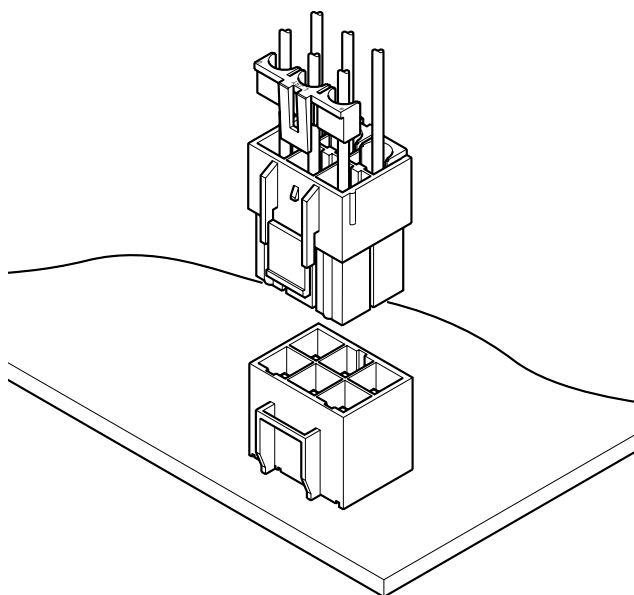


# VL CONNECTOR

## 6.2mm pitch/Disconnectable Crimp style connectors



**This VL connector is designed for wire-to-wire and wire-to-board 6.2mm pitch connector corresponding to large current. Secondary retainer, which prevents from insufficient insertion of contact and coming off contact, may use and large current circuit can be connected certainly and safety.**

- Housing lances for contact retention
- Secondary retainer
- Suited for large current
- Two kinds of connections

## Specifications

- Current rating: 20A AC, DC (Refer to the table below.)
- Voltage rating: 600V AC, DC
- Temperature range: -25°C to +90°C (including temperature rise in applying electrical current)
- Contact resistance: Initial value/7m Ω max. After environmental testing/10m Ω max.
- Insulation resistance: 1,000M Ω min.
- Withstanding voltage: 2,000V AC/minute
- Applicable wire: AWG #22 to #12
- Applicable PC board thickness: 1.6mm
- \* Compliant with RoHS.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

Note: The current rating differs depending on the number of circuits and the wire size used in each connector. The table below lists the current rating as a function of the number of circuits and the wire size.

| Circuits | Wire size(AWG) |      |      |      |      |      |
|----------|----------------|------|------|------|------|------|
|          | # 12           | # 14 | # 16 | # 18 | # 20 | # 22 |
| 2        | 20             | 15   | 10   | 8    | 6    | 4    |
| 3        | 17             | 14   | 9    | 8    | 6    | 4    |
| 4        | 16             | 13   | 9    | 7    | 6    | 4    |
| 6        | 15             | 12   | 8    | 7    | 5    | 3    |
| 8        | 14             | 11   | 7    | 6    | 5    | 3    |
| 12       | 13             | 10   | 7    | 6    | 4    | 3    |

Current unit:A

Note: Do not branch in parallel current which exceeds the rated current (eg. more than 17A in the case of 3 circuits with AWG #12). If branched in parallel, current imbalance or other problems may develop. If it is absolutely necessary to branch such a large current in parallel, design the circuits without causing any imbalance and provide an extra margin for each circuit.

## Standards

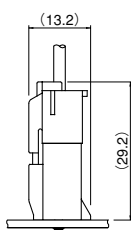
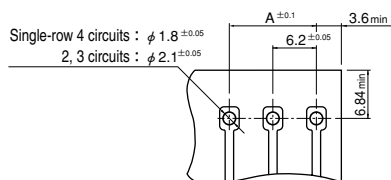
Recognized E60389

Certified LR20812

R9351103

## PC board layout (viewed from soldering side) and Assembly layout

### (2, 3, Single-row 4 circuits)

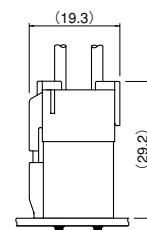
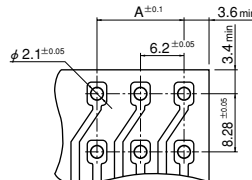


