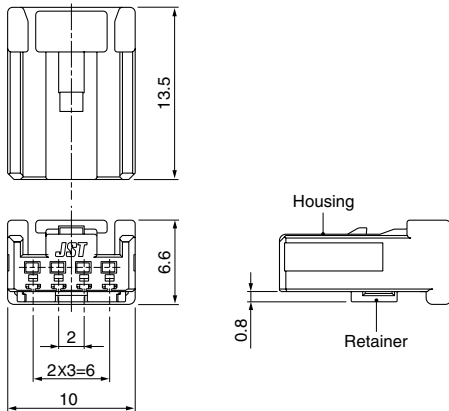
### Single row

#### • 2 circuits



#### • 4 circuits

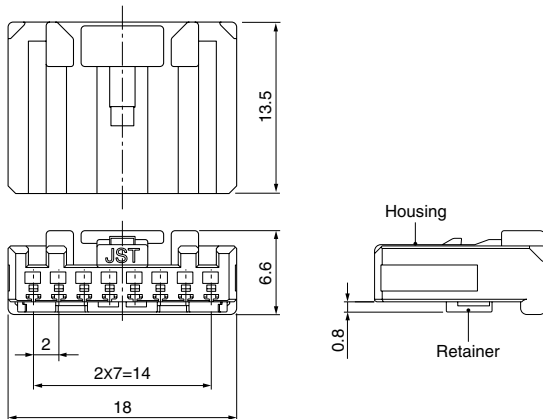
##### 04CPT-B1-2A



##### 04CPT-B1-2B



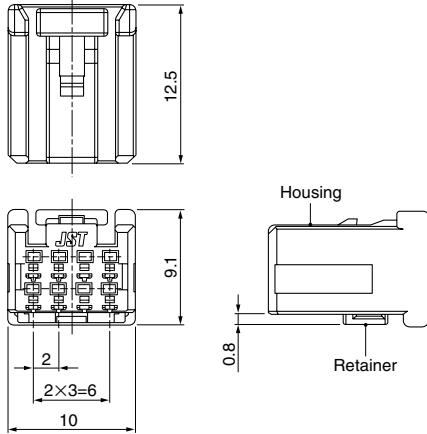
#### • 8 circuits



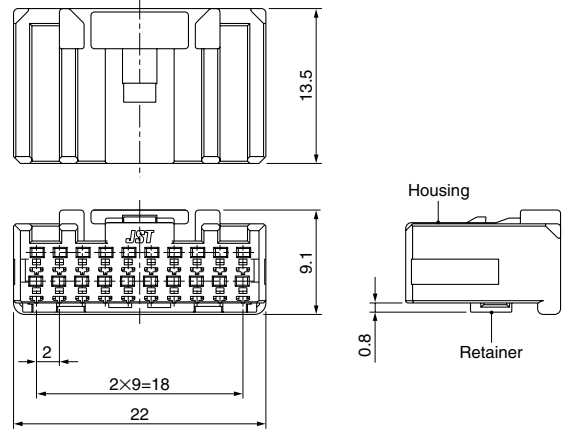
## Female connector

### Double row

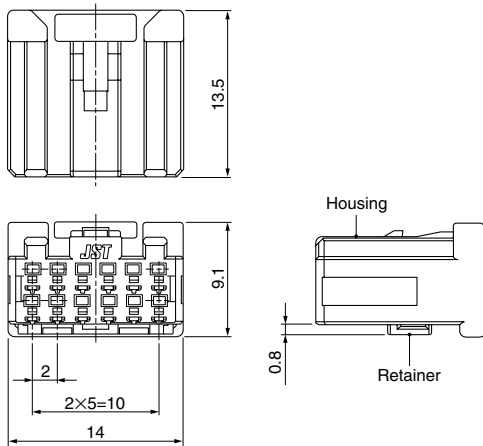
#### • 8 circuits



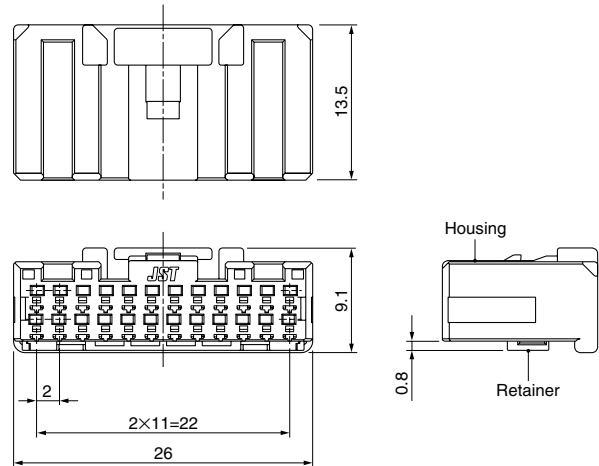
#### • 20 circuits



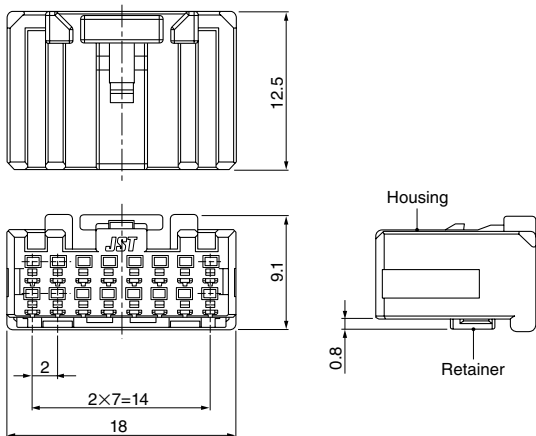
#### • 12 circuits



#### • 24 circuits



#### • 16 circuits



| Type       | Circuits | Model No.          | Q'ty/box |
|------------|----------|--------------------|----------|
| Single row | 2        | <b>02CPT-B-2A</b>  | 500      |
|            | 4        | <b>04CPT-B1-2A</b> | 600      |
|            |          | <b>04CPT-B1-2B</b> |          |
| Double row | 8        | <b>08CPT-B1-2A</b> | 400      |
|            | 8        | <b>08CPT-B-2A</b>  | 500      |
|            | 12       | <b>12CPT-B-2A</b>  | 300      |
|            | 16       | <b>16CPT-B-2A</b>  | 250      |
|            | 20       | <b>20CPT-B-2A</b>  | 250      |
|            | 24       | <b>24CPT-B-2A</b>  | 200      |

