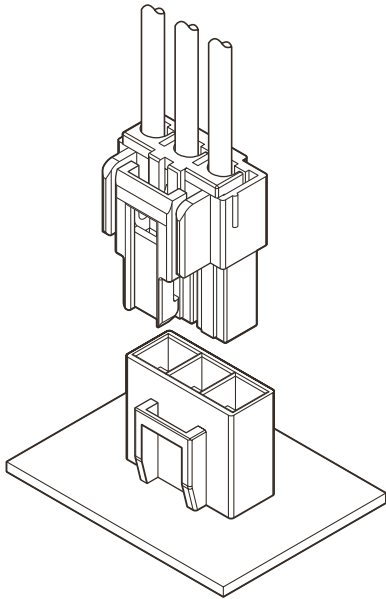


# VL CONNECTOR (HIGH CURRENT TYPE)

**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

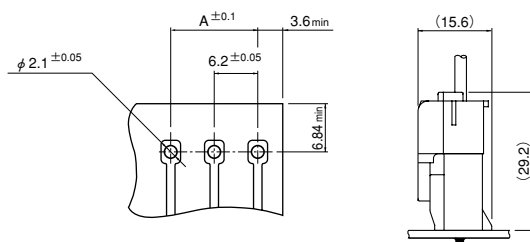
CS Certified LR20812

RoHS R9351103

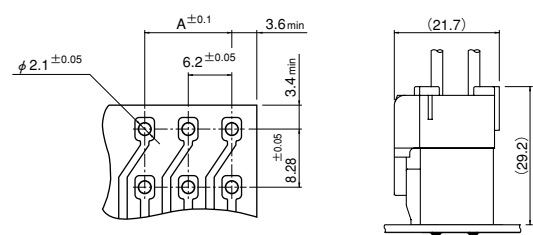
## PC board layout and Assembly layout

### Outer-housing lock

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



<4 circuits>



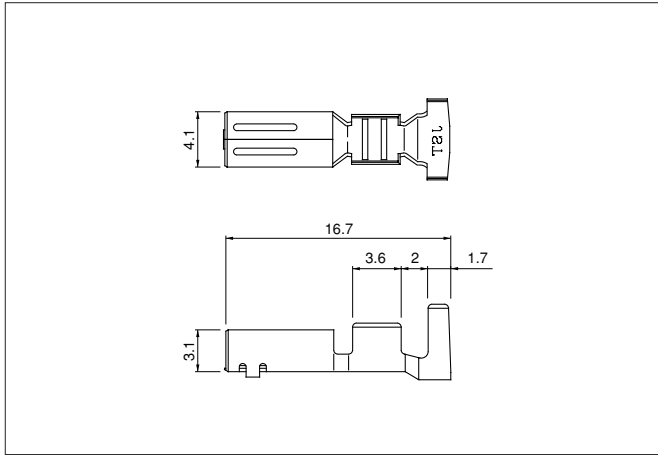
Note: 1. The above figure is the figure viewed from soldering side.

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 <sup>2</sup>	AWG #		
<b>SVSF-61T-P2.0</b>	0.5~2.0	20~14	1.9~3.4	2,000
<b>SVSF-81T-P2.0</b>	3.5	12	4.1	2,000

