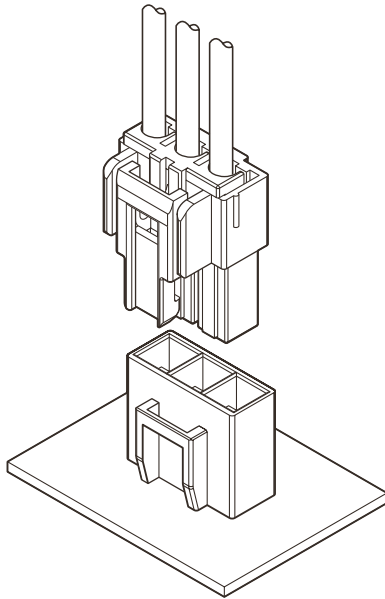


VL CONNECTOR (HIGH CURRENT TYPE)

6.2mm pitch/Disconnectable Crimp style connectors

(Combined use for both wire-to-board and wire-to-wire connections)



This VL connector is 6.2 mm pitch wire-to-wire and wire-to-board connector, designed for large current. The connector suitable for the large electric current has been realized by using highly-conducting material, so that the connection of large current circuit enables.

- **Housing lances**
- **Retainer**
- **Suited for large current**
- **Compatible for both wire-to-wire and wire-to-board connections**

Specifications

- Current rating: 23 A AC, DC (Refer to the following table.)
- Voltage rating: 600 V AC, DC
- Temperature range: -25°C to +90°C
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/ 7 mΩ max.
After environmental tests/ 10 mΩ max.
- Insulation resistance: 1,000 MΩ min.
- Withstanding voltage: 2,000 VAC/minute
- Applicable wire: AWG #20 to #12
- Applicable PC board thickness: 1.6 mm

Note: Do not branch in parallel current which exceeds the rated current (e.g. more than 22 A 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.

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.

Current unit: A

| No. of circuits | Wire size (AWG) | | | | |
|-----------------|-----------------|-----|-----|-----|-----|
| | #12 | #14 | #16 | #18 | #20 |
| 2 | 23 | 18 | 15 | 11 | 9 |
| 3 | 22 | 17 | 14 | 10 | 8 |
| 4 | 21 | 16 | 13 | 9 | 8 |

* The current rating mentioned above is applied only in the combination of contact and header for high current. When either is a normal product, please be careful because the current rating of the normal product is applied.

* In using the products, refer to "Handling Precaution for Terminal and Connector" described on our website (Technical documents of Product information page).

* Contact JST for details.

* RoHS2 compliance

Standards

UL Recognized E60389

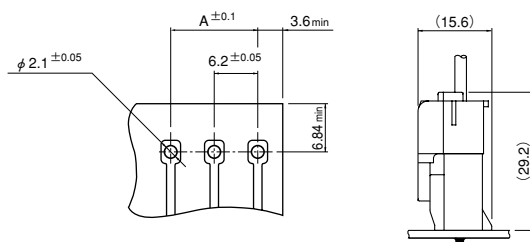
CS Certified LR20812

UL R9351103

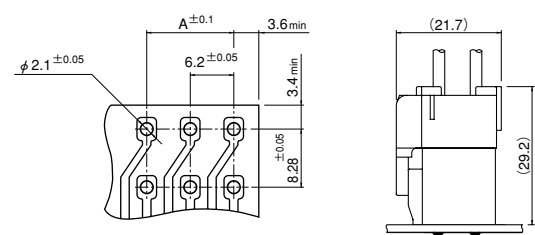
PC board layout and Assembly layout

Outer-housing lock

<2, 3, 4 (Single-row) circuits>



<4 circuits>



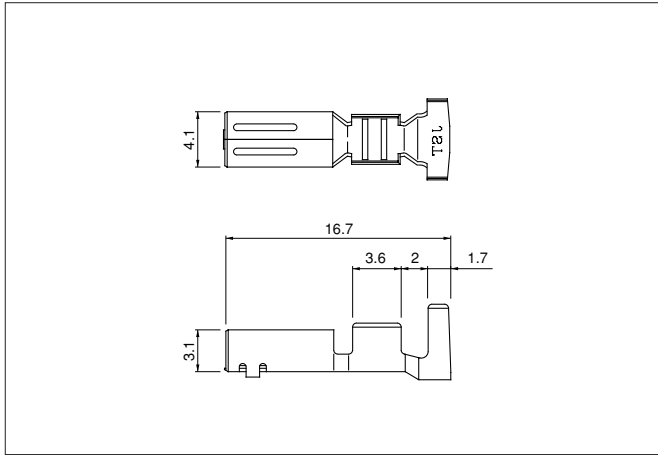
Note: 1. The above figure is the figure viewed from soldering side.

