



# XH CONNECTOR

2.5mm pitch/Disconnectable Crimp style connectors



The XH connector was developed based on the high reliability and versatility of our NH series connectors. The connector is very small with a mounting height of 9.8mm.

- Original folded beam contact
- Box-shaped shrouded header
- Header with a boss
- Interchangeability
- Conforming to the HA terminal

## Specifications

- Current rating: 3 A AC, DC (AWG #22)
  - Voltage rating: 250 V AC, DC
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/ 10 mΩ max.  
After environmental tests/ 20 mΩ max.
  - Insulation resistance: 1,000 MΩ min.
  - Withstanding voltage: 1,000 VAC/minute
  - Applicable wire: AWG #30 to #22
  - Applicable PC board thickness: 1.6 mm
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.  
\* Contact JST for details.  
\* Compliant with RoHS.

## Standards

- Ⓜ Recognized E60389
- Ⓢ Certified LR20812
- Ⓜ J50014297

## PC board layout and Assembly layout

### <Through-hole type (viewed from soldering side)>

#### Top entry type



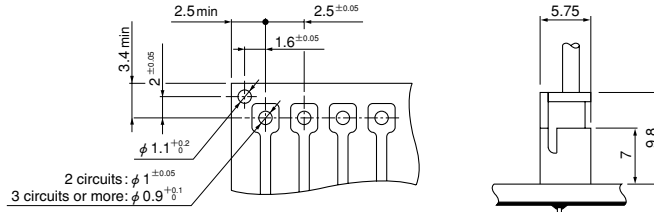
#### Side entry type



#### Top entry type with a boss <Single circuit>



#### <2 circuits or more>



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

2. Hole dimensions differ according to the type of PC board and piercing method. If PC boards made of hard material are used, the hole dimensions should be larger. The dimensions above should serve as a guideline. Contact JST for details.

### <SMT type (viewed from component side)>

#### Side entry type

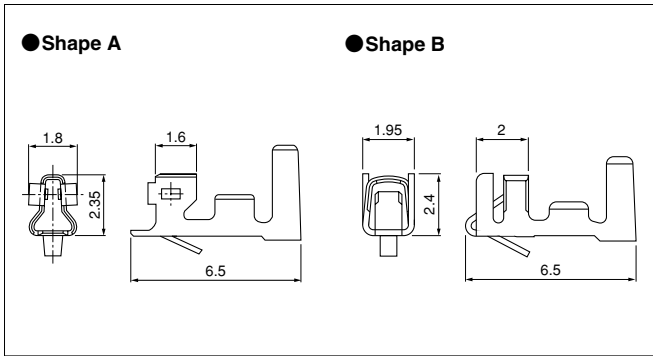


Note: 1. Tolerances are non-cumulative: ±0.05 mm for all centers.

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

# XH CONNECTOR

## Contact



| Contact        | Crimping machine | Applicator       |                |                            |
|----------------|------------------|------------------|----------------|----------------------------|
|                |                  | Crimp applicator | Dies           | Crimp applicator with dies |
| SXH-001T-P0.6N | AP-K2N           | MKS-L            | MK/SXH-001-06N | APLMK SXH001-06N           |
|                |                  | *MKS-SC          | SC/SXH-001-06N | APLSC SXH001-06N           |
| SXH-001T-P0.6  | AP-K2N           | MKS-L            | MK/SXH-001-06  | APLMK SXH001-06            |
|                |                  | *MKS-SC          | SC/SXH-001-06  | APLSC SXH001-06            |

Note: \*Strip-crimp applicator

| Model No.      | Shape | Applicable Wire |       | Insulation O.D (mm) | Q'ty/reel |
|----------------|-------|-----------------|-------|---------------------|-----------|
|                |       | mm <sup>2</sup> | AWG#  |                     |           |
| SXH-001T-P0.6N | A     | 0.13~0.33       | 26~22 | 1.3~1.9             | 5,000     |
| SXH-001T-P0.6  | B     | 0.08~0.33       | 28~22 | 0.9~1.9             | 8,000     |
| SXH-002T-P0.6  |       | 0.05~0.13       | 30~26 | 0.9~1.3             |           |

### Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

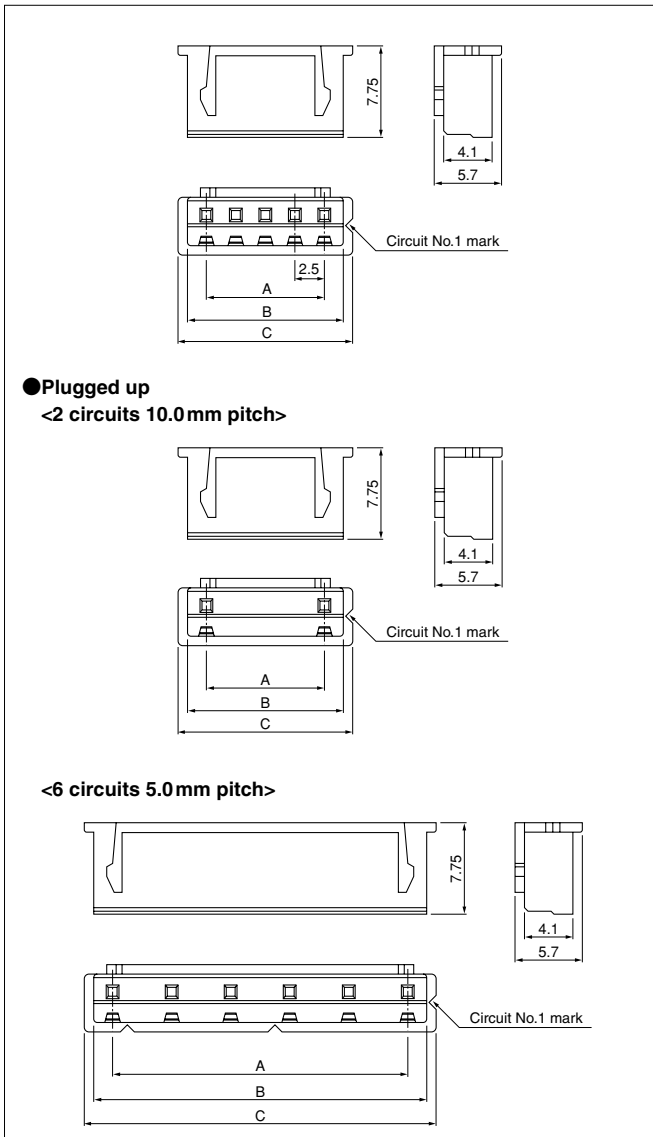
### RoHS compliance

Note:

- Contact JST if you require gold-plated contacts or contacts made of brass.
- Contact JST also if you require shielded wires, thin wires or other special wires.
- SXH-001T-P0.6N is low-insertion force type contact, for easier insertion/withdrawal, which would be less resistant to the vibration.

| Contact       | Crimping machine | Applicator       |               |                            |
|---------------|------------------|------------------|---------------|----------------------------|
|               |                  | Crimp applicator | Dies          | Crimp applicator with dies |
| SXH-002T-P0.6 | AP-K2N           | MKS-L            | MK/SXH-002-06 | APLMK SXH002-06            |
|               |                  | *MKS-SC          | SC/SXH-002-06 | APLSC SXH002-06            |

## Housing



| Circuits | Model No.     | Dimensions (mm) |      |      | Q'ty/bag |
|----------|---------------|-----------------|------|------|----------|
|          |               | A               | B    | C    |          |
| 1        | XHP-1         | —               | 3.2  | 4.8  | 1,000    |
| 2        | XHP-2         | 2.5             | 5.7  | 7.3  | 1,000    |
| 2        | XHP-2(10.0)-U | 10.0            | 13.2 | 14.8 | 1,000    |
| 3        | XHP-3         | 5.0             | 8.2  | 9.8  | 1,000    |
| 4        | XHP-4         | 7.5             | 10.7 | 12.3 | 1,000    |
| 5        | XHP-5         | 10.0            | 13.2 | 14.8 | 1,000    |
| 6        | XHP-6         | 12.5            | 15.7 | 17.3 | 1,000    |
| 6        | XHP-6(5.0)-U  | 25.0            | 28.2 | 29.8 | 1,000    |
| 7        | XHP-7         | 15.0            | 18.2 | 19.8 | 1,000    |
| 8        | XHP-8         | 17.5            | 20.7 | 22.3 | 1,000    |
| 9        | XHP-9         | 20.0            | 23.2 | 24.8 | 1,000    |
| 10       | XHP-10        | 22.5            | 25.7 | 27.3 | 1,000    |
| 11       | XHP-11        | 25.0            | 28.2 | 29.8 | 1,000    |
| 12       | XHP-12        | 27.5            | 30.7 | 32.3 | 1,000    |
| 13       | XHP-13        | 30.0            | 33.2 | 34.8 | 1,000    |
| 14       | XHP-14        | 32.5            | 35.7 | 37.3 | 1,000    |
| 15       | XHP-15        | 35.0            | 38.2 | 39.8 | 1,000    |
| 16       | XHP-16        | 37.5            | 40.7 | 42.3 | 1,000    |
| 20       | XHP-20        | 47.5            | 50.7 | 52.3 | 500      |