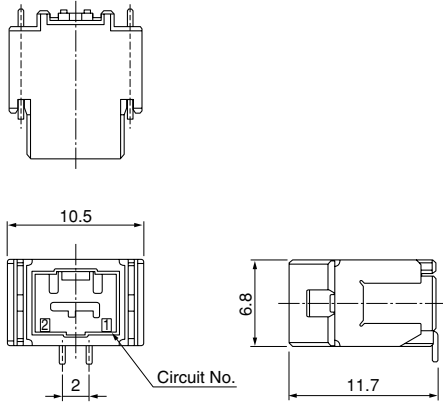
#### Material and Finish

Housing: Glass-filled PBT, Black  
 Retainer: Glass-filled PBT, Blue

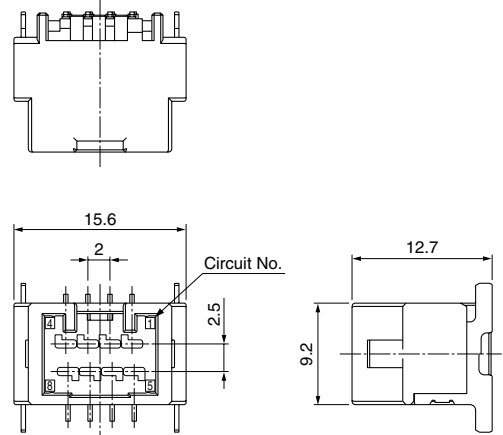
## Male connector

### Top entry type

Single row  
● 2 circuits

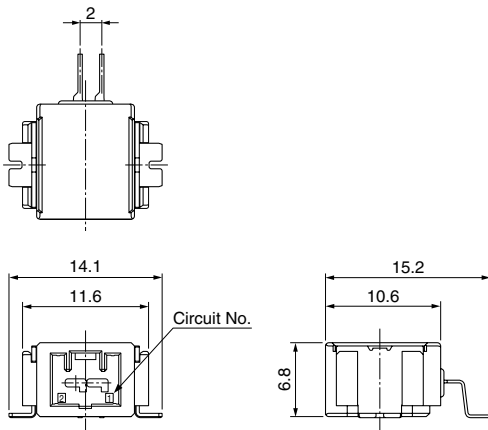


Double row  
● 8 circuits



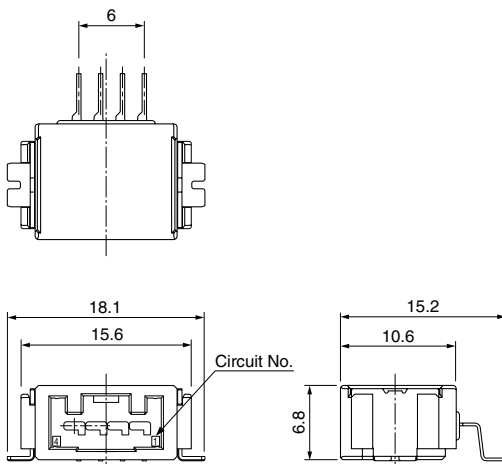
### Side entry type

Single row  
● 2 circuits

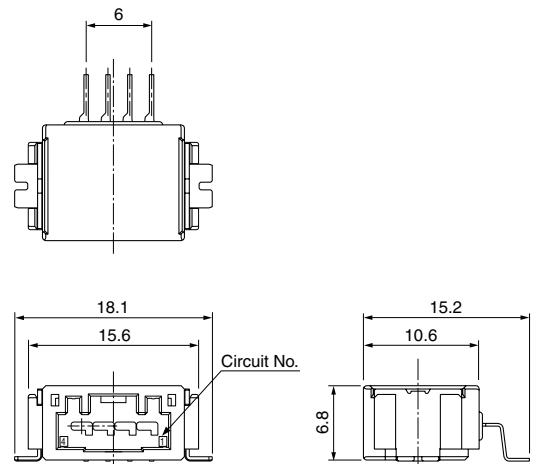


● 4 circuits

SM04B1-CPTK-1A-TB



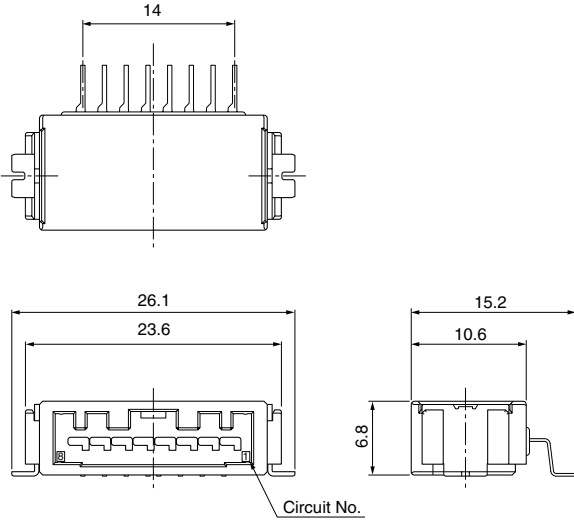
SM04B1-CPTK-1B-TB



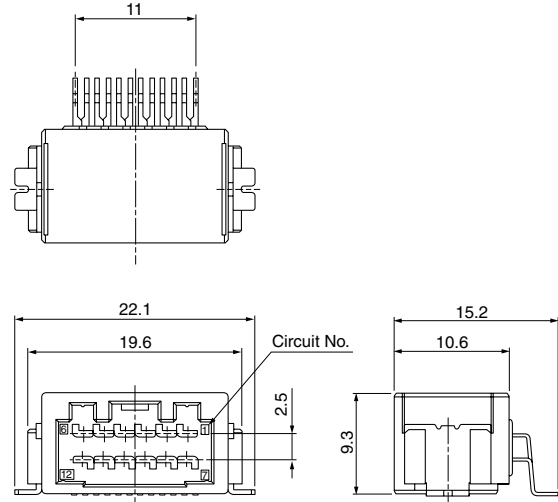
## Male connector

### Side entry type Single row

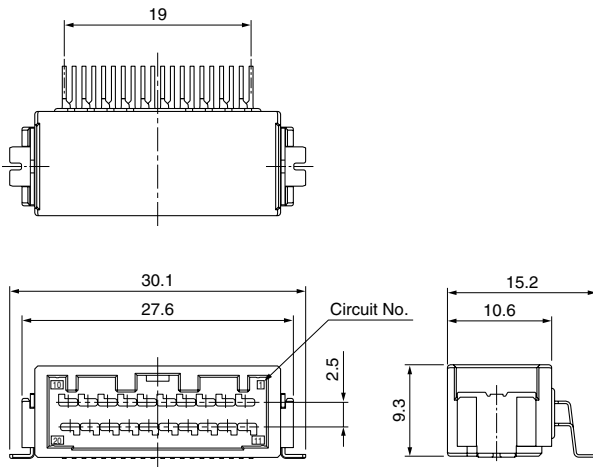
#### • 8 circuits



#### • 12 circuits



#### • 20 circuits

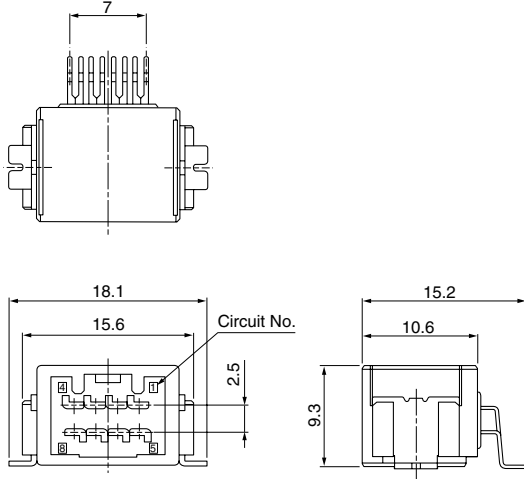


## Male connector

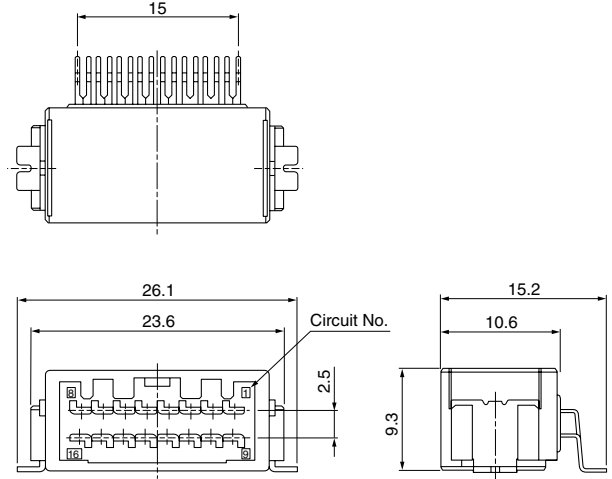