<Inner-housing lock>

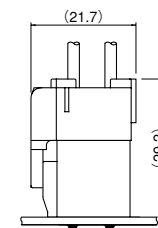


<Outer-housing lock>

### (4, 6, 8, 12 circuits)



<Inner-housing lock>



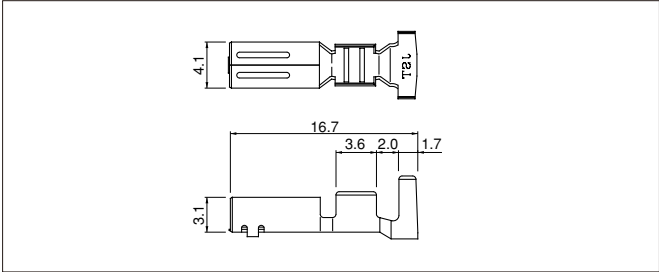
<Outer-housing lock>

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

2. Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

# VL CONNECTOR

## Contact



| Model No.     | Applicable wire |       | Insulation O.D.(mm) | Q'ty / reel |
|---------------|-----------------|-------|---------------------|-------------|
|               | mm²             | AWG # |                     |             |
| *SVF-42T-P2.0 | 0.3~1.25        | 22~16 | 1.7~3.2             | 2,000       |
| SVF-61T-P2.0  | 0.5~2.0         | 20~14 | 1.9~3.4             | 2,000       |
| SVF-81T-P2.0  | 3.5             | 12    | 4.1                 | 2,000       |

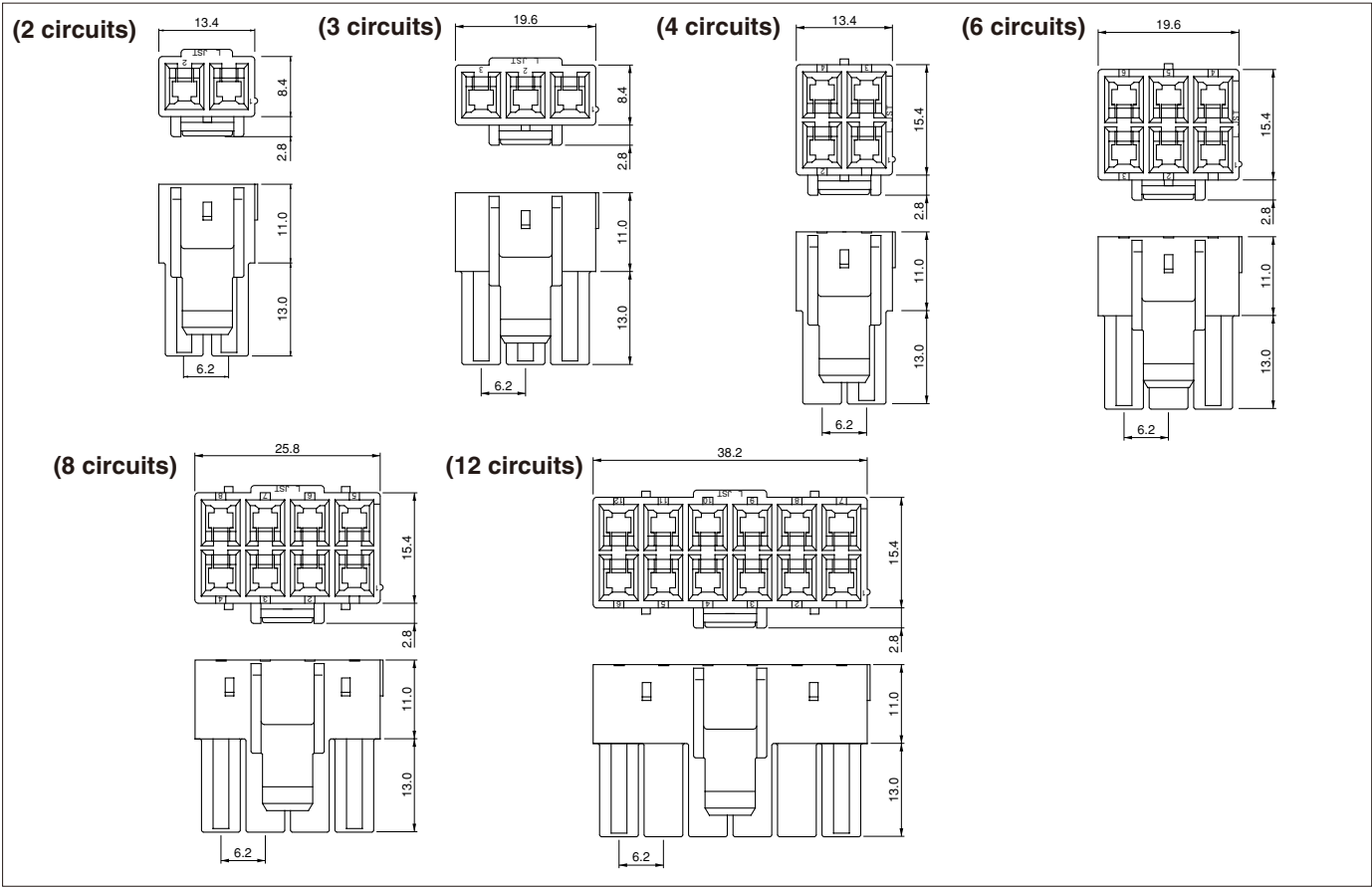
| Material and Finish                            |  |  |  |  |
|------------------------------------------------|--|--|--|--|
| Phosphor bronze, tin-plated (reflow treatment) |  |  |  |  |

