

## Excellent Integrated System Limited

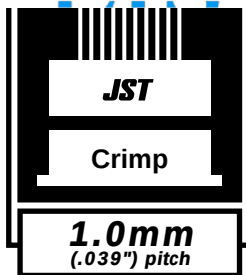
Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[JST Sales America Inc.](#)  
[BM40B-SRDS-A-G-TF](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

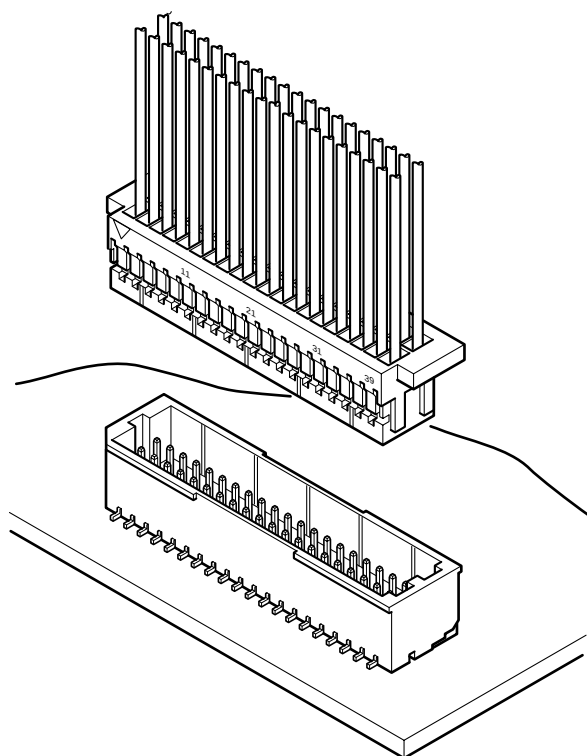


# SHD CONNECTOR

*Disconnectable Crimp style connectors*



**Ultra-compact, double-row design**



## Features

### • **Ultra-compact, low profile design**

The SHD connector is compact with a mounting height of 6.3mm (.248") for top entry type and 5.5mm (.217") for side entry type, and a width of 5.0mm (.197") for top entry type and 5.1mm (.201") for side entry type.

### • **Reliable contact**

The same contact can be used for the single-row SH connectors.

### • **Anti-misinsertion feature**

Ribs and grooves on the header and receptacle prevent misinsertion and distortion during mating and unmating.

### • **Receptacles with protrusions**

The receptacle has protrusions on both ends for an operator to disengage the receptacle from the header without holding the wires.

### • **Header designed for vacuum pick and place robotics**

Although this shrouded header has locking features for its mating receptacle, there are no holes in the header shroud that would adversely effect vacuum gripping equipment. Since there is enough flat surface for secure vacuum gripping, this miniature surface mount connector is versatile for designers and economic for manufacturing.

## Specifications

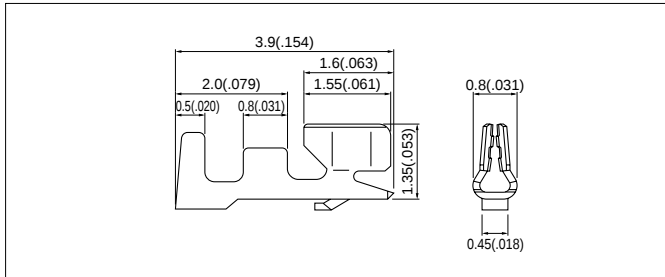
- Current rating: 1.0A AC, DC (AWG #28)
  - Voltage rating: 50V AC, DC
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/20m Ω max.  
After environmental testing/40m Ω max.
  - Insulation resistance: 100M Ω min.
  - Withstanding voltage: 500V AC/minute
  - Applicable wire: AWG #32 to #28  
Insulation O.D./0.4 to 0.8mm (.016" to .031")
- \* Contact JST for details.

## Standards

- 0 Recognized E60389
- 1 Certified LR20812

# SHD CONNECTOR

## Contact



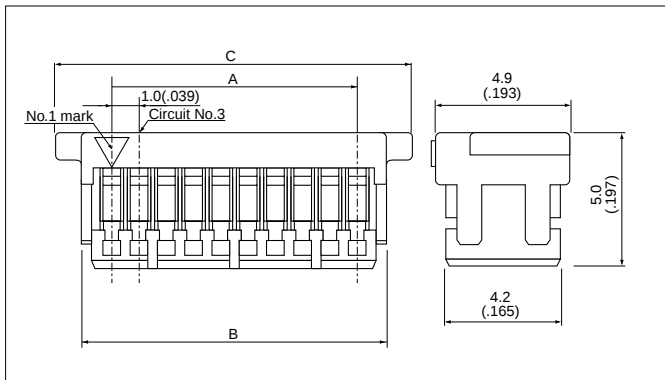
| Model No.      | Applicable wire |          |                          | Q'ty / reel |
|----------------|-----------------|----------|--------------------------|-------------|
|                | mm <sup>2</sup> | AWG#     | Insulation O.D. mm(in.)  |             |
| SSH-003GA-P0.2 | 0.032 to 0.08   | 32 to 28 | 0.4 to 0.8(.016 to .031) | 23,000      |