### Material

PA 6, UL94V-0, natural (white)

### RoHS compliance

Note:

- XHP-2(10.0)-U is 2 circuits 10.0mm pitch plugged up. Not UL/CSA/TÜV approved.
- XHP-6(5.0)-U is 6 circuits 5.0mm pitch plugged up. Not UL/CSA/TÜV approved.

<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. **XHP-1-oo**  
(blank)...natural (white)  
BK...black R...red E...blue Y...yellow L...lemon yellow  
M...green D...orange N...brown FY...vivid yellow

<Plugged up type>

ex. **XHP-2(10.0)-U-oo**  
(blank)...natural (white)  
R...red E...blue

# XH CONNECTOR

## Through-hole type shrouded header

The shrouded headers are interchangeable with those of the NR and NRD insulation displacement connectors, and JQ board-to-board connectors.



| Circuits | Model No.        |                 |           | Dimensions (mm) |      | Q'ty/box       |                 |
|----------|------------------|-----------------|-----------|-----------------|------|----------------|-----------------|
|          | Top entry type   | Side entry type |           | A               | B    | Top entry type | Side entry type |
| 2        | B2B-XH-A         | S2B-XH-A-1      | S2B-XH-A  | 2.5             | 7.4  | 1,000          | 1,000           |
| 2        | B2(10.0)B-XH-A-U | —               | —         | 10.0            | 14.9 | 1,000          | —               |
| 3        | B3B-XH-A         | S3B-XH-A-1      | S3B-XH-A  | 5.0             | 9.9  | 1,000          | 1,000           |
| 4        | B4B-XH-A         | S4B-XH-A-1      | S4B-XH-A  | 7.5             | 12.4 | 500            | 500             |
| 5        | B5B-XH-A         | S5B-XH-A-1      | S5B-XH-A  | 10.0            | 14.9 | 500            | 500             |
| 6        | B6B-XH-A         | S6B-XH-A-1      | S6B-XH-A  | 12.5            | 17.4 | 500            | 500             |
| 7        | B7B-XH-A         | S7B-XH-A-1      | S7B-XH-A  | 15.0            | 19.9 | 500            | 250             |
| 8        | B8B-XH-A         | S8B-XH-A-1      | S8B-XH-A  | 17.5            | 22.4 | 250            | 250             |
| 9        | B9B-XH-A         | S9B-XH-A-1      | S9B-XH-A  | 20.0            | 24.9 | 250            | 250             |
| 10       | B10B-XH-A        | S10B-XH-A-1     | S10B-XH-A | 22.5            | 27.4 | 250            | 250             |
| 11       | B11B-XH-A        | S11B-XH-A-1     | S11B-XH-A | 25.0            | 29.9 | 250            | 250             |
| 12       | B12B-XH-A        | S12B-XH-A-1     | S12B-XH-A | 27.5            | 32.4 | 250            | 200             |
| 13       | B13B-XH-A        | S13B-XH-A-1     | S13B-XH-A | 30.0            | 34.9 | 250            | 200             |
| 14       | B14B-XH-A        | S14B-XH-A-1     | S14B-XH-A | 32.5            | 37.4 | 250            | 200             |
| 15       | B15B-XH-A        | S15B-XH-A-1     | S15B-XH-A | 35.0            | 39.9 | 250            | 100             |
| 16       | B16B-XH-A        | —               | S16B-XH-A | 37.5            | 42.4 | 200            | 100             |
| 20       | B20B-XH-A        | —               | —         | 47.5            | 52.4 | 100            | —               |

### Material and Finish

Post: Brass, copper-undercoated, tin-plated (reflow treatment)  
Wafer: PA 66, UL94V-0, natural (white)

**RoHS compliance** This product displays (LF)(SN) on a label.

Note: B2(10.0)B-XH-A-U is 2 circuits 10.0mm pitch plugged up.