**RoHS compliance**  
Note: \*Marked product is not TÜV approved.

| Contact      | Crimping machine | Applicator       |                |                            |
|--------------|------------------|------------------|----------------|----------------------------|
|              |                  | Crimp applicator | Dies           | Crimp applicator with dies |
| SVF-42T-P2.0 | AP-K2N           | MKS-L            | MK/SVF/M-42-20 | APLMK SVF/M42-20           |
| SVF-61T-P2.0 |                  | MKS-L            | MK/SVF/M-61-20 | APLMK SVF/M61-20           |

| Contact      | Crimping machine | Applicator       |                |                            |
|--------------|------------------|------------------|----------------|----------------------------|
|              |                  | Crimp applicator | Dies           | Crimp applicator with dies |
| SVF-81T-P2.0 | AP-K2N           | MKS-L            | MK/SVF/M-81-20 | APLMK SVF/M81-20           |

## Housing (Inner-housing lock)



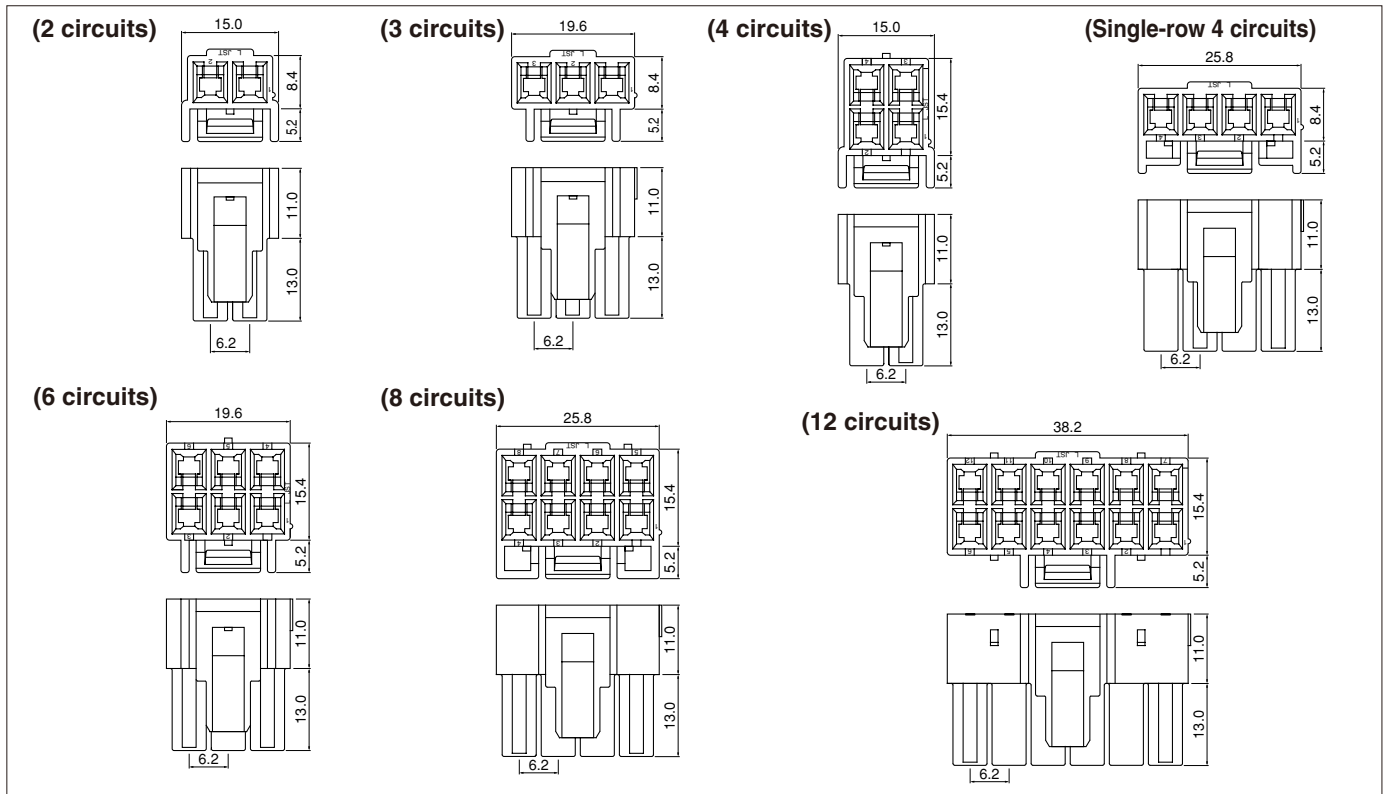
| Circuits | Model No. | Q'ty / bag |
|----------|-----------|------------|
| 2        | VLP-02V   | 500        |
| 3        | VLP-03V   | 500        |
| 4        | VLP-04V   | 500        |
| 6        | VLP-06V   | 500        |
| 8        | VLP-08V   | 200        |
| 12       | VLP-12V   | 100        |
| Material |           |            |

