

A3/A4 Series

# 2mm Pitch Miniature Connector



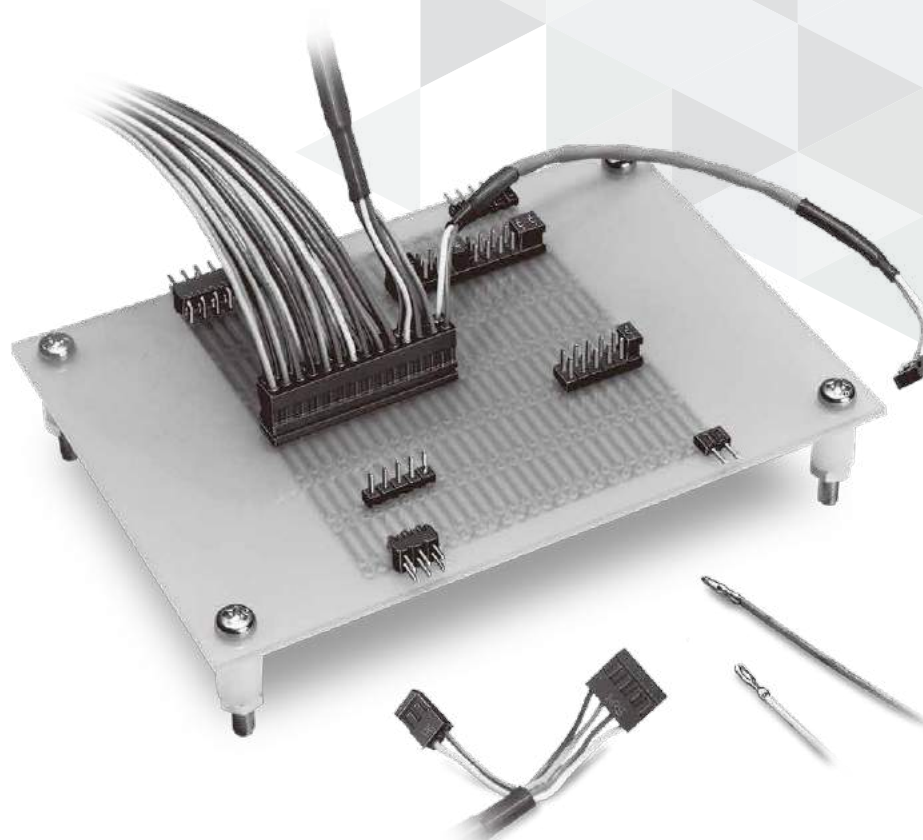
P=2.0 mm



Wide Variation



Compact



Product Page  
<https://www.hirose.com/en/product/compare?searchType=series&targets=A3%2CA4>

May. 2023

## Features

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### 1. Miniature Type and High Density Mounting

These connectors are designed to be a miniature and light weight product, and mounted in the high density. The crimp socket is structured in the 2mm pitch grid, so that connectors can be arranged for use.

### 2. Variation in Number of Contacts

In addition to the dip type, SMT and crimping types are available with broad variations.

### 3. Stacking Variation

When the connector is used for board to board, set 6mm between boards in conjunction with the pin header A3B, or 5.1mm between boards in conjunction with the pin header A3C.

## Applications

Various kinds of electronic equipment

## Product Specifications

|               |         |                                 |              |
|---------------|---------|---------------------------------|--------------|
| Rated Current | 1A      | Operating Temperature (Note 1)  | -55 to +85°C |
| Rated Voltage | 200V AC | Storage Temperature (Note 2)    | -10 to +60°C |
|               |         | Operating Humidity Range        | 40 to 80%    |
|               |         | Storage Humidity Range (Note 2) | 40 to 70%    |

| Items                  | Specifications                                          | Conditions                                                                                                                                      |
|------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Insulation Resistance  | 1000M $\Omega$ Min.                                     | Measured at 500V DC                                                                                                                             |
| Withstanding Voltage   | No flashover or insulation breakdown                    | 650V AC for 1 min                                                                                                                               |
| Contact Resistance     | 15m $\Omega$ Max.                                       | Measured at 0.1A                                                                                                                                |
| Vibration Resistance   | No electrical discontinuity of 10 $\mu$ s or more.      | Frequency : 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.                                                      |
| Humidity Resistance    | Insulation Resistance : 1000M $\Omega$ Min.             | 96 hours at temperature of 40 $\pm$ 2°C and humidity of 90% to 95%                                                                              |
| Temperature Cycles     | No damage, cracks, or parts looseness.                  | -65°C : 30 minutes $\rightarrow$ 15 to 35°C : MAX 5 minutes $\rightarrow$ 125°C : 30 minutes $\rightarrow$ 15 to 35°C : MAX 5 minutes, 5 cycles |
| Mating Durability      | Contact Resistance : 20m $\Omega$ Max.                  | 100 times                                                                                                                                       |
| Solder Heat Resistance | No dissolution of the resin part affecting performance. | Solder tank : 260°C , 10sec.<br>Hand soldering : temperature of soldering iron at 350°C for 3sec.                                               |

Note 1 : Includes temperature rise caused by current flow.

Note 2 : The storage condition refers to long-term storage of the product on the shelf before assembly.

Please use the operating temperature for temporary storage such as pre-assembly and during shipping.

Note 3 : Information contained in this catalog represents general requirements for this Series.

Contact us for the drawings and specifications for a specific part number shown.