### Side entry type

#### Double row

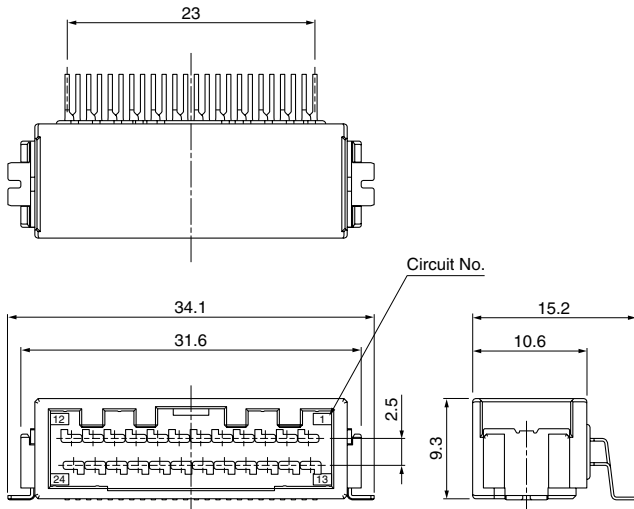
#### ● 8 circuits



#### ● 16 circuits



#### ● 24 circuits



| Type        | Circuits                | Model No.                | Q'ty/reel |
|-------------|-------------------------|--------------------------|-----------|
| Top type    | 2 (Single)              | <b>BM02B-CPTK-1A-TB</b>  | 370       |
|             | 8 (Double)              | <b>BM08B-CPTK-1A-TB</b>  | 240       |
| Side type   | 2 (Single)              | <b>SM02B-CPTK-1A-TB</b>  | 500       |
|             | 4 (Single)              | <b>SM04B1-CPTK-1A-TB</b> | 500       |
|             |                         | <b>SM04B1-CPTK-1B-TB</b> |           |
|             | 8 (Single)              | <b>SM08B1-CPTK-1A-TB</b> | 500       |
|             | 8 (Double)              | <b>SM08B-CPTK-1A-TB</b>  | 390       |