PA 66, UL94V-0, natural (white)

RoHS compliance

# VL CONNECTOR

## Housing (Outer-housing lock)

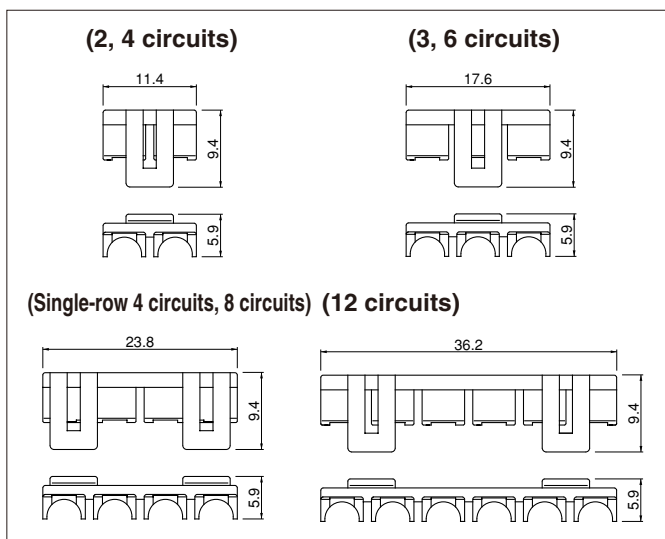


| Circuits       | Model No.  | Q'ty / bag |
|----------------|------------|------------|
| 2              | VLP-02V-1  | 500        |
| 3              | VLP-03V-1  | 500        |
| 4              | VLP-04V-1  | 500        |
| 4 (single-row) | VLP-04VN-1 | 500        |
| 6              | VLP-06V-1  | 500        |
| 8              | VLP-08V-1  | 200        |
| 12             | VLP-12V-1  | 100        |
| Material       |            |            |

PA 66, UL94V-0, natural (white)

RoHS compliance

## Retainer



| Circuits          | Model No. | Q'ty / bag |
|-------------------|-----------|------------|
| 2, 4              | VLS-02V   | 1,000      |
| 3, 6              | VLS-03V   | 1,000      |
| 4 (single-row), 8 | VLS-08V   | 1,000      |
| 12                | VLS-12V   | 1,000      |
| Material          |           |            |