## Materials / Finish

| Item                      | Component | Material           | Color / Finish         | Remarks |  |  |
|---------------------------|-----------|--------------------|------------------------|---------|--|--|
| Pin Header (Through Hole) | Insulator | Polyamide          | Black                  | UL94V-0 |  |  |
| Receptacle (Through Hole) |           | PBT                |                        |         |  |  |
| Pin Header (SMT)          |           | PPS                | Light Brown            |         |  |  |
| Receptacle (SMT)          |           | PBT                | Black                  |         |  |  |
| Crimp Socket              |           |                    |                        |         |  |  |
| Pin Header                | Contact   | Brass              | Partially Gold Plating | -       |  |  |
| Receptacle                |           | Phosphorous Bronze |                        |         |  |  |
| Crimp Contact             |           |                    |                        |         |  |  |

Note : Slight variations in color of the plastic compounds do not affect form, fit or function of the connector.

## Product Number Structure

Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

### Pin Header (Through Hole type)

**A 3B - 12 P - 2 DS**

① ② ③ ④ ⑤ ⑥

|               |                                                                                                                                                                                                                                                          |                  |                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------|
| ① Series Name | A                                                                                                                                                                                                                                                        | ④ Connector Type | P, PA : Pin Header                           |
| ② Series No.  | 3B : Dual-Row<br>4B : Single-Row<br>3C : Dual-Row (Low Profile Product)                                                                                                                                                                                  | ⑤ Contact Pitch  | 2mm                                          |
| ③ No. of Pos. | Dual-Row : 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 44, 50 (44 and 50 pos. correspond to the right angle type only. Straight angle type corresponds to the A3C type.)<br>Single-Row : 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | ⑥ Housing Type   | DS : Right Angle Type<br>DSA : Straight Type |

### Pin Header (SMT type)

**A 3 A - 44 P A - 2 SV**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

|                    |                                                         |                  |                          |
|--------------------|---------------------------------------------------------|------------------|--------------------------|
| ① Series Name      | A                                                       | ⑤ Connector Type | P : Pin Header           |
| ② Series No.       | 3                                                       | ⑥ A              | Partially Gold Plating   |
| ③ Positioning Boss | A : With Boss<br>No Symbol : Without Boss               | ⑦ Contact Pitch  | 2mm                      |
| ④ No. of Pos.      | 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 28, 30, 32, 44, 50 | ⑧ Housing Type   | SV : Board Vertical Type |

### Receptacle (Through Hole type)

**A 3 - 44 D - 2 DS**

① ② ③ ④ ⑤ ⑥

|               |                                                                        |                  |                                                                                                                                                     |
|---------------|------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| ① Series Name | A                                                                      | ④ Connector Type | DA : Receptacle                                                                                                                                     |
| ② Series No.  | 3 : Dual-Row<br>3C : Dual-Row<br>3D : Dual-Row (For FPC, FFC)(Note)    | ⑤ Contact Pitch  | 2mm                                                                                                                                                 |
| ③ No. of Pos. | 3 : 44, 50<br>3C, 3D : 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 28, 32, 50 | ⑥ Housing Type   | DS : Right Angle Type<br>DSA : Straight Type (Lead Length 3mm)<br>DSC : Straight Type (Lead Length 2mm)<br>DSE : Straight Type (Lead Length 1.27mm) |

Note : A standoff has been added to the center portion of the connector to provide stable mounting.

## ■ Receptacle (SMT Type)

### A 3 A - 32 D A - 2 SV

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

|                    |                                                 |                  |                          |
|--------------------|-------------------------------------------------|------------------|--------------------------|
| ① Series Name      | A                                               | ⑤ Connector Type | D : Receptacle           |
| ② Series No.       | 3                                               | ⑥ A              | Partially Gold Plating   |
| ③ Positioning Boss | A : With Boss<br>No Symbol : Without Boss       | ⑦ Contact Pitch  | 2mm                      |
| ④ No. of Pos.      | 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 28, 30, 32 | ⑧ Housing Type   | SV : Board Vertical Type |

## ■ Crimp Socket

### A 3B - 44 D - 2 C

① ② ③ ④ ⑤ ⑥

|               |                                                                                                   |                     |                                |
|---------------|---------------------------------------------------------------------------------------------------|---------------------|--------------------------------|
| ① Series Name | A                                                                                                 | ④ Contact Alignment | D : Dual-Row<br>S : Single-Row |
| ② Series No.  | 3B : Dual-Row<br>4B : Single-Row                                                                  | ⑤ Contact Pitch     | 2mm                            |
| ③ No. of Pos. | Dual-Row : 8, 10, 12, 14, 18, 20, 24, 28, 44<br>Single-Row : 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 18 | ⑥ Connection Type   | C : Crimping                   |

## ■ Crimp Contact

### A 3B - 2630 SCFC

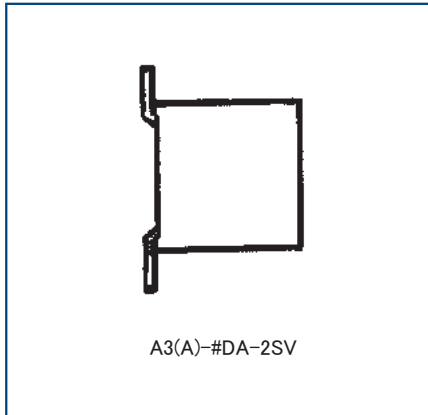
① ② ③ ④

|               |    |                        |                                            |
|---------------|----|------------------------|--------------------------------------------|
| ① Series Name | A  | ③ Applicable Wire Size | 2630 : 26 to 30 AWG                        |
| ② Series No.  | 3B | ④ Packaging Type       | SCFC : Reel Contact<br>SCC : Loose Contact |