Not UL/CSA/TÜV approved.

<For reference> As the color identification, the following alphabet shall be put in the underlined part.  
For availability, delivery and minimum order quantity, contact JST.

ex. **S3B-XH-A(1)-oo**

(blank)...natural (white)

BK...black R...red E...blue Y...yellow L...lemon yellow

M...green D...orange N...brown FY...vivid yellow

## Through-hole type shrouded header



| Circuits | Model No. | Dimensions (mm) |      | Q'ty/bag |
|----------|-----------|-----------------|------|----------|
|          |           | A               | B    |          |
| 2        | B2B-XH-2  | 2.5             | 7.4  | 1,000    |
| 3        | B3B-XH-2  | 5.0             | 9.9  | 1,000    |
| 4        | B4B-XH-2  | 7.5             | 12.4 | 500      |
| 5        | B5B-XH-2  | 10.0            | 14.9 | 500      |
| 6        | B6B-XH-2  | 12.5            | 17.4 | 500      |
| 7        | B7B-XH-2  | 15.0            | 19.9 | 500      |
| 8        | B8B-XH-2  | 17.5            | 22.4 | 250      |
| 9        | B9B-XH-2  | 20.0            | 24.9 | 250      |
| 10       | B10B-XH-2 | 22.5            | 27.4 | 250      |
| 11       | B11B-XH-2 | 25.0            | 29.9 | 250      |
| 12       | B12B-XH-2 | 27.5            | 32.4 | 250      |
| 13       | B13B-XH-2 | 30.0            | 34.9 | 250      |
| 14       | B14B-XH-2 | 32.5            | 37.4 | 250      |
| 15       | B15B-XH-2 | 35.0            | 39.9 | 250      |

### Material and Finish

Post: Brass, copper-undercoated, tin-plated (reflow treatment)  
Wafer: Glass-filled PA 66, UL94V-0, natural (ivory)

**RoHS compliance** This product displays (LF)(SN) on a label.

<For reference> As the color identification, the following alphabet shall be put in the underlined part.  
For availability, delivery and minimum order quantity, contact JST.

ex. **B2B-XH-2-oo**

(blank)...natural (ivory)

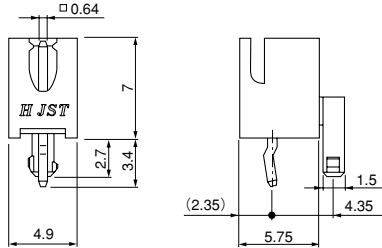
C...black R...red E...blue Y...yellow M...green

## Through-hole type shrouded header

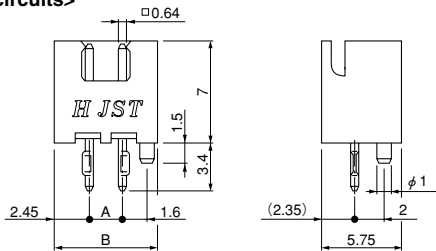
The shrouded headers are interchangeable with those of the NR and NRD insulation displacement connectors, and JQ board-to-board connectors.