### Material and Finish

Phosphor bronze, nickel-undercoated, selective gold-plated

Note: Contact JST for tin-plated contacts.

## Housing



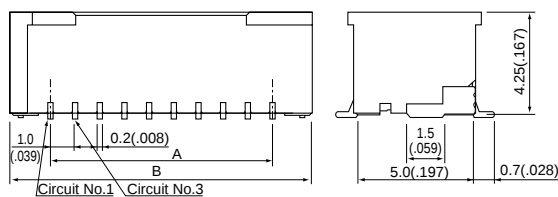
| Circuits | Model No.    | Dimensions mm(in.) |             |             | Q'ty / box |
|----------|--------------|--------------------|-------------|-------------|------------|
|          |              | A                  | B           | C           |            |
| 20       | SHDR-20V-S-B | 9.0(.354)          | 11.2(.441)  | 13.0(.512)  | 4,000      |
| 30       | SHDR-30V-S-B | 14.0(.551)         | 16.2(.638)  | 18.0(.709)  | 4,000      |
| 40       | SHDR-40V-S-B | 19.0(.748)         | 21.2(.835)  | 23.0(.906)  | 2,000      |
| 50       | SHDR-50V-S-B | 24.0(.945)         | 26.2(1.031) | 28.0(1.102) | 2,000      |

### Material

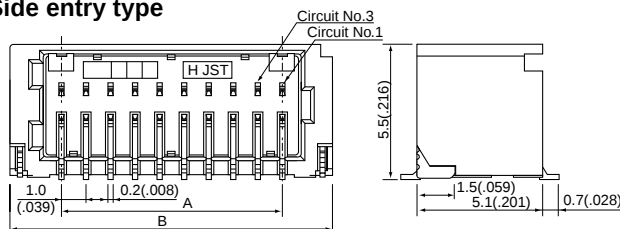
PBT, UL94V-0, natural (white)

## Shrouded header

### Top entry type



### Side entry type



| Circuits | Model No.       | Dimensions mm(in.) |             | Q'ty / reel |
|----------|-----------------|--------------------|-------------|-------------|
|          |                 | A                  | B           |             |
| 20       | BM20B-SRDS-G-TF | 9.0(.354)          | 12.3(.484)  | 1,500       |
| 30       | BM30B-SRDS-G-TF | 14.0(.551)         | 17.3(.681)  | 1,500       |
| 40       | BM40B-SRDS-G-TF | 19.0(.748)         | 22.3(.878)  | 1,500       |
| 50       | BM50B-SRDS-G-TF | 24.0(.945)         | 27.3(1.075) | 1,500       |

| Circuits | Model No.       | Dimensions mm(in.) |             | Q'ty / reel |
|----------|-----------------|--------------------|-------------|-------------|
|          |                 | A                  | B           |             |
| 20       | SM20B-SRDS-G-TF | 9.0(.354)          | 13.1(.516)  | 1,250       |
| 30       | SM30B-SRDS-G-TF | 14.0(.551)         | 18.1(.713)  | 1,250       |
| 40       | SM40B-SRDS-G-TF | 19.0(.748)         | 23.1(.909)  | 1,250       |
| 50       | SM50B-SRDS-G-TF | 24.0(.945)         | 28.1(1.106) | 1,250       |

### Material and Finish

Header contact: Phosphor bronze, nickel-undercoated, gold-plated

Wafer: Glass-filled polyamide, UL94V-0, natural (ivory)

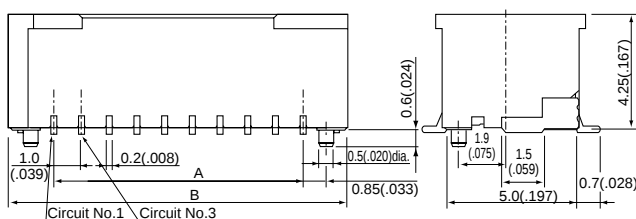
Solder tab: Brass, copper-undercoated, tin/lead-plated

Note: 1. The products listed above are supplied on embossed-tape.