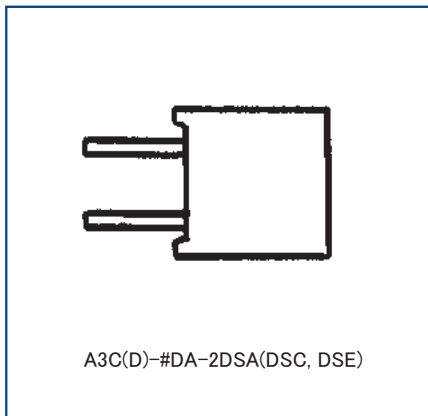
## Connector Mating Combinations Diagram

### ● Receptacle and Socket Side

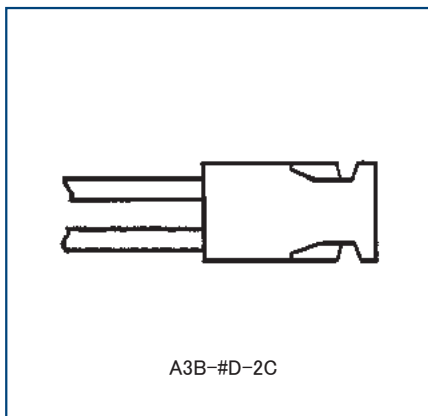
Straight SMT Type



Straight Through Hole Type

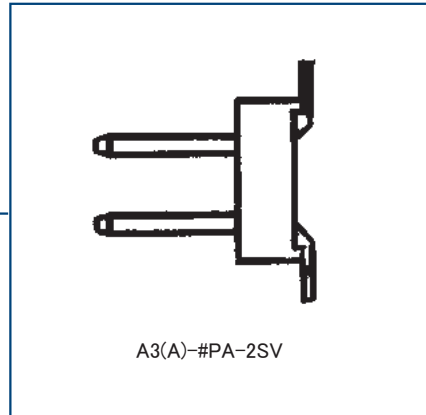


Cable Crimping Type

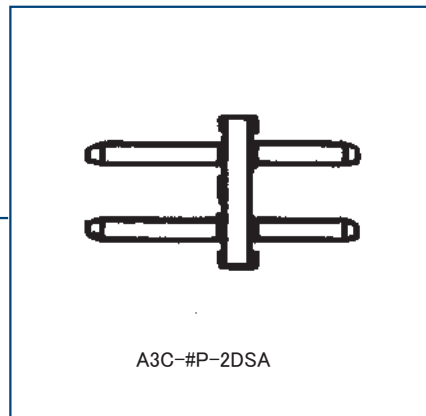


### ● Pin Header Side

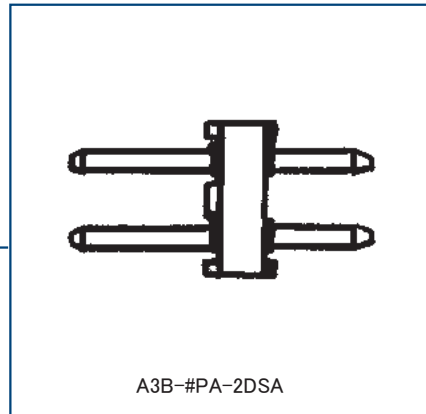
Straight SMT Type



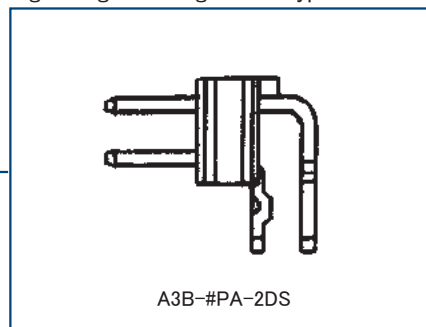
Straight Through Hole (low profile) Type



Straight Through Hole Type

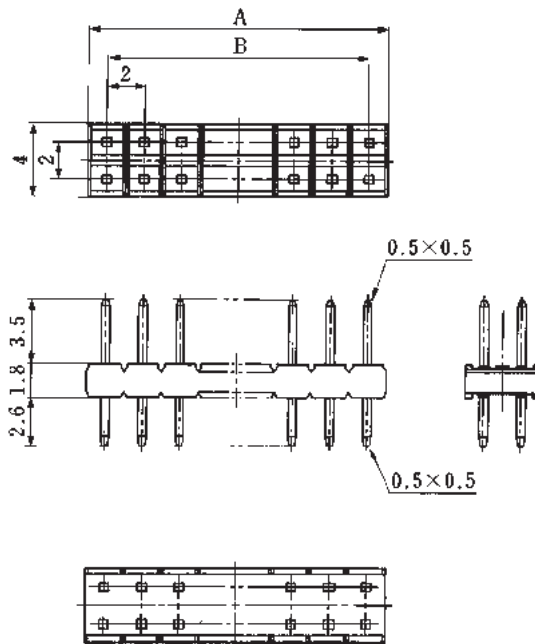
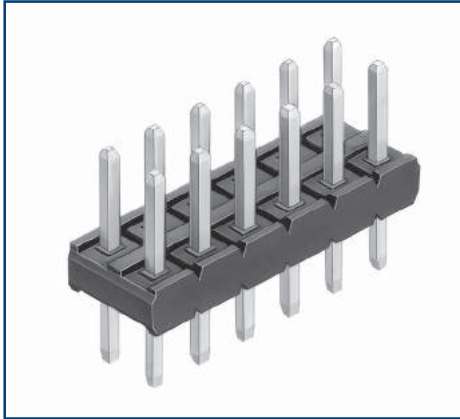


