The 2.0 mm pitch PA family consists of the following connectors:

- **PA connector** (Wire-to-board crimp style)
- **PAF connector** (Wire-to-board insulation displacement connection (IDC) style)
- **PAL connector** (Wire-to-wire crimp style)

These features enabled a harness with complicated shape for the first time as a 2.0 mm pitch connector with secure locking mechanism.

- Secure locking device
- Interchangeable between crimp and IDC socket
- Secondary retainers
- Harness variation

**PA connector (Standard type, Retainer mountable type)**

- Highly reliable contact
- Insertion guide mechanism
- Flanged press pin

**PAF connector**

- The industry’s first secure lock IDC connectors
- Metallic strain relief
- Retainer with four locking points

**PAL connector**

- The industry’s first wire to wire 2.0 mm pitch retainer mountable type connector.
- Either with or without panel lock can be selected according to application.

---

**Standards**

- Recognized E60389

**Specifications**

### PA Connector (Standard type)

- **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:** Initial/ 1,000 MΩ min.
- **Withstanding voltage:** 800 VAC/minute
- **Applicable wire:** Conductor size/ AWG #28 to #22
  
  Insulation O.D./ 0.76 to 1.5 mm
- **Applicable PC board thickness:** 1.6 mm

### PA Connector (Retainer mountable type)

- **Current rating:** 3 A AC/DC (AWG #22)
- **Voltage rating:** 100 V AC/DC
- **Temperature range:** -25°C to +85°C (including temperature rise in applying electrical current)
- **Contact resistance:** Initial value/ 15 mΩ max.
  
  After environmental tests/ 25 mΩ max.
- **Insulation resistance:** Initial/ 1,000 MΩ min.
- **Withstanding voltage:** 800 VAC/minute
- **Applicable wire:** AWG #26 to #22

### PAF Connector

- **Current rating:** 1.0 A AC/DC (AWG #26)
- **Voltage rating:** 100 V AC/DC
- **Temperature range:** -25°C to +85°C (including temperature rise in applying electrical current)
- **Contact resistance:** Initial value/ 15 mΩ max.
  
  After environmental tests/ 25 mΩ max.
- **Insulation resistance:** Initial/ 1,000 MΩ min.
- **Withstanding voltage:** 800 VAC/minute
- **Applicable wire:** UL1061 (Contact JST for details regarding other UL wires.)

  *AWG #26*
  
  Conductor/ 7 strands, tin-coated annealed copper
  
  Insulation O.D./ 0.9 to 1.0 mm

### PAL Connector

- **Current rating:** 3 A AC/DC (AWG #22)
- **Voltage rating:** 100 V AC/DC
- **Temperature range:** -25°C to +85°C (including temperature rise in applying electrical current)
- **Contact resistance:** Initial value/ 15 mΩ max.
  
  After environmental tests/ 25 mΩ max.
- **Insulation resistance:** Initial/ 1,000 MΩ min.
- **Withstanding voltage:** 800 VAC/minute
- **Applicable wire:** AWG #28 to #22
- **Applicable panel thickness:** 0.5 to 2.0 mm

* In using the products, refer to “Handling Precautions for Terminals and Connectors” described on our website (Technical documents of Product information page).
* RoHS2 compliance
* Dimensional unit: mm
* Contact JST for details.
List of combinations