2. Contact JST for the headers with tin-plated pins.

3. Contact JST for the top entry type headers with suction cap.

### Top entry type with a boss



| Circuits | Model No.         | Dimensions mm(in.) |             | Q'ty / reel |
|----------|-------------------|--------------------|-------------|-------------|
|          |                   | A                  | B           |             |
| 20       | BM20B-SRDS-A-G-TF | 9.0(.354)          | 12.3(.484)  | 1,250       |
| 30       | BM30B-SRDS-A-G-TF | 14.0(.551)         | 17.3(.681)  | 1,250       |
| 40       | BM40B-SRDS-A-G-TF | 19.0(.748)         | 22.3(.878)  | 1,250       |
| 50       | BM50B-SRDS-A-G-TF | 24.0(.945)         | 27.3(1.075) | 1,250       |

### Material and Finish

Header contact: Phosphor bronze, nickel-undercoated, gold-plated

Wafer: Glass-filled polyamide, UL94V-0, natural (ivory)

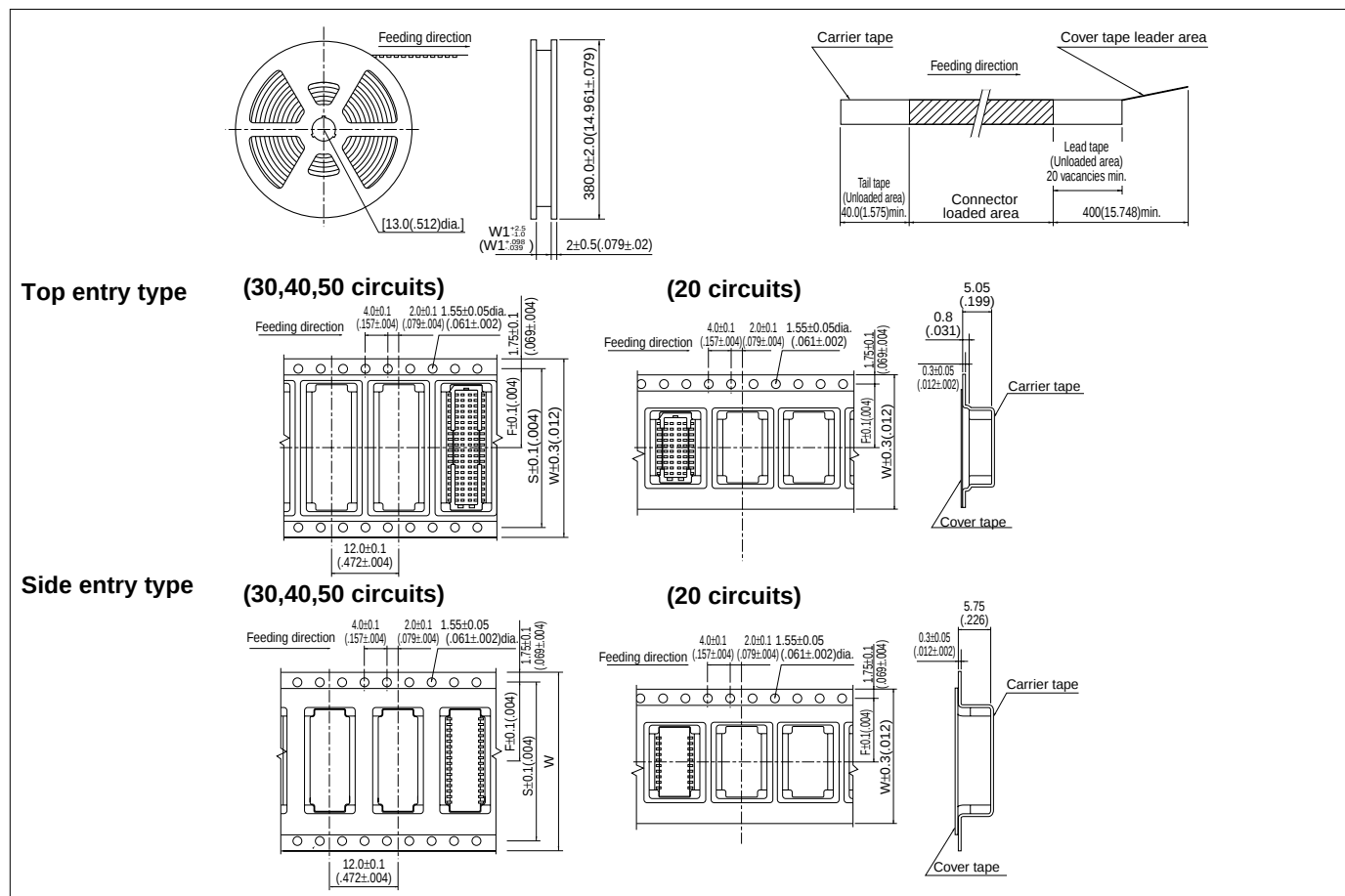
Solder tab: Brass, copper-undercoated, tin/lead-plated

Note: 1. The products listed above are supplied on embossed-tape.