Right Angle Through Hole Type



## Pin Header

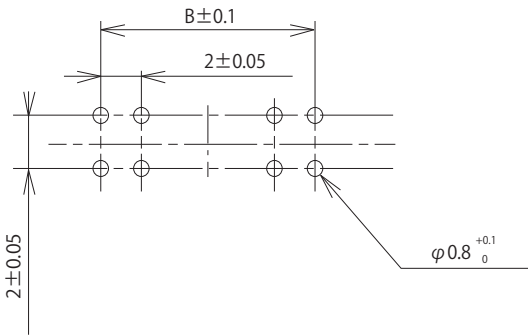
### ●A3B Straight Type (Dual-Row)



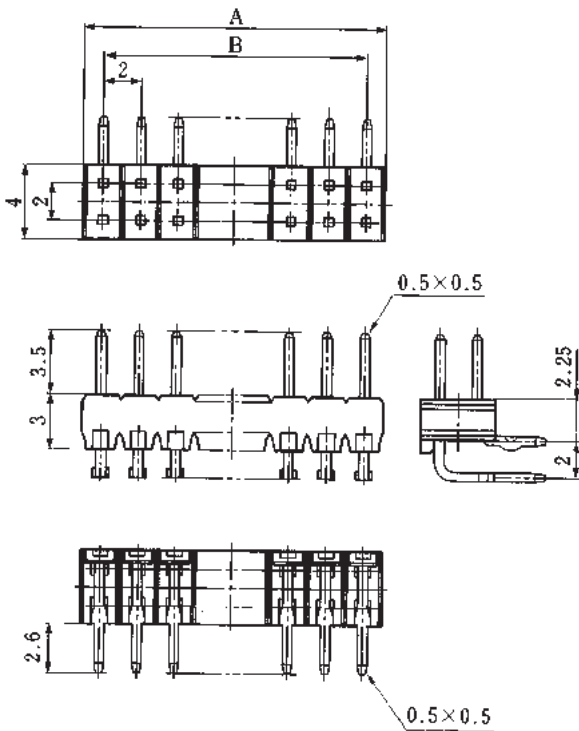
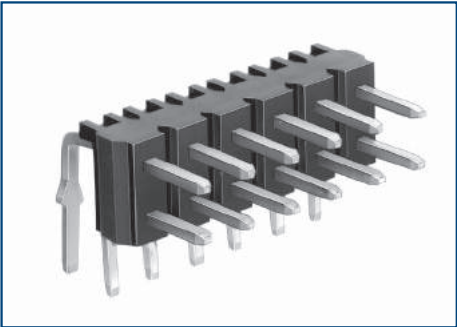
Unit : mm

| Part No.          | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit  |
|-------------------|------------------|-------------|----|----|------|----------------|
| A3B-4PA-2DSA(51)  | CL0621-0401-1-51 | 4           | 4  | 2  | ○    | 100pcs per bag |
| A3B-6PA-2DSA(51)  | CL0621-0402-4-51 | 6           | 6  | 4  |      |                |
| A3B-8PA-2DSA(51)  | CL0621-0403-7-51 | 8           | 8  | 6  |      |                |
| A3B-10PA-2DSA(51) | CL0621-0404-0-51 | 10          | 10 | 8  |      |                |
| A3B-12PA-2DSA(51) | CL0621-0405-2-51 | 12          | 12 | 10 |      |                |
| A3B-14PA-2DSA(51) | CL0621-0406-5-51 | 14          | 14 | 12 |      |                |
| A3B-16PA-2DSA(51) | CL0621-0407-8-51 | 16          | 16 | 14 |      |                |
| A3B-18PA-2DSA(51) | CL0621-0408-0-51 | 18          | 18 | 16 |      |                |
| A3B-20PA-2DSA(51) | CL0621-0409-3-51 | 20          | 20 | 18 |      |                |
| A3B-22PA-2DSA(51) | CL0621-0410-2-51 | 22          | 22 | 20 |      |                |
| A3B-24PA-2DSA(51) | CL0621-0411-5-51 | 24          | 24 | 22 |      |                |
| A3B-26PA-2DSA(51) | CL0621-0412-8-51 | 26          | 26 | 24 |      |                |
| A3B-28PA-2DSA(51) | CL0621-0413-0-51 | 28          | 28 | 26 |      |                |
| A3B-30PA-2DSA(51) | CL0621-0414-3-51 | 30          | 30 | 28 |      |                |
| A3B-32PA-2DSA(51) | CL0621-0415-6-51 | 32          | 32 | 30 |      |                |

Recommended PCB Dimensions



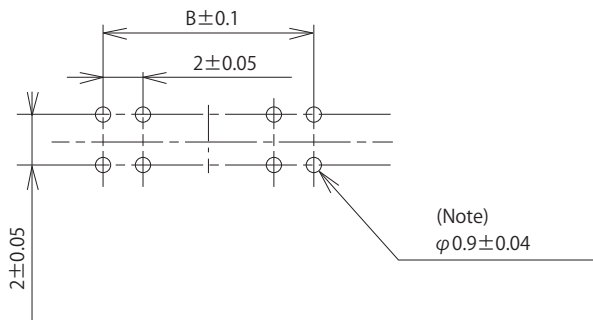
A3B Right Angle Type (Dual-Row)