Crimp style

Standard type

Contact
SPHD-001T-P0.5
SPHD-002T-P0.5

Housing
PAP-( V-S

Retainer
PMS-( V-S

Retainer mountable type

Contact
SPA-001T-P0.5

Housing
PARP-( V

Retainer
PMS-( V-S

IDC style

Socket
(PAF-6S

Retainer
PAFS-( V-S

Top entry type

Header
B( J-B-PASK
B( J-B-PASK-1
B( J-B-PASK-N
B( J-B-PASK-1N
S( J-B-PASK-2

Side entry type

Bottom type

Header
BE( J-B-PASK
BE( J-B-PASK-C

High box type

Header
BH( J-B-PASK
BH( J-B-PASK-1

SMT type

Top entry type

Header
BM( J-B-PASS
BM( J-B-PASS-1
SM( J-B-PASS
SM( J-B-PASS-1

Side entry type

Wire to wire type

Contact
SPAL-001T-P0.5
SPAL-002T-P0.5

Receptacle housing
PALR-( V(F

Retainer
PMS-( V-S

Crimp style

Retainer mountable type

Contact
SPA-001T-P0.5

Housing
PARP-( V

Contact
SPA-001T-P0.5

Retainer
PMS-( V-S

IDC style

Socket
(PAF-6S

Retainer
PAFS-( V-S

Top entry type

Header
B( J-B-PASK
B( J-B-PASK-1
B( J-B-PASK-N
B( J-B-PASK-1N
S( J-B-PASK-2

Side entry type

Bottom type

Header
BE( J-B-PASK
BE( J-B-PASK-C

High box type

Header
BH( J-B-PASK
BH( J-B-PASK-1

SMT type

Top entry type

Header
BM( J-B-PASS
BM( J-B-PASS-1
SM( J-B-PASS
SM( J-B-PASS-1

Side entry type

Wire to wire type

Contact
SPAL-001T-P0.5
SPAL-002T-P0.5

Receptacle housing
PALR-( V(F

Retainer
PMS-( V-S

Crimp style

Retainer mountable type

Contact
SPA-001T-P0.5

Housing
PARP-( V

Contact
SPA-001T-P0.5

Retainer
PMS-( V-S

IDC style

Socket
(PAF-6S

Retainer
PAFS-( V-S

Top entry type

Header
B( J-B-PASK
B( J-B-PASK-1
B( J-B-PASK-N
B( J-B-PASK-1N
S( J-B-PASK-2

Side entry type

Bottom type

Header
BE( J-B-PASK
BE( J-B-PASK-C

High box type

Header
BH( J-B-PASK
BH( J-B-PASK-1

SMT type

Top entry type

Header
BM( J-B-PASS
BM( J-B-PASS-1
SM( J-B-PASS
SM( J-B-PASS-1

Side entry type

Wire to wire type

Contact
SPAL-001T-P0.5
SPAL-002T-P0.5

Receptacle housing
PALR-( V(F

Retainer
PMS-( V-S

Crimp style

Retainer mountable type

Contact
SPA-001T-P0.5

Housing
PARP-( V

Contact
SPA-001T-P0.5

Retainer
PMS-( V-S

IDC style

Socket
(PAF-6S

Retainer
PAFS-( V-S

Top entry type

Header
B( J-B-PASK
B( J-B-PASK-1
B( J-B-PASK-N
B( J-B-PASK-1N
S( J-B-PASK-2

Side entry type

Bottom type

Header
BE( J-B-PASK
BE( J-B-PASK-C

High box type

Header
BH( J-B-PASK
BH( J-B-PASK-1

SMT type

Top entry type

Header
BM( J-B-PASS
BM( J-B-PASS-1
SM( J-B-PASS
SM( J-B-PASS-1

Side entry type

Wire to wire type

Contact
SPAL-001T-P0.5
SPAL-002T-P0.5

Receptacle housing
PALR-( V(F

Retainer
PMS-( V-S
### PC board layout and Assembly layout

#### Through-hole type

**Top entry type**

![Diagram of Top entry type](image)

**Side entry type**

![Diagram of Side entry type](image)

**Bottom type**

![Diagram of Bottom type](image)

**Bottom type with extended length**

![Diagram of Bottom type with extended length](image)

---

**Note:**

1. The above figure is the figure viewed from the connector mounting 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.
   
   Please contact JST for details as the dimensions shown in the above figure are reference values.
PC board layout and Assembly layout

**High box type**

Note: 1. The above figure is the figure viewed from the connector mounting 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.
   Please contact JST for details as the dimensions shown in the above figure are reference values.

**<SMT type>**

**Top entry type**

**Side entry type**

Note: 1. The above figure is the figure viewed from the connector mounting side.
2. Tolerances for the centers of pattern on PCB is ± 0.05, and shall be not cumulative more than ± 0.1.
3. Please contact JST for details as the dimensions shown in the above figure are reference values.