2. Contact JST for the headers with tin-plated pins.

## SHD CONNECTOR

### Taping specifications

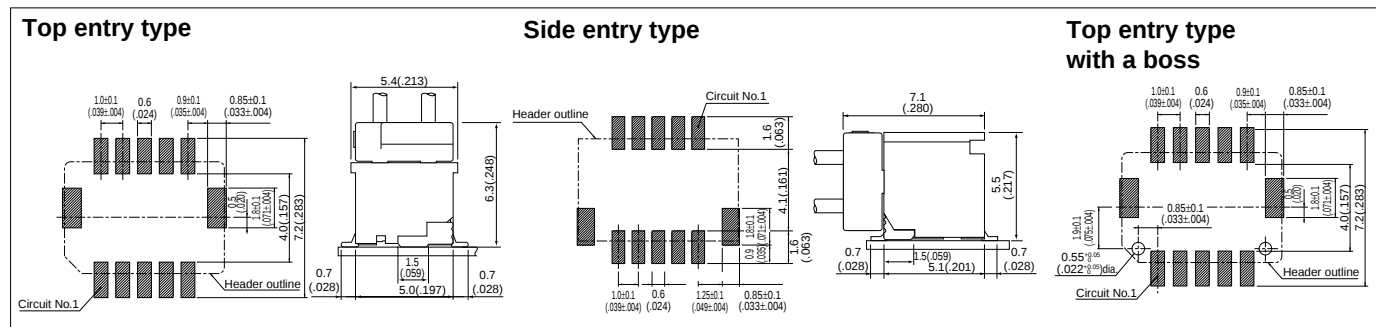


| Circuits | Dimensions mm(in.) |                 |                |                 |                |                 | Reel dimensions mm(in.) |                 | Q'ty / reel    |                 |
|----------|--------------------|-----------------|----------------|-----------------|----------------|-----------------|-------------------------|-----------------|----------------|-----------------|
|          | F                  |                 | S              |                 | W              |                 | W1                      |                 |                |                 |
|          | Top entry type     | Side entry type | Top entry type | Side entry type | Top entry type | Side entry type | Top entry type          | Side entry type | Top entry type | Side entry type |
| 20       | 11.5(.453)         | 11.5(.453)      | —              | —               | 24.0( .945)    | 24.0( .945)     | 25.5(1.004)             | 25.5(1.004)     | 1,500          | 1,250           |
| 30       | 14.2(.559)         | 14.2(.559)      | 28.4(1.118)    | 28.4(1.118)     | 32.0(1.260)    | 32.0(1.260)     | 33.5(1.319)             | 33.5(1.319)     | 1,500          | 1,250           |
| 40       | 20.2(.795)         | 20.2(.795)      | 40.4(1.591)    | 40.4(1.591)     | 44.0(1.732)    | 44.0(1.732)     | 45.5(1.791)             | 45.5(1.791)     | 1,500          | 1,250           |
| 50       | 20.2(.795)         | 20.2(.795)      | 40.4(1.591)    | 40.4(1.591)     | 44.0(1.732)    | 44.0(1.732)     | 45.5(1.791)             | 45.5(1.791)     | 1,500          | 1,250           |

Note: 1. Specifications conform to JIS C 0806. The tape width, connector loading recess square dimensions, etc. are determined by the number of circuits and external shape of the connector to be loaded.  
2. Specifications are subject to change without prior notice.

## SHD CONNECTOR

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



Note: 1. Tolerances are non-Cumulative:  $\pm 0.05\text{mm}$  ( $\pm 0.002$ ") for all centers.  
2. Hole dimensions differ according to the kind of PC board and piercing method.  
The dimensions above should serve as a guide line. Contact JST for details.

### Applicator for the semi-automatic press AP-K2N

| Contact               | Crimp applicator MKS-L-10-3 |                      | Compact crimp applicator MKS-LS |                      | Strip-crimp applicator MKS-SC |
|-----------------------|-----------------------------|----------------------|---------------------------------|----------------------|-------------------------------|
|                       | with safety cover           | without safety cover | with safety cover               | without safety cover | with safety cover             |
| <b>SSH-003GA-P0.2</b> | APLMK SSH/L003-02           | APLNC SSH/L003-02    | —                               | —                    | APLSC SSH003-02               |