Unit : mm

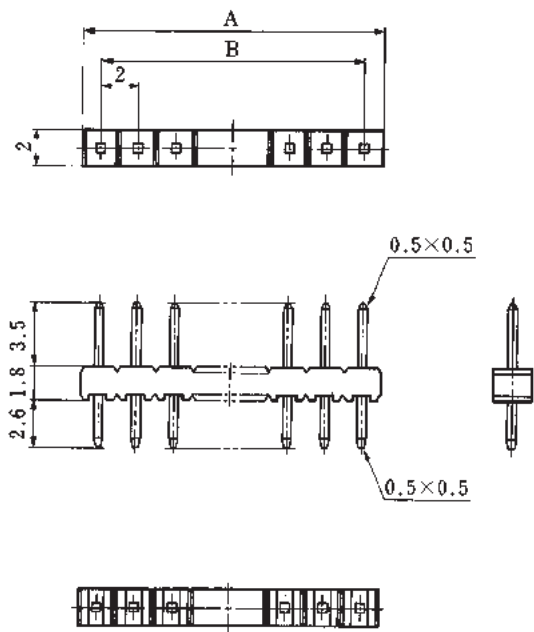
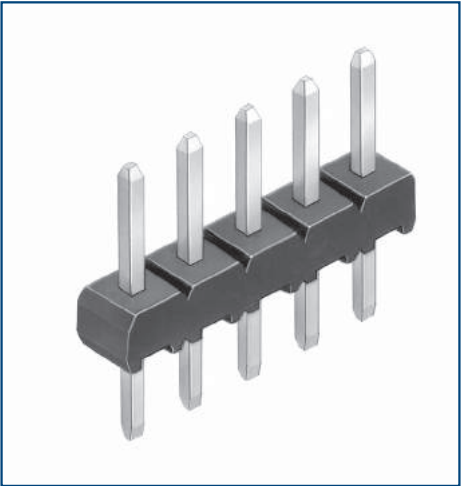
| Part No.         | HRS No.          | No. of Pos. | A  | B  | Kink Positions       | RoHS | Purchase Unit   |
|------------------|------------------|-------------|----|----|----------------------|------|-----------------|
| A3B-4PA-2DS(51)  | CL0621-0351-5-51 | 4           | 4  | 2  | 2                    | ○    | 100pcs per tray |
| A3B-6PA-2DS(51)  | CL0621-0352-8-51 | 6           | 6  | 4  | 1 or 2 alternately   |      |                 |
| A3B-8PA-2DS(51)  | CL0621-0353-0-51 | 8           | 8  | 6  | 2 alternately        |      |                 |
| A3B-10PA-2DS(51) | CL0621-0354-3-51 | 10          | 10 | 8  | 2 or 3 alternately   |      |                 |
| A3B-12PA-2DS(51) | CL0621-0355-6-51 | 12          | 12 | 10 | 3 alternately        |      |                 |
| A3B-14PA-2DS(51) | CL0621-0356-9-51 | 14          | 14 | 12 | 3 or 4 alternately   |      |                 |
| A3B-16PA-2DS(51) | CL0621-0357-1-51 | 16          | 16 | 14 | 4 alternately        |      |                 |
| A3B-18PA-2DS(51) | CL0621-0358-4-51 | 18          | 18 | 16 | 4 or 5 alternately   |      |                 |
| A3B-20PA-2DS(51) | CL0621-0359-7-51 | 20          | 20 | 18 | 5 alternately        |      | 50pcs per tray  |
| A3B-22PA-2DS(51) | CL0621-0360-6-51 | 22          | 22 | 20 | 5 or 6 alternately   |      |                 |
| A3B-24PA-2DS(51) | CL0621-0361-9-51 | 24          | 24 | 22 | 6 alternately        |      |                 |
| A3B-26PA-2DS(51) | CL0621-0362-1-51 | 26          | 26 | 24 | 6 or 7 alternately   |      |                 |
| A3B-28PA-2DS(51) | CL0621-0363-4-51 | 28          | 28 | 26 | 7 alternately        |      |                 |
| A3B-30PA-2DS(51) | CL0621-0364-7-51 | 30          | 30 | 28 | 7 or 8 alternately   |      |                 |
| A3B-32PA-2DS(51) | CL0621-0365-0-51 | 32          | 32 | 30 | 8 alternately        |      |                 |
| A3B-44PA-2DS(51) | CL0621-0377-9-51 | 44          | 44 | 42 | 11 alternately       |      | 40pcs per tray  |
| A3B-50PA-2DS(51) | CL0621-0383-1-51 | 50          | 50 | 48 | 12 or 13 alternately |      |                 |

### ■ Recommended PCB Dimensions (t=1.6)



Note : Diameter of 28 or more contacts is  $\phi 0.95 \pm 0.04$ .