### Top entry type with a boss

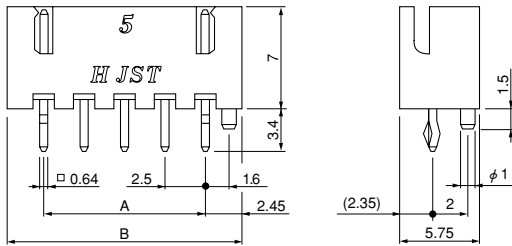
#### <Single circuit>



#### <2 circuits>



#### <3 circuits or more>



| Circuits | Model No.         | Dimensions (mm) |      | Q'ty/box |
|----------|-------------------|-----------------|------|----------|
|          |                   | A               | B    |          |
| 1        | <b>*B1B-XH-AM</b> | —               | —    | 1,000    |
| 2        | <b>B2B-XH-AM</b>  | 2.5             | 7.4  | 1,000    |
| 3        | <b>B3B-XH-AM</b>  | 5.0             | 9.9  | 1,000    |
| 4        | <b>B4B-XH-AM</b>  | 7.5             | 12.4 | 500      |
| 5        | <b>B5B-XH-AM</b>  | 10.0            | 14.9 | 500      |
| 6        | <b>B6B-XH-AM</b>  | 12.5            | 17.4 | 500      |
| 7        | <b>B7B-XH-AM</b>  | 15.0            | 19.9 | 500      |
| 8        | <b>B8B-XH-AM</b>  | 17.5            | 22.4 | 250      |
| 9        | <b>B9B-XH-AM</b>  | 20.0            | 24.9 | 250      |
| 10       | <b>B10B-XH-AM</b> | 22.5            | 27.4 | 250      |
| 12       | <b>B12B-XH-AM</b> | 27.5            | 32.4 | 250      |

#### Material and Finish

Post: Brass, copper-undercoated, tin-plated (reflow treatment)  
Wafer: PA 66, UL94V-0, natural (white)

**RoHS compliance** This product displays (LF)(SN) on a label.  
Note: \*Marked product is not approved by UL/CSA/TÜV standards.

<For reference> As the color identification, the following alphabet shall be put in the underlined part.  
For availability, delivery and minimum order quantity, contact JST.

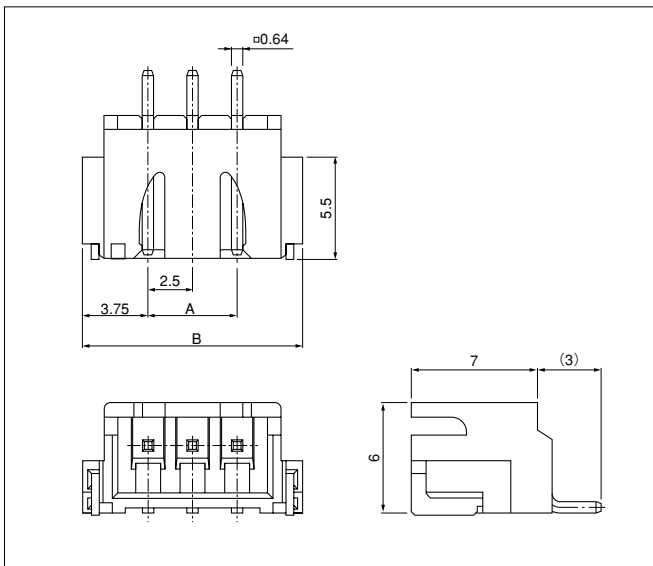
ex. **B1B-XH-AM-oo**

(blank)...natural (white)

BK...black R...red E...blue Y...yellow L...lemon yellow

M...green

## SMT type shrouded header



| Circuits | Model No.            | Dimensions (mm) |      | Q'ty/reel |
|----------|----------------------|-----------------|------|-----------|
|          |                      | A               | B    |           |
| 3        | <b>S3B-XH-SM4-TB</b> | 5.0             | 12.5 | 500       |
| 4        | <b>S4B-XH-SM4-TB</b> | 7.5             | 15.0 | 500       |
| 6        | <b>S6B-XH-SM4-TB</b> | 12.5            | 20.0 | 500       |

#### Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)  
Wafer: PA 6T, UL94V-0, natural (ivory)  
Solder tab: Brass, copper-undercoated, tin-plated (reflow treatment)

**RoHS compliance** This product displays (LF)(SN) on a label.  
Note: The products listed above are supplied on embossed-tape.

<For reference> As the color identification, the following alphabet shall be put in the underlined part.  
For availability, delivery and minimum order quantity, contact JST.

ex. **S3B-XH-SM4-oo-TB**

(blank)...natural (ivory)

M...green R...red E...blue L...lemon yellow

# XH CONNECTOR

## Through-hole type shrouded header on radial-tape



| Circuits | Model No.         |                     | Dimensions (mm) |      | Q'ty/<br>box |
|----------|-------------------|---------------------|-----------------|------|--------------|
|          | TV4               | 2-TV4               | A               | B    |              |
| 2        | —                 | <b>B2B-XH-2-TV4</b> | —               | —    | 1,000        |
| 3        | <b>B3B-XH-TV4</b> | <b>B3B-XH-2-TV4</b> | 5.0             | 9.9  | 1,000        |
| 4        | <b>B4B-XH-TV4</b> | <b>B4B-XH-2-TV4</b> | 7.5             | 12.4 | 500          |
| 5        | —                 | <b>B5B-XH-2-TV4</b> | 10.0            | 14.9 | 500          |
| 6        | —                 | <b>B6B-XH-2-TV4</b> | 12.5            | 17.4 | 500          |
| 7        | —                 | <b>B7B-XH-2-TV4</b> | 15.0            | 19.9 | 500          |
| 8        | —                 | <b>B8B-XH-2-TV4</b> | 17.5            | 22.4 | 500          |