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

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

VL CONNECTOR (HIGH CURRENT TYPE)

Contact



| Model No. | Applicable wire | | Insulation O.D. (mm) | Q'ty/reel |
|----------------------|-----------------|-------|----------------------|-----------|
| | mm ² | AWG # | | |
| SVSF-61T-P2.0 | 0.5~2.0 | 20~14 | 1.9~3.4 | 2,000 |
| SVSF-81T-P2.0 | 3.5 | 12 | 4.1 | 2,000 |

Material and Finish

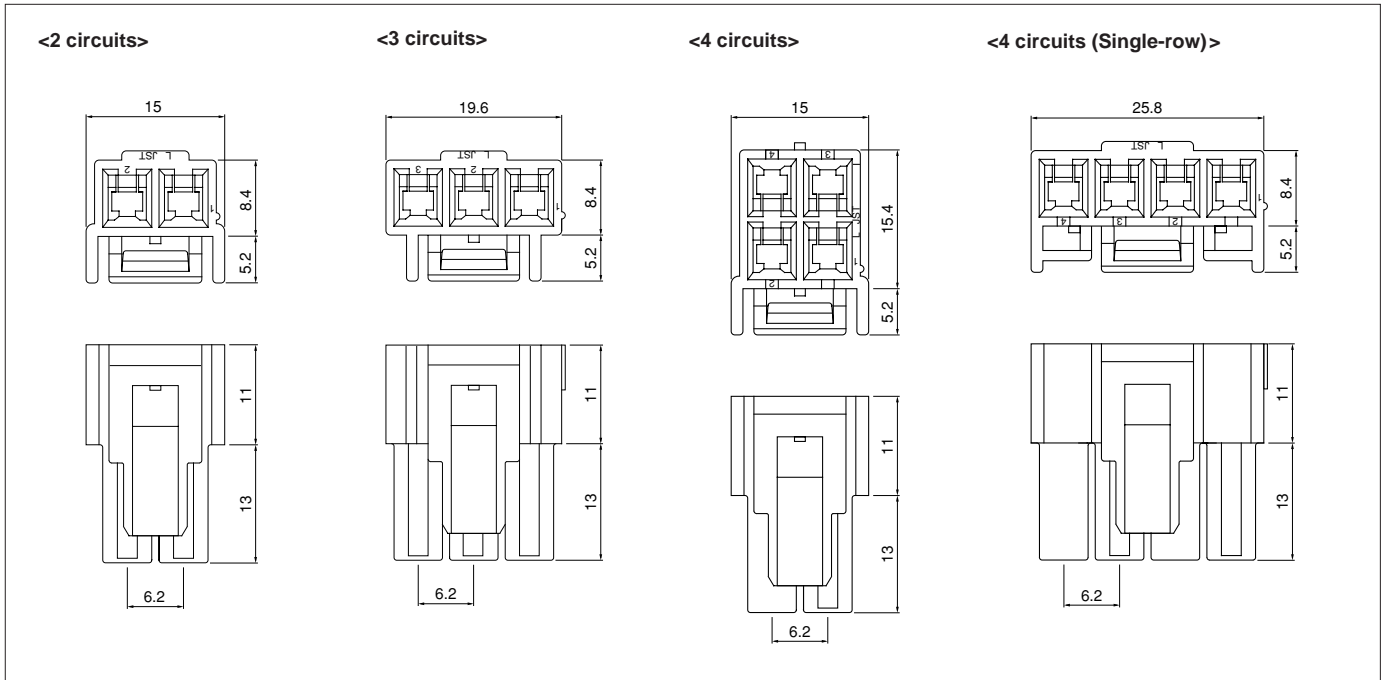
Phosphor bronze, tin-plated (reflow treatment)