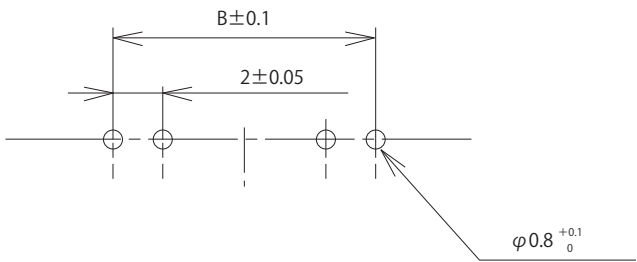
●A4B Straight Type (Single-Row)



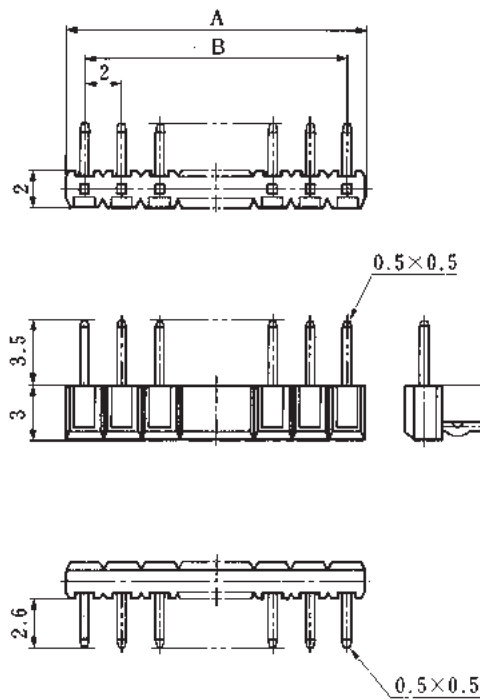
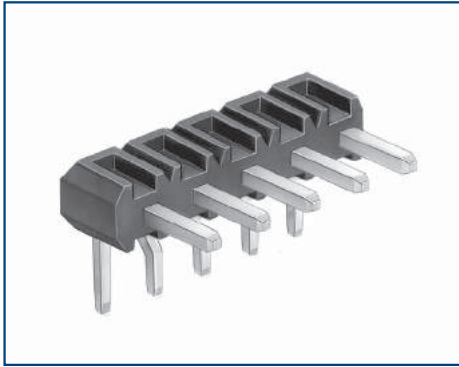
Unit : mm

| Part No.          | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit  |
|-------------------|------------------|-------------|----|----|------|----------------|
| A4B-2PA-2DSA(51)  | CL0622-0401-8-51 | 2           | 4  | 2  | ○    | 100pcs per bag |
| A4B-3PA-2DSA(51)  | CL0622-0402-0-51 | 3           | 6  | 4  |      |                |
| A4B-4PA-2DSA(51)  | CL0622-0403-3-51 | 4           | 8  | 6  |      |                |
| A4B-5PA-2DSA(51)  | CL0622-0404-6-51 | 5           | 10 | 8  |      |                |
| A4B-6PA-2DSA(51)  | CL0622-0405-9-51 | 6           | 12 | 10 |      |                |
| A4B-7PA-2DSA(51)  | CL0622-0406-1-51 | 7           | 14 | 12 |      |                |
| A4B-8PA-2DSA(51)  | CL0622-0407-4-51 | 8           | 16 | 14 |      |                |
| A4B-9PA-2DSA(51)  | CL0622-0408-7-51 | 9           | 18 | 16 |      |                |
| A4B-10PA-2DSA(51) | CL0622-0409-0-51 | 10          | 20 | 18 |      |                |
| A4B-12PA-2DSA(51) | CL0622-0411-1-51 | 12          | 24 | 22 |      |                |
| A4B-13PA-2DSA(51) | CL0622-0412-4-51 | 13          | 26 | 24 |      |                |
| A4B-14PA-2DSA(51) | CL0622-0413-7-51 | 14          | 28 | 26 |      |                |
| A4B-15PA-2DSA(51) | CL0622-0414-0-51 | 15          | 30 | 28 |      |                |
| A4B-16PA-2DSA(51) | CL0622-0415-2-51 | 16          | 32 | 30 |      |                |

■Recommended PCB Dimensions



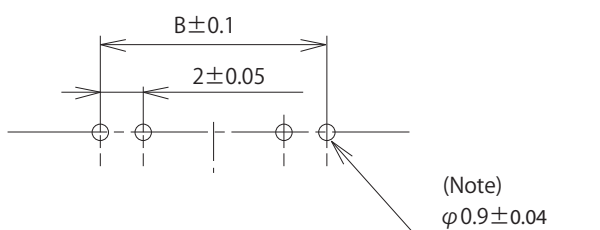
## ●A4B Right Angle Type (Single-Row)