**<Wire-to-wire>**

Note: 1. The above figure is the figure viewed from the connector mounting 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.
   Please contact JST for details as the dimensions shown in the above figure are reference values.
Contact

- Model No.: SPHD-001T-P0.5
  - Applicable wire: 0.13~0.33 mm²
  - Insulation O.D.: 0.76~1.5 mm
  - Q'ty./reel: 8,000

- Model No.: SPHD-002T-P0.5
  - Applicable wire: 0.08~0.21 mm²
  - Insulation O.D.: 0.76~1.5 mm
  - Q'ty./reel: 8,000

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

RoHS2 compliance
- Contact
  - Crimping machine: AP-K2N
  - Crimp applicator: MKS-L-10
  - Dies: MK/SPHD-002-05, APLMK
  - Crimp applicator with dies: SPHD-002-05, SPHD-001-05

Note: Contact JST for fully automatic crimping applicator.

Housing

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q'ty./bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>PAP-02V-S</td>
<td>A: 4.0, B: 8.0</td>
<td>1,000</td>
</tr>
<tr>
<td>3</td>
<td>PAP-03V-S</td>
<td>A: 4.0, B: 8.0</td>
<td>1,000</td>
</tr>
<tr>
<td>4</td>
<td>PAP-04V-S</td>
<td>A: 8.0, B: 12.0</td>
<td>1,000</td>
</tr>
<tr>
<td>5</td>
<td>PAP-05V-S</td>
<td>A: 8.0, B: 12.0</td>
<td>1,000</td>
</tr>
<tr>
<td>6</td>
<td>PAP-06V-S</td>
<td>A: 10.0, B: 14.0</td>
<td>1,000</td>
</tr>
<tr>
<td>7</td>
<td>PAP-07V-S</td>
<td>A: 12.0, B: 16.0</td>
<td>1,000</td>
</tr>
<tr>
<td>8</td>
<td>PAP-08V-S</td>
<td>A: 14.0, B: 18.0</td>
<td>1,000</td>
</tr>
<tr>
<td>9</td>
<td>PAP-09V-S</td>
<td>A: 16.0, B: 20.0</td>
<td>1,000</td>
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<tr>
<td>10</td>
<td>PAP-10V-S</td>
<td>A: 18.0, B: 22.0</td>
<td>1,000</td>
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<tr>
<td>11</td>
<td>PAP-11V-S</td>
<td>A: 20.0, B: 24.0</td>
<td>1,000</td>
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<tr>
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<td>PAP-12V-S</td>
<td>A: 22.0, B: 26.0</td>
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<td>1,000</td>
</tr>
<tr>
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<td>PAP-14V-S</td>
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<td>PAP-15V-S</td>
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<tr>
<td>16</td>
<td>PAP-16V-S</td>
<td>A: 30.0, B: 34.0</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Material and Finish
- PA 66, UL94V-0, natural (white)

RoHS2 compliance
Through-hole type header

**Top entry type**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty./box</th>
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</thead>
<tbody>
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<td>8.0</td>
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<tr>
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<td>B04B-PASK</td>
<td>6.0</td>
<td>10.0</td>
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<td>B05B-PASK</td>
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<td>B06B-PASK</td>
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<td>14.0</td>
</tr>
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<td>B07B-PASK</td>
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<td>16.0</td>
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<td>B08B-PASK</td>
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<td>18.0</td>
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</tr>
<tr>
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<td>B11B-PASK</td>
<td>20.0</td>
<td>24.0</td>
</tr>
<tr>
<td>12</td>
<td>B12B-PASK</td>
<td>22.0</td>
<td>26.0</td>
</tr>
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<td>13</td>
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<tr>
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<td>B15B-PASK</td>
<td>28.0</td>
<td>32.0</td>
</tr>
<tr>
<td>16</td>
<td>B16B-PASK</td>
<td>30.0</td>
<td>34.0</td>
</tr>
</tbody>
</table>

**Side entry type**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty./box</th>
</tr>
</thead>
<tbody>
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<td>5</td>
<td>S05B-PASK-2</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>6</td>
<td>S06B-PASK-2</td>
<td>10.0</td>
<td>14.0</td>
</tr>
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<td>7</td>
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<td>S16B-PASK-2</td>
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</tr>
</tbody>
</table>

**Material and Finish**

- **Post**: Copper alloy, copper-undercoated, tin-plated (reflow treatment)
- **Wafer**: Glass-filled PBT, UL94V-0, natural (white)
- **RoHS2 compliance**: This product displays (LF)(SN) on a label.
Through-hole type header