RoHS2 compliance

| Contact | Crimping machine | Applicator | | |
|----------------------|------------------|------------------|----------------|----------------------------|
| | | Crimp applicator | Dies | Crimp applicator with dies |
| SVSF-61T-S2.0 | AP-K2N | MKS-L | MK/SVF/M-61-20 | APLMK SVF/M61-20 |
| | | — | — | — |
| SVSF-81T-S2.0 | | MKS-L | MK/SVF/M-81-20 | APLMK SVF/M81-20 |
| | | — | — | — |

Note: Contact JST for fully automatic crimping applicator.

Housing



Outer-housing lock

| No. of 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 |

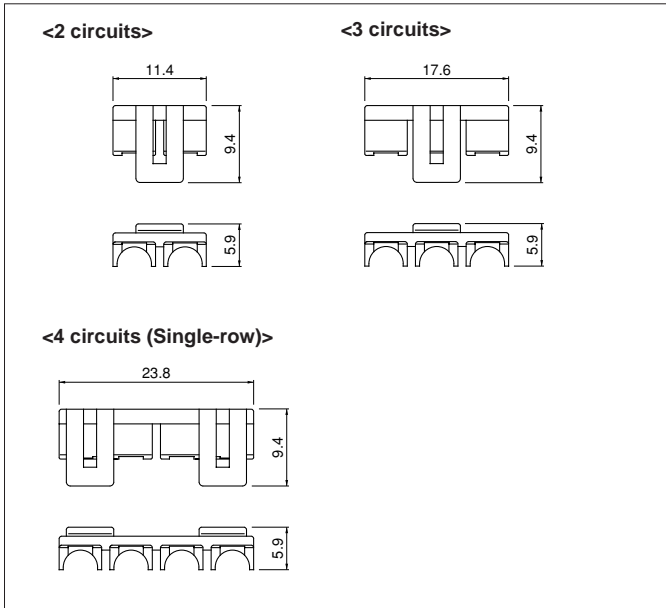
Material

PA 66, UL94V-0, natural (white)

RoHS2 compliance

VL CONNECTOR (HIGH CURRENT TYPE)