Unit : mm

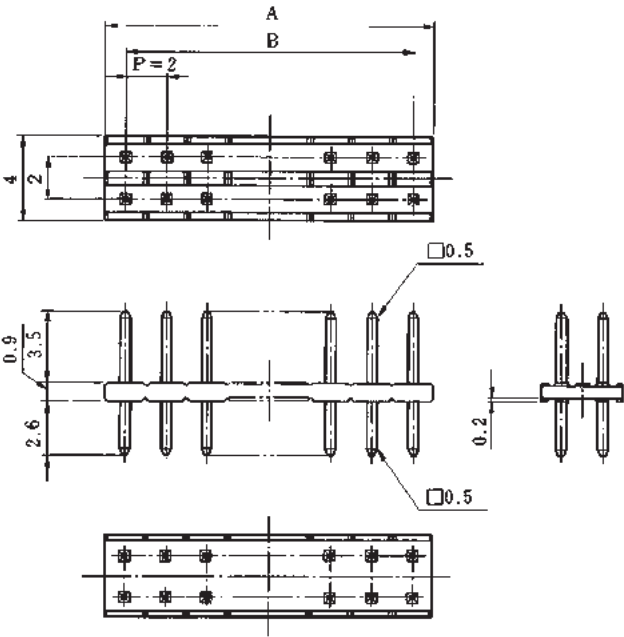
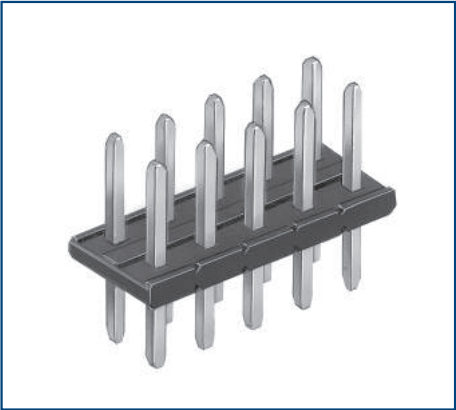
| Part No.         | HRS No.          | No. of Pos. | A  | B  | Kink Positions     | RoHS | Purchase Unit  |
|------------------|------------------|-------------|----|----|--------------------|------|----------------|
| A4B-2PA-2DS(51)  | CL0622-0351-1-51 | 2           | 4  | 2  | 2                  | ○    | 100pcs per bag |
| A4B-3PA-2DS(51)  | CL0622-0352-4-51 | 3           | 6  | 4  | 1 or 2 alternately |      |                |
| A4B-4PA-2DS(51)  | CL0622-0353-7-51 | 4           | 8  | 6  | 2 alternately      |      |                |
| A4B-5PA-2DS(51)  | CL0622-0354-0-51 | 5           | 10 | 8  | 2 or 3 alternately |      |                |
| A4B-6PA-2DS(51)  | CL0622-0355-2-51 | 6           | 12 | 10 | 3 alternately      |      |                |
| A4B-7PA-2DS(51)  | CL0622-0356-5-51 | 7           | 14 | 12 | 3 or 4 alternately |      |                |
| A4B-8PA-2DS(51)  | CL0622-0357-8-51 | 8           | 16 | 14 | 4 alternately      |      |                |
| A4B-9PA-2DS(51)  | CL0622-0358-0-51 | 9           | 18 | 16 | 4 or 5 alternately |      |                |
| A4B-10PA-2DS(51) | CL0622-0359-3-51 | 10          | 20 | 18 | 5 alternately      |      |                |
| A4B-11PA-2DS(51) | CL0622-0360-2-51 | 11          | 22 | 20 | 5 or 6 alternately |      |                |
| A4B-12PA-2DS(51) | CL0622-0361-5-51 | 12          | 24 | 22 | 6 alternately      |      |                |
| A4B-13PA-2DS(51) | CL0622-0362-8-51 | 13          | 26 | 24 | 6 or 7 alternately |      |                |
| A4B-14PA-2DS(51) | CL0622-0363-0-51 | 14          | 28 | 26 | 7 alternately      |      |                |
| A4B-15PA-2DS(51) | CL0622-0364-3-51 | 15          | 30 | 28 | 7 or 8 alternately |      |                |
| A4B-16PA-2DS(51) | CL0622-0365-6-51 | 16          | 32 | 30 | 8 alternately      |      |                |

## ■Recommended PCB Dimensions (t=1.6)



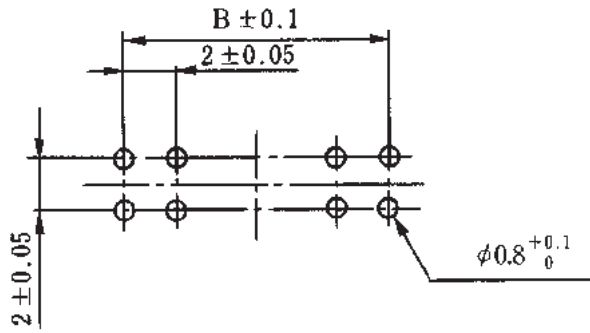
Note : Diameter of 14 or more contacts is φ 0.95 ± 0.04.

●A3C Straight Type (Dual-Row for Low Profile Product)

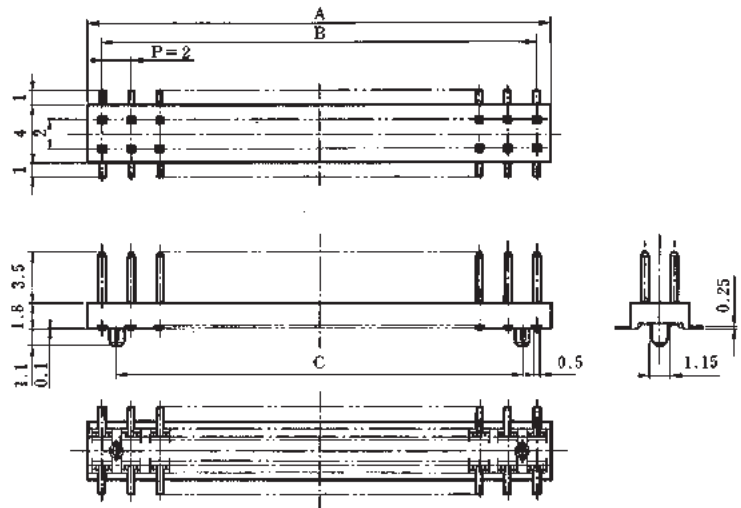
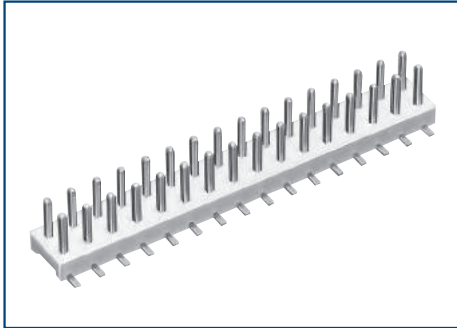