**N type**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty/box</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B02B-PASK-N</td>
<td>2.0, 6.0</td>
<td>1,000</td>
</tr>
<tr>
<td>3</td>
<td>B03B-PASK-N</td>
<td>4.0, 8.0</td>
<td>500</td>
</tr>
<tr>
<td>4</td>
<td>B04B-PASK-N</td>
<td>6.0, 10.0</td>
<td>1,000</td>
</tr>
<tr>
<td>5</td>
<td>B05B-PASK-N</td>
<td>8.0, 12.0</td>
<td>250</td>
</tr>
<tr>
<td>6</td>
<td>B06B-PASK-N</td>
<td>10.0, 14.0</td>
<td>500</td>
</tr>
<tr>
<td>7</td>
<td>B07B-PASK-N</td>
<td>12.0, 16.0</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
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<td>11</td>
<td>B11B-PASK-N</td>
<td>20.0, 24.0</td>
<td>250</td>
</tr>
<tr>
<td>12</td>
<td>B12B-PASK-N</td>
<td>22.0, 26.0</td>
<td>250</td>
</tr>
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<td>13</td>
<td>B13B-PASK-N</td>
<td>24.0, 28.0</td>
<td>250</td>
</tr>
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<td>B14B-PASK-N</td>
<td>26.0, 30.0</td>
<td>250</td>
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<td>15</td>
<td>B15B-PASK-N</td>
<td>28.0, 32.0</td>
<td>250</td>
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<tr>
<td>16</td>
<td>B16B-PASK-N</td>
<td>30.0, 34.0</td>
<td>250</td>
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</tbody>
</table>

**Bottom type**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty/bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>BE05B-PASK</td>
<td>8.0, 12.0, 12.4</td>
<td>300</td>
</tr>
<tr>
<td>8</td>
<td>BE08B-PASK</td>
<td>14.0, 18.0, 18.4</td>
<td>200</td>
</tr>
<tr>
<td>11</td>
<td>BE11B-PASK</td>
<td>20.0, 24.0, 24.4</td>
<td>150</td>
</tr>
<tr>
<td>12</td>
<td>BE12B-PASK</td>
<td>22.0, 26.0, 26.4</td>
<td>150</td>
</tr>
</tbody>
</table>

**Bottom type with extended length**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty/box</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BE04B-PASK-C</td>
<td>6.0, 10.0, 10.4</td>
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</tr>
<tr>
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<td>BE05B-PASK-C</td>
<td>8.0, 12.0, 12.4</td>
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<td>6</td>
<td>BE06B-PASK-C</td>
<td>10.0, 14.0, 14.4</td>
<td>750</td>
</tr>
</tbody>
</table>

**Material and Finish**

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

RoHS2 compliance: This product displays (LF)(SN) on a label.

**Note:** Dimensions C; Refer to the PCB layout bottom type (page 3).
### High box type

#### <2 circuits>

- Model No.: BH02B-PASK
- Dimensions (mm): 2.0 A, 6.0 B
- Quantity/box: 900

#### <3 circuits>

- Model No.: BH03B-PASK
- Dimensions (mm): 4.0 A, 8.0 B
- Quantity/box: 675

#### <4 circuits>

- Model No.: BH04B-PASK
- Dimensions (mm): 6.0 A, 10.0 B
- Quantity/box: 525

#### <5 to 9 circuits>

- Model No.: BH05B-PASK
- Dimensions (mm): 8.0 A, 12.0 B
- Quantity/box: 450

#### <7 to 9 circuits>

- Model No.: BH06B-PASK
- Dimensions (mm): 10.0 A, 14.0 B
- Quantity/box: 375

#### <10 to 12, 15 circuits>

- Model No.: BH07B-PASK
- Dimensions (mm): 12.0 A, 16.0 B
- Quantity/box: 325

- Model No.: BH08B-PASK
- Dimensions (mm): 14.0 A, 18.0 B
- Quantity/box: 300

- Model No.: BH09B-PASK
- Dimensions (mm): 16.0 A, 20.0 B
- Quantity/box: 250

- Model No.: BH10B-PASK
- Dimensions (mm): 18.0 A, 22.0 B
- Quantity/box: 225

- Model No.: BH11B-PASK
- Dimensions (mm): 20.0 A, 24.0 B
- Quantity/box: 225

- Model No.: BH12B-PASK
- Dimensions (mm): 22.0 A, 26.0 B
- Quantity/box: 200

- Model No.: BH15B-PASK
- Dimensions (mm): 28.0 A, 32.0 B
- Quantity/box: 150

---

### Material and Finish

- Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)
- Wafer: Glass-filled PBT, UL94V-0, natural (white)