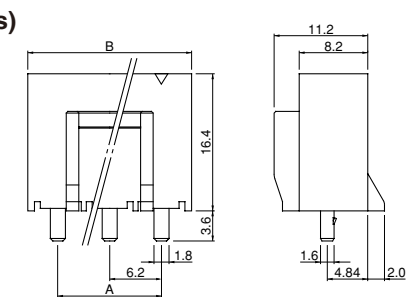
Glass-filled PA 66, UL94V-0, natural (ivory)

RoHS compliance

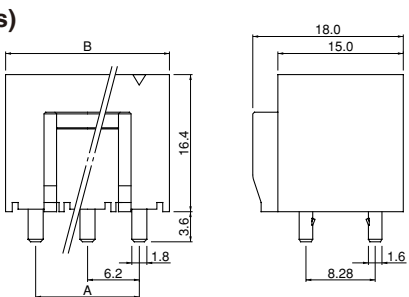
# VL CONNECTOR

## Shrouded header

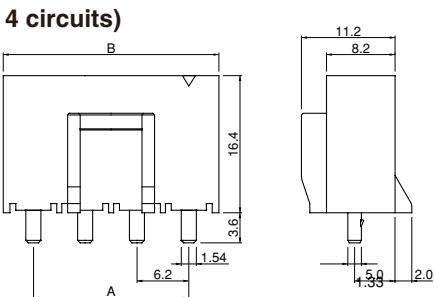
(2, 3 circuits)



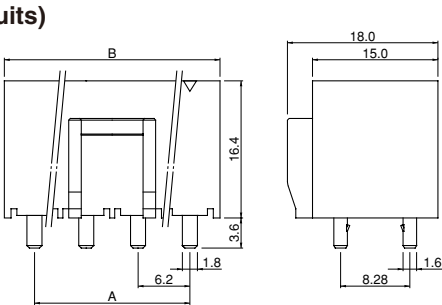
(4, 6 circuits)



(Single-row 4 circuits)



(8, 12 circuits)



| Circuits      | Model No.      | Dimensions (mm) |      | Q'ty / box |
|---------------|----------------|-----------------|------|------------|
|               |                | A               | B    |            |
| 2             | B02P-VL        | 6.2             | 13.4 | 100        |
| 3             | B03P-VL        | 12.4            | 19.6 | 100        |
| 4             | B04P-VL        | 6.2             | 13.4 | 100        |
| 4(single-row) | B04P-VL-VN-1.8 | 18.6            | 26.2 | 100        |
| 6             | B06P-VL        | 12.4            | 19.6 | 50         |
| 8             | B08P-VL        | 18.6            | 26.2 | 50         |
| 12            | B12P-VL        | 31.0            | 38.6 | 40         |

### Material and Finish

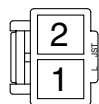
Post: Copper-alloy, tin-plated (reflow treatment)  
Wafer: PA 66, UL94V-0, natural (white)

### RoHS compliance

## Contact position location numbers

### <Inner-housing lock>

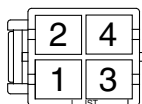
(2 circuits)



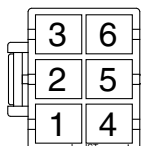
(3 circuits)



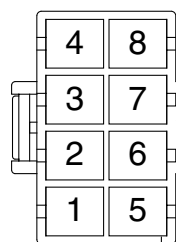
(4 circuits)



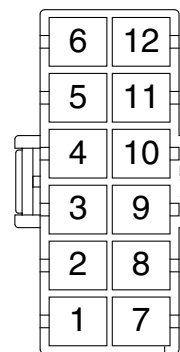
(6 circuits)



(8 circuits)

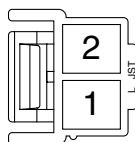


(12 circuits)

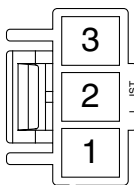


### <Outer-housing lock>

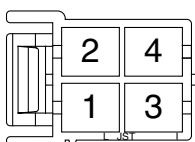
(2 circuits)



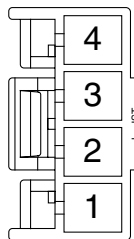
(3 circuits)



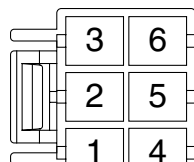
(4 circuits)



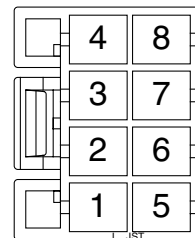
(Single-row  
4 circuits)



(6 circuits)



(8 circuits)



(12 circuits)