### Material and Finish

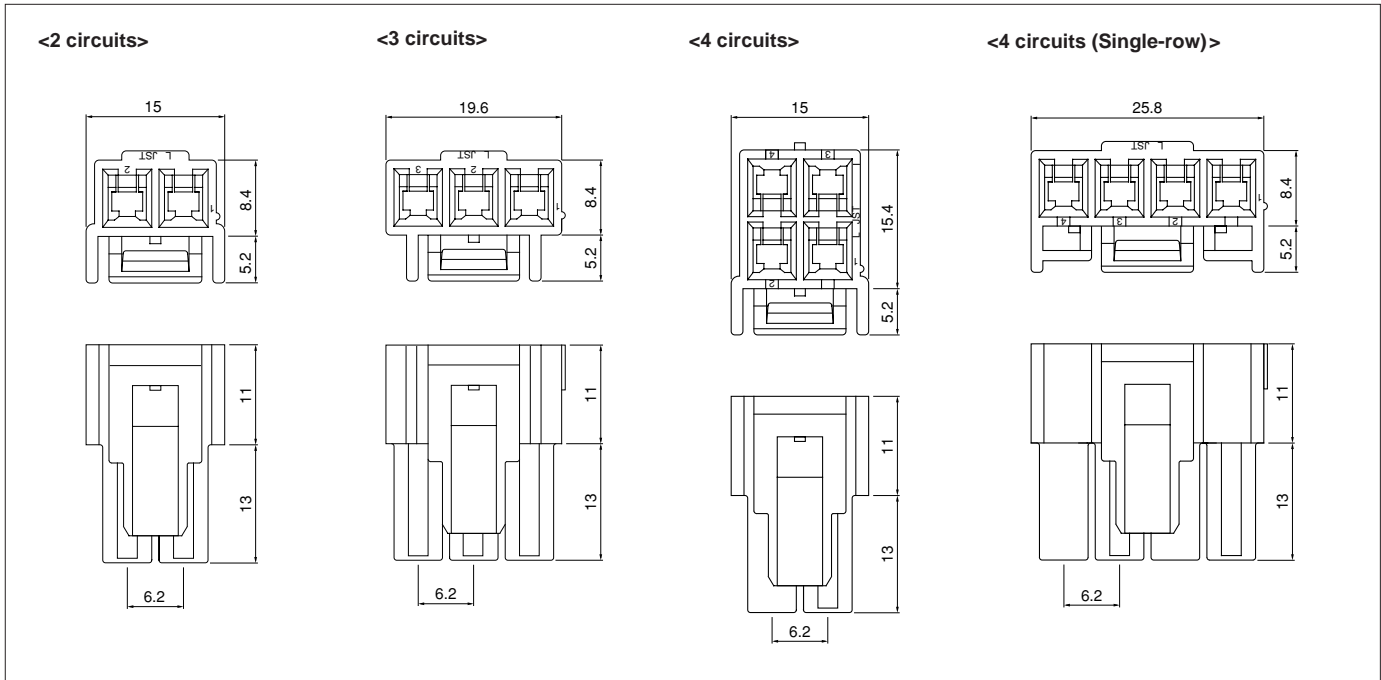
Phosphor bronze, tin-plated (reflow treatment)

### RoHS2 compliance

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
<b>SVSF-61T-S2.0</b>	AP-K2N	MKS-L	MK/SVF/M-61-20	APLMK SVF/M61-20
		—	—	—
<b>SVSF-81T-S2.0</b>		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	<b>VLP-02V-1</b>	500
3	<b>VLP-03V-1</b>	500
4	<b>VLP-04V-1</b>	500
4 (Single-row)	<b>VLP-04VN-1</b>	500

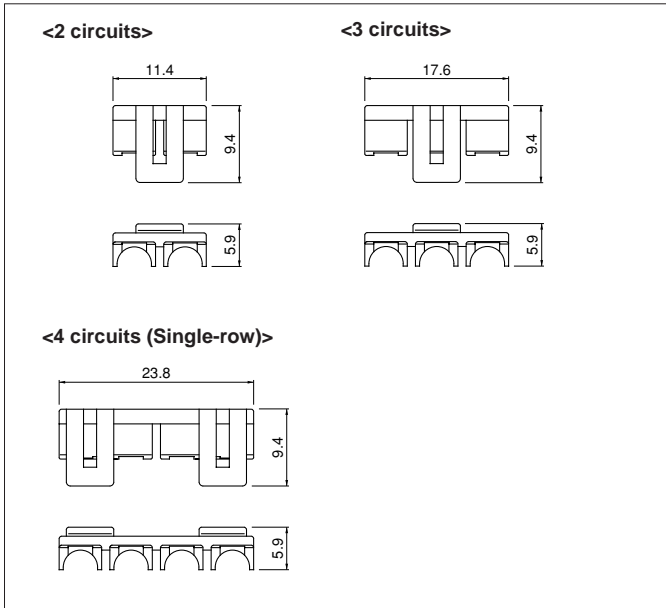
### Material

PA 66, UL94V-0, natural (white)