---

RoHS2 compliance: This product displays (LF)(SN) on a label.
### PA FAMILY/PA • PAF • PAL CONNECTORS

#### SMT type header

**Top entry type**

- **<2 and 3 circuits>**
- **<4 to 9 circuits>**
- **<10 to 13, 15 circuits>**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Without a boss</th>
<th>With a boss</th>
<th>Dimensions (mm)</th>
<th>Q’ty/reel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>BM02B-PASS(*)</td>
<td>BM02B-PASS-1(*)</td>
<td>2.0 8.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BM03B-PASS(*)</td>
<td>BM03B-PASS-1(*)</td>
<td>4.0 10.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BM04B-PASS(*)</td>
<td>BM04B-PASS-1(*)</td>
<td>6.0 12.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>BM05B-PASS(*)</td>
<td>BM05B-PASS-1(*)</td>
<td>8.0 14.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>BM06B-PASS(*)</td>
<td>BM06B-PASS-1(*)</td>
<td>10.0 16.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>BM07B-PASS(*)</td>
<td>BM07B-PASS-1(*)</td>
<td>12.0 18.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>BM08B-PASS(*)</td>
<td>BM08B-PASS-1(*)</td>
<td>14.0 20.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BM09B-PASS(*)</td>
<td>BM09B-PASS-1(*)</td>
<td>16.0 22.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>BM10B-PASS(*)</td>
<td>BM10B-PASS-1(*)</td>
<td>18.0 24.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>BM11B-PASS(*)</td>
<td>BM11B-PASS-1(*)</td>
<td>20.0 26.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>BM12B-PASS(*)</td>
<td>BM12B-PASS-1(*)</td>
<td>22.0 28.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>BM13B-PASS(*)</td>
<td>BM13B-PASS-1(*)</td>
<td>24.0 30.0</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>BM15B-PASS(*)</td>
<td>BM15B-PASS-1(*)</td>
<td>28.0 34.0</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

**Side entry type**

- **<2 and 3 circuits>**
- **<4 to 9 circuits>**
- **<10 to 13, 15 circuits>**

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Without a boss</th>
<th>With a boss</th>
<th>Dimensions (mm)</th>
<th>Q’ty/reel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SM02B-PASS(*)</td>
<td>SM02B-PASS-1(*)</td>
<td>2.0 8.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SM03B-PASS(*)</td>
<td>SM03B-PASS-1(*)</td>
<td>4.0 10.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SM04B-PASS(*)</td>
<td>SM04B-PASS-1(*)</td>
<td>6.0 12.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SM05B-PASS(*)</td>
<td>SM05B-PASS-1(*)</td>
<td>8.0 14.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SM06B-PASS(*)</td>
<td>SM06B-PASS-1(*)</td>
<td>10.0 16.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>SM07B-PASS(*)</td>
<td>SM07B-PASS-1(*)</td>
<td>12.0 18.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SM08B-PASS(*)</td>
<td>SM08B-PASS-1(*)</td>
<td>14.0 20.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>SM09B-PASS(*)</td>
<td>SM09B-PASS-1(*)</td>
<td>16.0 22.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>SM10B-PASS(*)</td>
<td>SM10B-PASS-1(*)</td>
<td>18.0 24.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SM11B-PASS(*)</td>
<td>SM11B-PASS-1(*)</td>
<td>20.0 26.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>SM12B-PPASS(*)</td>
<td>SM12B-PASS-1(*)</td>
<td>22.0 28.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>SM13B-PASS(*)</td>
<td>SM13B-PASS-1(*)</td>
<td>24.0 30.0</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>SM15B-PASS(*)</td>
<td>SM15B-PASS-1(*)</td>
<td>28.0 34.0</td>
<td>1,000</td>
<td></td>
</tr>
</tbody>
</table>

**Material and Finish**
- Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)
- Wafer: PA, UL94V-0, natural (ivory)
- Solder tab: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

**RoHS2 compliance**
- This product displays (LF)(SN) on a label.
- Note: (*) = TFB…taping product
  TFB…taping product with suction tape.