|             | 12 (Double)             | <b>SM12B-CPTK-1A-TB</b>  | 390       |
|             | 16 (Double)             | <b>SM16B-CPTK-1A-TB</b>  | 390       |
|             | 20 (Double)             | <b>SM20B-CPTK-1A-TB</b>  | 390       |
| 24 (Double) | <b>SM24B-CPTK-1A-TB</b> | 390                      |           |

#### Material and Finish

Terminal: Copper alloy, nickel-undercoated,  
Contact area; gold-plated  
Solder tail; tin-plated (reflow treatment)

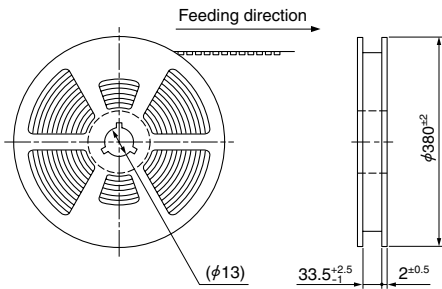
Housing: Glass-filled LCP, Black

Peg: Brass, nickel-undercoated, tin-plated (reflow treatment)

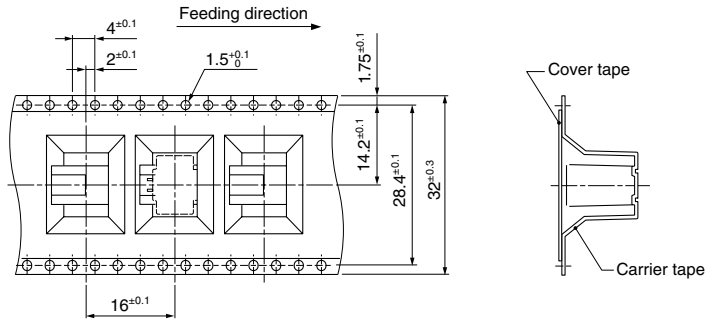
## Taping Specifications

### Top entry type

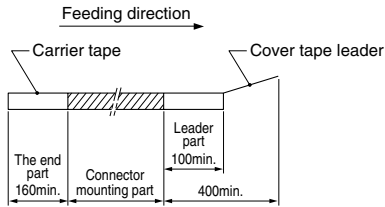
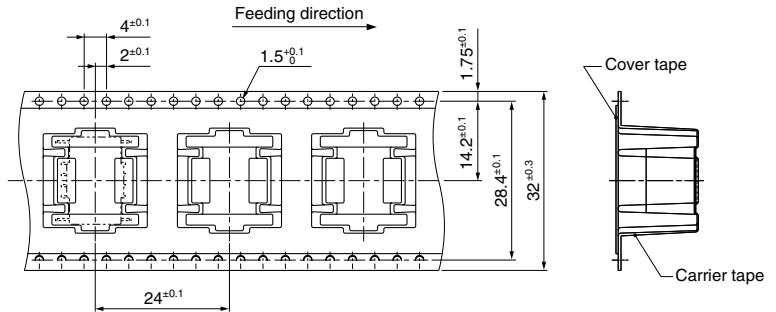
#### ● 2, 8 circuits