### RoHS2 compliance

# VL CONNECTOR (HIGH CURRENT TYPE)

## Retainer



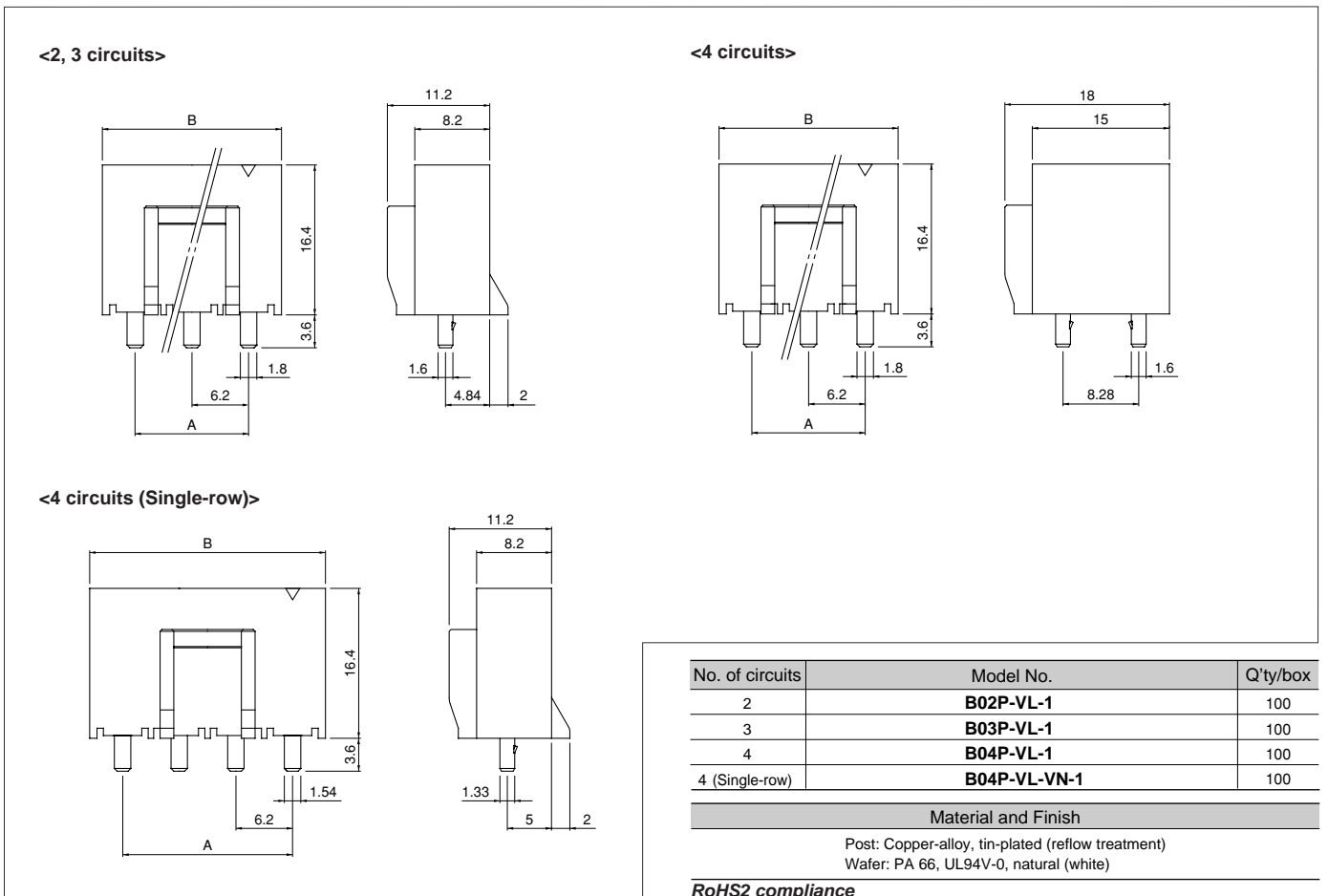
No. of circuits	Model No.	Q'ty/bag
2, 4	<b>VLS-02V</b>	1,000
3	<b>VLP-03V</b>	1,000
4 (Single-row)	<b>VLP-08V</b>	1,000

### Material

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

**RoHS2 compliance**

## Header



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

### Material and Finish

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

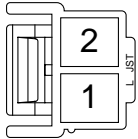
**RoHS2 compliance**

# VL CONNECTOR (HIGH CURRENT TYPE)

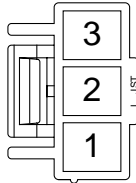
## Contact position location numbers

### Outer-housing lock

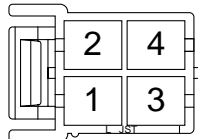
<2 circuits>



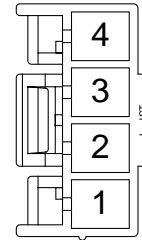
<3 circuits>



<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