Retainer



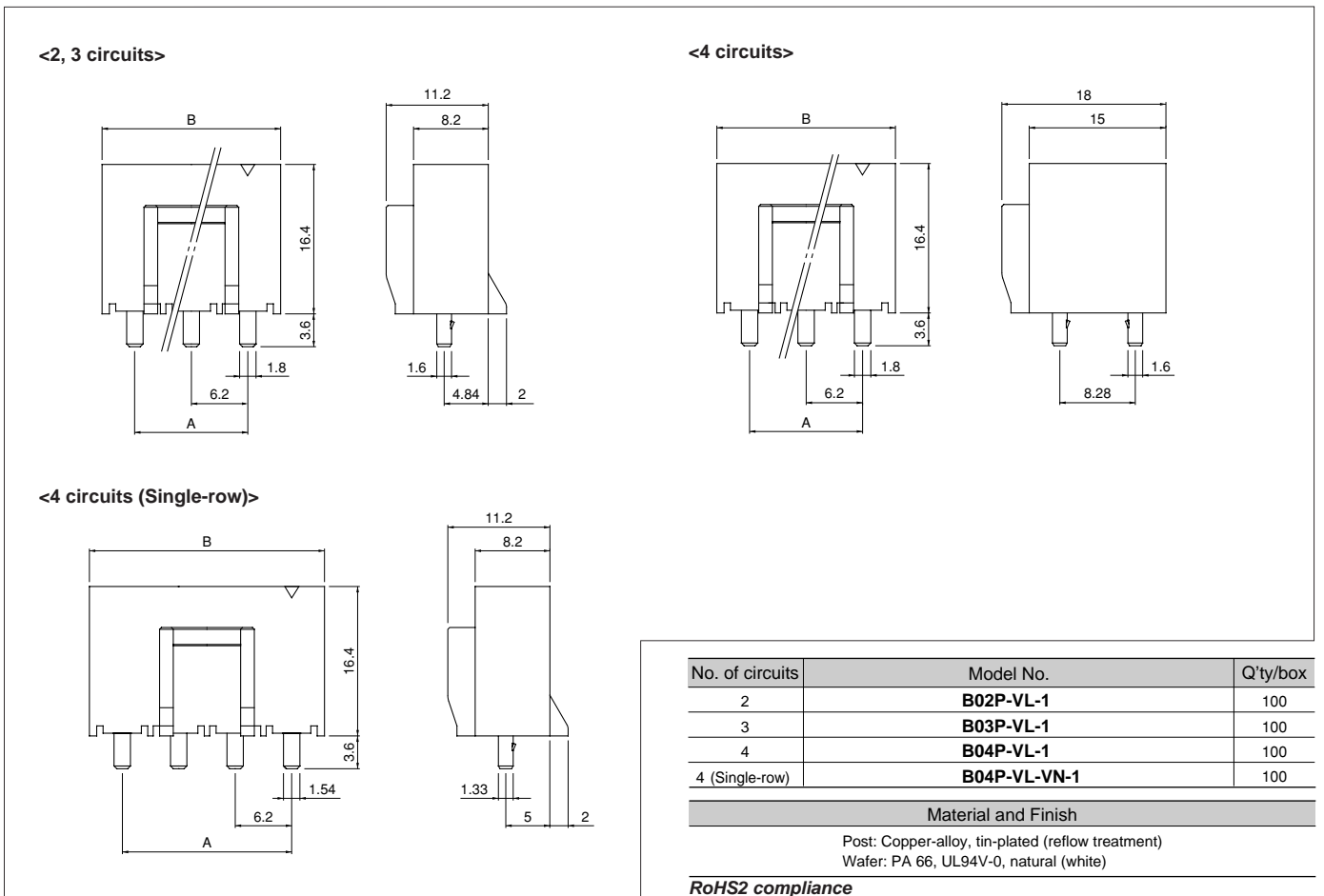
| No. of circuits | Model No. | Q'ty/bag |
|-----------------|----------------|----------|
| 2, 4 | VLS-02V | 1,000 |
| 3 | VLP-03V | 1,000 |
| 4 (Single-row) | VLP-08V | 1,000 |

Material

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

RoHS2 compliance

Header



| No. of circuits | Model No. | Q'ty/box |
|-----------------|---------------------|----------|
| 2 | B02P-VL-1 | 100 |
| 3 | B03P-VL-1 | 100 |
| 4 | B04P-VL-1 | 100 |
| 4 (Single-row) | B04P-VL-VN-1 | 100 |

Material and Finish

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

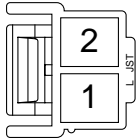
RoHS2 compliance

VL CONNECTOR (HIGH CURRENT TYPE)

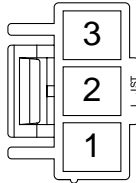
Contact position location numbers

Outer-housing lock

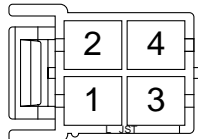
<2 circuits>



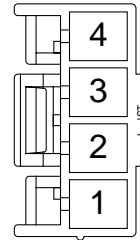
<3 circuits>



<4 circuits>



<4 circuits (Single-row)>



Model number identification

Contact

S VS F - 61 T - S 2.0

Form: S --- Strip form, B --- Loose piece

Series name

Shape: F --- Socket contact

Applicable wire: 61 --- AWG #20 to #14
81 --- AWG #12

Surface finish: T --- Tin-plated (Reflow treatment)

Material: S --- Copper alloy

Terminal size

Housing

VL P - 02 V - 1

Series name

Part name: Plug

No. of circuits: 2, 3, 4

Flammability: V --- UL94V-0

Shape: 1 --- Outer lock

Header

B 02P - VL - 1

Assembly style: B --- Top entry type

No. of circuits: 2, 3, 4

Series name

1: 1 --- High-current product

Retainer

VL S - 02 V

Series name

Part name: Retainer

No. of circuits: 2, 3, 8

Flammability: V --- UL94V-0

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