#### ● 2 circuits

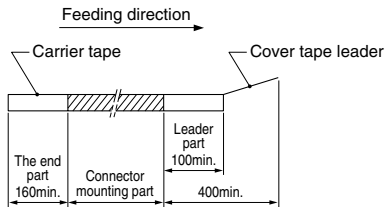
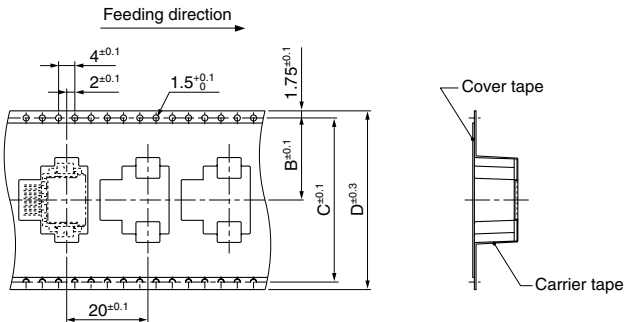
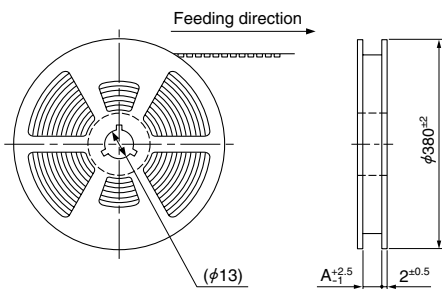


#### ● 8 circuits



### Side entry type

#### ● 2, 4, 8, 12, 16, 20, 24 circuits

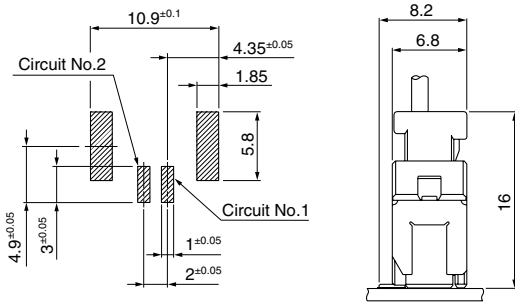


| Type   | Circuits | A    | B    | C    | D  |
|--------|----------|------|------|------|----|
| Single | 2        | 33.5 | 14.2 | 28.4 | 32 |
|        | 4        | 33.5 | 14.2 | 28.4 | 32 |
|        | 8        | 45.5 | 20.2 | 40.4 | 44 |
| Double | 8        | 45.5 | 20.2 | 40.4 | 44 |
|        | 12       | 45.5 | 20.2 | 40.4 | 44 |
|        | 16       | 45.5 | 20.2 | 40.4 | 44 |
|        | 20       | 45.5 | 20.2 | 40.4 | 44 |
|        | 24       | 57.5 | 26.2 | 52.4 | 56 |

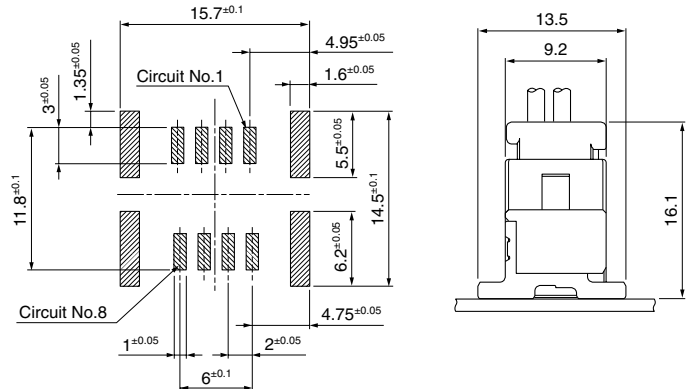
## PC board layout, Assembly layout

### Top entry type

#### ● 2 circuits

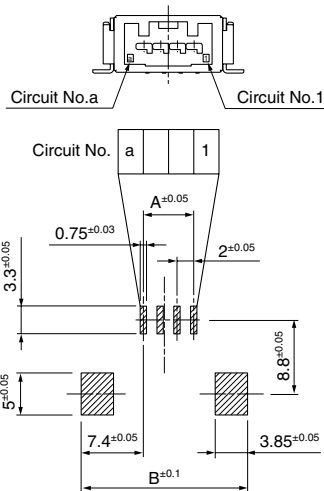


#### ● 8 circuits



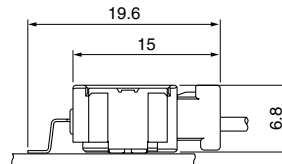
### Side entry type

#### ● 2, 4, 8 (Single) circuits

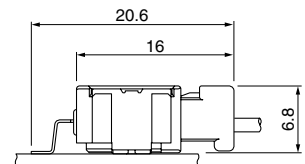


| Circuits   | A  | B    |
|------------|----|------|
| 2          | 2  | 15.8 |
| 4          | 6  | 19.8 |
| 8 (Single) | 14 | 27.8 |