---

**Top entry type**

**<2 and 3 circuits>**

![Diagram](image1)

**<4 to 9 circuits>**

![Diagram](image2)

**<10 to 13, 15 circuits>**

![Diagram](image3)

**Side entry type**

**<2 and 3 circuits>**

![Diagram](image4)

**<4 to 9 circuits>**

![Diagram](image5)

**<10 to 13, 15 circuits>**

![Diagram](image6)

---

**RoHS2 compliance**
- This product displays (LF)(SN) on a label.
- Note: (*) = TFB…taping product
  TFB…taping product with suction tape.
### Contact

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Applicable wire mm²</th>
<th>Insulation O.D. (mm)</th>
<th>Q'ty/reel</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA-001T-P0.5</td>
<td>0.13~0.33</td>
<td>0.9~1.5</td>
<td>10,000</td>
</tr>
</tbody>
</table>

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

**RoHS2 compliance**
Contact JST for fully automatic crimping applicator.

### Housing

#### <2 to 5 circuits>

#### <6 to 9 circuits>

#### <4 to 10 circuits>

#### <10 to 13, 15 circuits>

**RoHS2 compliance**
Note: Contact JST for Glow Wire compliant connectors.

### Retainer

#### <2 to 5 circuits>

#### <6 to 13, 15 circuits>

**RoHS2 compliance**
Glass-filled PA 66, UL94V-0, natural (ivory)

---

**Note:** Contact JST for Glow Wire compliant connectors.
### Receptacle

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q'ty/box</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>02PAF-6S</td>
<td>A 2.0, B 6.0</td>
<td>1,000</td>
</tr>
<tr>
<td>3</td>
<td>03PAF-6S</td>
<td>A 4.0, B 8.0</td>
<td>1,000</td>
</tr>
<tr>
<td>4</td>
<td>04PAF-6S</td>
<td>A 6.0, B 10.0</td>
<td>500</td>
</tr>
<tr>
<td>5</td>
<td>05PAF-6S</td>
<td>A 8.0, B 12.0</td>
<td>500</td>
</tr>
<tr>
<td>6</td>
<td>06PAF-6S</td>
<td>A 10.0, B 14.0</td>
<td>500</td>
</tr>
<tr>
<td>7</td>
<td>07PAF-6S</td>
<td>A 12.0, B 16.0</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>08PAF-6S</td>
<td>A 14.0, B 18.0</td>
<td>250</td>
</tr>
<tr>
<td>9</td>
<td>09PAF-6S</td>
<td>A 16.0, B 20.0</td>
<td>250</td>
</tr>
<tr>
<td>10</td>
<td>10PAF-6S</td>
<td>A 18.0, B 22.0</td>
<td>250</td>
</tr>
<tr>
<td>11</td>
<td>11PAF-6S</td>
<td>A 20.0, B 24.0</td>
<td>250</td>
</tr>
<tr>
<td>12</td>
<td>12PAF-6S</td>
<td>A 22.0, B 26.0</td>
<td>250</td>
</tr>
<tr>
<td>13</td>
<td>13PAF-6S</td>
<td>A 24.0, B 28.0</td>
<td>250</td>
</tr>
<tr>
<td>14</td>
<td>14PAF-6S</td>
<td>A 26.0, B 30.0</td>
<td>250</td>
</tr>
<tr>
<td>15</td>
<td>15PAF-6S</td>
<td>A 28.0, B 32.0</td>
<td>250</td>
</tr>
<tr>
<td>16</td>
<td>16PAF-6S</td>
<td>A 30.0, B 34.0</td>
<td>250</td>
</tr>
</tbody>
</table>

**Material and Finish**

- Contact: Phosphor bronze, tin-plated (reflow treatment)
- Housing: PA 66, UL94V-0, natural (white)

*RoHS2 compliance
Note*: Unlisted in UL.