### Material and Finish

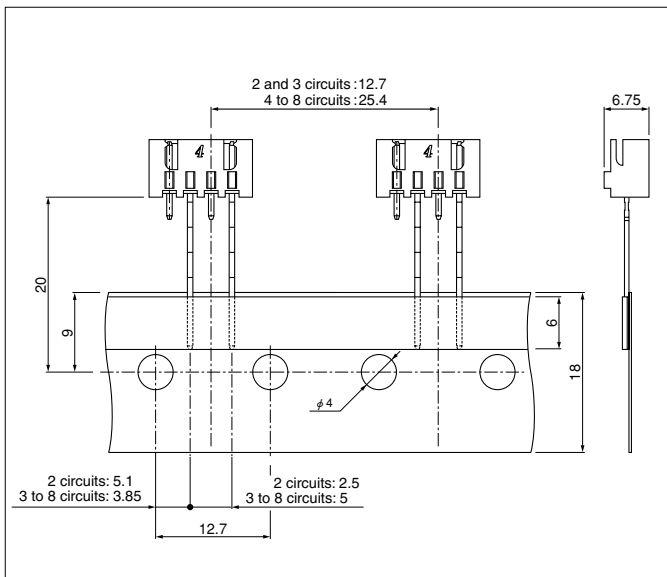
Post: Brass, copper-undercoated, tin-plated (reflow treatment)  
 Wafer: TV4 type/ PA 66, UL94V-0, natural (white)  
 2-TV4 type/ Glass-filled PA 66, UL94V-0, natural (ivory)

**RoHS compliance** This product displays (LF)(SN) on a label.

<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

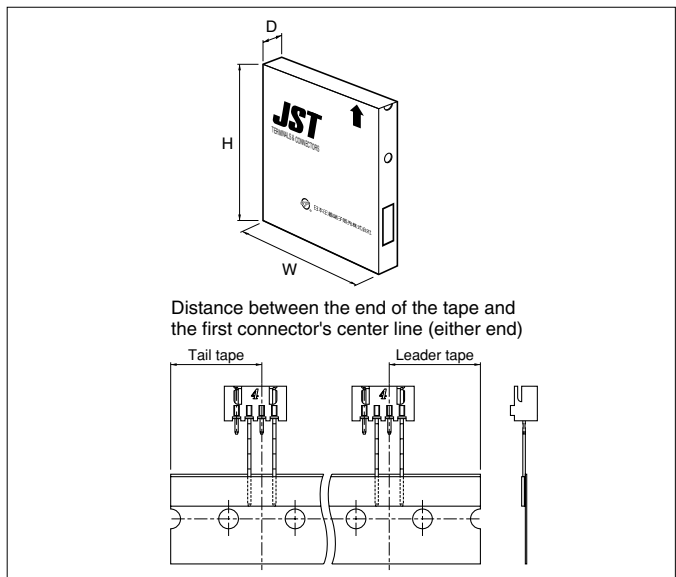
ex. **B2B-XH-2-TV4-oo**  
 (blank)...natural (TV4 type/white, 2-TV4 type/ivory)  
 C...black (glass-filled) BK...black R...red E...blue Y...yellow  
 M...green

## Taping specification



Note: Conforms to JIC C 0806 of "Tape packaging of components with unidirectional leads on continuous tapes".

## Packaging specifications



|   |                                       |                  |
|---|---------------------------------------|------------------|
| Package type  | Flat pack (zigzag folded)             |                  |
| Distance between folds  | 24 indexing holes per fold (304.8 mm) |                  |
| Box size  | 316(W)×45(D)×330(H) mm                |                  |
| Distance between the end of the tape and the first connector's center line (either end) | 19.05 mm                              |                  |
| Quantity  | 2, 3 circuits                         | 1,000 pcs. / box |
|   | 4~8 circuits                          | 500 pcs. / box   |

Note: Products of different packaging specifications are also available. Contact JST for details.