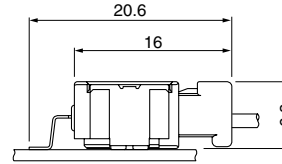
#### ● 2 circuits



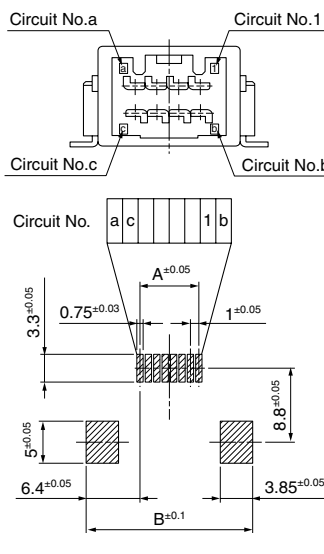
#### ● 4 circuits



#### ● 8 (Single) circuits

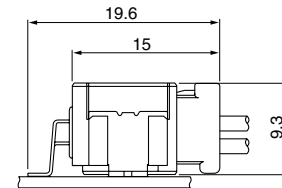


#### ● 8 (Double), 12, 16, 20, 24 circuits

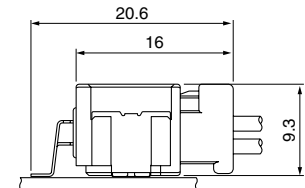


| Circuits   | A  | B    |
|------------|----|------|
| 8 (Double) | 7  | 19.8 |
| 12         | 11 | 23.8 |
| 16         | 15 | 27.8 |
| 20         | 19 | 31.8 |
| 24         | 23 | 35.8 |

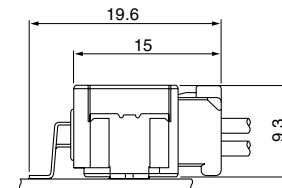
#### ● 8 (Double) circuits



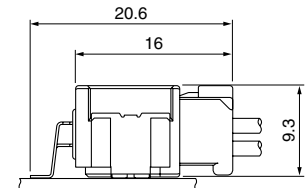
#### ● 12 circuits



#### ● 16 circuits



#### ● 20, 24 circuits



Note: 1. Tolerances are non-cumulative: ±0.05 mm for all centers.

2. The dimensions above should serve as guideline. Contact JST for details.

## Crimping machine, Applicator

| Strip terminal  | Crimping machine | Crimp applicator MKS-L |                            |
|-----------------|------------------|------------------------|----------------------------|
|                 |                  | Dies                   | Crimp applicator with dies |
| SCPT-A021GF-0.5 | AP-K2N           | MK/SCPT-A021-05        | APLMK SCPT-A021-05         |

Note: When crimping operation is conducted using an applicator and die set other than the above, JST cannot guarantee the performance of the terminal.



# Mouser Electronics

Authorized Distributor

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## JST:

[02CPT-B-2A](#) [BM08B-CPTK-1A-TB](#) [SM02B-CPTK-1A-TB](#) [SM12B-CPTK-1A-TBL](#) [SM08B-CPTK-1A-TBL](#) [04CPT-B1-2A](#) [16CPT-B-2A](#) [BM02B-CPTK-1A-TB](#) [SM16B-CPTK-1A-TBL](#) [20CPT-B-2A](#) [12CPT-B-2A](#) [SM04B1-CPTK-1A-TB](#) [SM20B-CPTK-1A-TBL](#) [08CPT-B-2A](#) [SCPT-A021GF-0.5](#) [24CPT-B-2A](#) [SM24B-CPTK-1A-TB\(L\)](#)