### Retainer

<table>
<thead>
<tr>
<th>No. of circuits</th>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q'ty/bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>PAFS-02V-S</td>
<td>A 2.0, B 7.4</td>
<td>1,000</td>
</tr>
<tr>
<td>3</td>
<td>PAFS-03V-S</td>
<td>A 4.0, B 9.4</td>
<td>1,000</td>
</tr>
<tr>
<td>4</td>
<td>PAFS-04V-S</td>
<td>A 6.0, B 11.4</td>
<td>1,000</td>
</tr>
<tr>
<td>5</td>
<td>PAFS-05V-S</td>
<td>A 8.0, B 13.4</td>
<td>1,000</td>
</tr>
<tr>
<td>6</td>
<td>PAFS-06V-S</td>
<td>A 10.0, B 15.4</td>
<td>1,000</td>
</tr>
<tr>
<td>7</td>
<td>PAFS-07V-S</td>
<td>A 12.0, B 17.4</td>
<td>1,000</td>
</tr>
<tr>
<td>8</td>
<td>PAFS-08V-S</td>
<td>A 14.0, B 19.4</td>
<td>1,000</td>
</tr>
<tr>
<td>9</td>
<td>PAFS-09V-S</td>
<td>A 16.0, B 21.4</td>
<td>1,000</td>
</tr>
<tr>
<td>10</td>
<td>PAFS-10V-S</td>
<td>A 18.0, B 23.4</td>
<td>1,000</td>
</tr>
<tr>
<td>11</td>
<td>PAFS-11V-S</td>
<td>A 20.0, B 25.4</td>
<td>1,000</td>
</tr>
<tr>
<td>12</td>
<td>PAFS-12V-S</td>
<td>A 22.0, B 27.4</td>
<td>1,000</td>
</tr>
<tr>
<td>13</td>
<td>PAFS-13V-S</td>
<td>A 24.0, B 29.4</td>
<td>1,000</td>
</tr>
<tr>
<td>14</td>
<td>PAFS-14V-S</td>
<td>A 26.0, B 31.4</td>
<td>1,000</td>
</tr>
<tr>
<td>15</td>
<td>PAFS-15V-S</td>
<td>A 28.0, B 33.4</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Material and Finish**

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

*RoHS2 compliance
Note*: Unlisted in UL.
### Contact

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Applicable wire</th>
<th>Insulation O.D.</th>
<th>Q’ty/ reel</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAL-001T-P0.5</td>
<td>0.13~0.33</td>
<td>1.0~1.5</td>
<td>10,000</td>
</tr>
<tr>
<td>SPAL-002T-P0.5</td>
<td>0.08~0.21</td>
<td>0.9~1.5</td>
<td>10,000</td>
</tr>
</tbody>
</table>

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

**RoHS2 compliance**
- Contact Crimping machine
- Crimping machine
- Crimp applicator
- Dies
- Crimp applicator with die

#### Housing

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Q’ty/ bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>PALR-02VF</td>
<td>2.0 9.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-03VF</td>
<td>4.0 11.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-04VF</td>
<td>6.0 13.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-05VF</td>
<td>8.0 15.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-06VF</td>
<td>10.0 17.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-07VF</td>
<td>12.0 19.4</td>
<td>1,000</td>
</tr>
<tr>
<td>PALR-08VF</td>
<td>14.0 21.4</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**RoHS2 compliance**
- PA 66, UL94V-0, natural (white)

### Retainer

Retainers are interchangeable with those of the PA crimp style retainer mountable type.

---

**Note:** Contact JST for fully automatic crimping applicator.

---

**Panel layout**

---

**Panel layout**
Model number allocation

Contact (Standard type)

**S PHD - 002 T - P 0.5**

- **Form:** S—Strip form, B—Loose piece
- **Series name**
- **Applicable wire range:** 002—AWG #28 to #24
  001—AWG #26 to #22
- **Surface finish:** T—Tin-plated (reflow treatment)
- **Material:** P—Phosphor bronze
- **Terminal size**

Contact (Retainer mountable type)

**S PA - 001 T - P 0.5**

- **Form:** S—Strip form
- **Series name**
- **Applicable wire range:** 001—AWG #26 to #22
- **Surface finish:** T—Tin-plated (reflow treatment)
- **Material:** P—Phosphor bronze
- **Terminal size**

Retainer (Crimp style)

**PM S - 02 V - S**

- **Series name**
- **Part name:** S—Retainer
- **No. of circuits:** 2 to 13, 15
- **Flammability:** V—UL94V-0
- **Color:** S—Natural (Ivory)

Retainer (IDC style)

**PAF S - 02 V - S**

- **Series name**
- **Part name:** S—Retainer
- **No. of circuits:** 2 to 15
- **Flammability:** V—UL94V-0
- **Color:** S—Natural (Ivory)

Housing (Standard type)

**PA P - 02 V - S**

- **Series name**
- **Part name:** Plug
- **No. of circuits:** 2 to 16
- **Flammability:** V—UL94V-0
- **Color:** S—Natural (White), K—Black, R—Red, E—Blue, M—Green, O—Orange, N—Brown, P—Purple, PK—Pink, Y—Yellow,
  L—Lemon yellow, FY—Fluorescent yellow, LE—Light blue,
  H—Gray, TR—Tomato red

Housing (Retainer mountable type)

**PA RP - 02 V - S**

- **Series name**
- **Part name:** Plug (Retainer mountable type)
- **No. of circuits:** 2 to 13, 15
- **Flammability:** V—UL94V-0
- **Color:** None—Natural (White), R—Red, E—Blue, M—Green, Y—Yellow

Socket (IDC style)

**02 PAF - 06 S**

- **Series name**
- **Applicable wire range:** 6—AWG #26
- **Color:** S—Natural (White), R—Red, E—Blue, M—Green, Y—Yellow
## Model number allocation

### Header (Top entry type)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 02 B - PA S K -</td>
<td>Shape of assembled product: B—Top entry type No. of circuits: 2 to 16 Part name: Header Series name Color: S—Natural (White), K—Black, R—Red, E—Blue, M—Green, O—Orange, N—Brown, P—Purple, PK—Pink, Y—Yellow, L—Lemon yellow, FY—Fluorescent yellow, LE—Light blue, H—Gray, TR—Tomato red Indication of clinch: K—Clinched, S—Straight pin Shape: None—Without boss, 1—With boss Resin material: None—Glass-filled PBT, A—PA 66</td>
</tr>
</tbody>
</table>

### Header (Side entry type)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S 03 B - PA S K - 2</td>
<td>Shape of assembled product: S—Side entry type No. of circuits: 2 to 16 Part name: Header Series name Color: S—Natural (White), K—Black, R—Red, E—Blue, M—Green, O—Orange, N—Brown, P—Purple, PK—Pink, Y—Yellow, L—Lemon yellow, LE—Light blue, H—Gray, TR—Tomato red Indication of clinch: K—Clinched, S—Straight pin Shape: None—Without boss, 1—With boss, 2—With bosses on both sides</td>
</tr>
</tbody>
</table>

### Header (Top entry type, N type)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 02 B - PA S K - N</td>
<td>Shape of assembled product: B—Top entry type No. of circuits: 2 to 16 Part name: Header Series name Color: S—Natural Indication of clinch: K—Clinched, S—Straight pin Shape: None—Without boss, 1—With boss Resin material: N—Glass-filled PA 66</td>
</tr>
</tbody>
</table>

### Header (High box type)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH 02 B - PA S K -</td>
<td>Shape of assembled product: BH—Top entry type High box type No. of circuits: 2 to 12, 15 Part name: Header Series name Color: S—Natural (Ivory) \n Indication of clinch: K—Clinched Shape: None—Without boss, 1—With boss</td>
</tr>
</tbody>
</table>

### Header (SMT type)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM 02 B - PA S S - TF</td>
<td>Shape of assembled product: BM—SMT Top entry type SM—SMT Side entry type No. of circuits: 2 to 13, 15 Part name: Header Series name Color: S—Natural (Ivory) \n Indication of clinch: S—Straight pin \n Packaging style: TF—Embossed-taping (Top entry type) TB—Embossed-taping (Side entry type) TFT—With suction tape (Top entry type) TBT—With suction tape (Side entry type) Shape: None—Without boss, 1—With boss</td>
</tr>
</tbody>
</table>

### Pin contact for wire to wire

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S PAL - 001 T - P 0.5</td>
<td>Form: S—Strip form Series name Applicable wire range: 001—AWG #26 to #22 002—AWG #28 to #24 Surface finish: T—Tin-plated (reflow treatment) Material: P—Phosphor bronze Terminal size</td>
</tr>
</tbody>
</table>

### Receptacle housing for wire-to-wire

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAL R - 02 V -</td>
<td>Series name Part name: R—Receptacle No. of circuits: Without panel lock: 2 to 8, With panel lock: 2 to 4, 6 to 8 Flammability: V—UL94V-0 With/Without panel lock: None—Without panel lock F—Without panel lock Color: None—Natural (White), R—Red, E—Blue, M—Green, Y—Yellow</td>
</tr>
</tbody>
</table>