| Unit : mm        |                  |             |    |    |      |                |
|------------------|------------------|-------------|----|----|------|----------------|
| Part No.         | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit  |
| A3C-2P-2DSA(30)  | CL0621-0601-0-30 | 2           | 2  | -  | ○    | 100pcs per bag |
| A3C-4P-2DSA(30)  | CL0621-0602-3-30 | 4           | 4  | 2  |      |                |
| A3C-6P-2DSA(30)  | CL0621-0603-6-30 | 6           | 6  | 4  |      |                |
| A3C-8P-2DSA(30)  | CL0621-0604-9-30 | 8           | 8  | 6  |      |                |
| A3C-10P-2DSA(30) | CL0621-0605-1-30 | 10          | 10 | 8  |      |                |
| A3C-12P-2DSA(30) | CL0621-0606-4-30 | 12          | 12 | 10 |      |                |
| A3C-14P-2DSA(30) | CL0621-0607-7-30 | 14          | 14 | 12 |      |                |
| A3C-16P-2DSA(30) | CL0621-0608-0-30 | 16          | 16 | 14 |      |                |
| A3C-18P-2DSA(30) | CL0621-0609-2-30 | 18          | 18 | 16 |      |                |
| A3C-20P-2DSA(30) | CL0621-0610-1-30 | 20          | 20 | 18 |      |                |
| A3C-24P-2DSA(30) | CL0621-0612-7-30 | 24          | 24 | 22 |      |                |
| A3C-26P-2DSA(30) | CL0621-0613-0-30 | 26          | 26 | 24 |      |                |
| A3C-28P-2DSA(30) | CL0621-0614-2-30 | 28          | 28 | 26 |      |                |
| A3C-32P-2DSA(30) | CL0621-0615-5-30 | 32          | 32 | 30 |      |                |
| A3C-44P-2DSA(30) | CL0621-0622-0-30 | 44          | 44 | 42 |      |                |
| A3C-48P-2DSA(30) | CL0621-0625-9-30 | 48          | 48 | 46 |      |                |
| A3C-50P-2DSA(30) | CL0621-0628-7-30 | 50          | 50 | 48 |      |                |

## Recommended PCB Dimensions



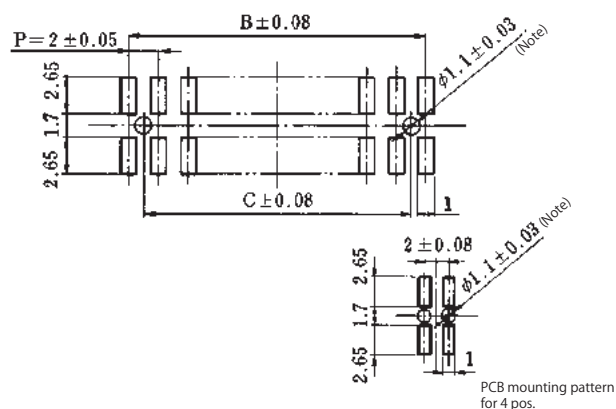
## SMT Type



Unit : mm

| Part No.         | HRS No.          | No. of Pos. | A  | B  |    | RoHS | Purchase Unit   |
|------------------|------------------|-------------|----|----|----|------|-----------------|
| A3-4PA-2SV(71)   | CL0621-1000-6-71 | 4           | 4  | 2  | -  | ○    | 120pcs per tube |
| A3A-4PA-2SV(71)  | CL0621-1040-0-71 |             |    |    | 2  |      |                 |
| A3-6PA-2SV(71)   | CL0621-1001-9-71 | 6           | 6  | 4  | -  |      | 80pcs per tube  |
| A3A-6PA-2SV(71)  | CL0621-1041-3-71 |             |    |    | 2  |      |                 |
| A3-8PA-2SV(71)   | CL0621-1002-1-71 | 8           | 8  | 6  | -  |      | 60pcs per tube  |
| A3A-8PA-2SV(71)  | CL0621-1042-6-71 |             |    |    | 4  |      |                 |
| A3-10PA-2SV(71)  | CL0621-1003-4-71 | 10          | 10 | 8  | -  |      | 48pcs per tube  |
| A3A-10PA-2SV(71) | CL0621-1043-9-71 |             |    |    | 6  |      |                 |
| A3-12PA-2SV(71)  | CL0621-1004-7-71 | 12          | 12 | 10 | -  |      | 40pcs per tube  |
| A3A-12PA-2SV(71) | CL0621-1044-1-71 |             |    |    | 8  |      |                 |
| A3-14PA-2SV(71)  | CL0621-1005-0-71 | 14          | 14 | 12 | -  |      | 34pcs per tube  |
| A3A-14PA-2SV(71) | CL0621-1045-4-71 |             |    |    | 10 |      |                 |
| A3-16PA-2SV(71)  | CL0621-1006-2-71 | 16          | 16 | 14 | -  |      | 30pcs per tube  |
| A3A-16PA-2SV(71) | CL0621-1046-7-71 |             |    |    | 12 |      |                 |
| A3-20PA-2SV(71)  | CL0621-1008-8-71 | 20          | 20 | 18 | -  |      | 24pcs per tube  |
| A3A-20PA-2SV(71) | CL0621-1048-2-71 |             |    |    | 16 |      |                 |
| A3-24PA-2SV(71)  | CL0621-1010-0-71 | 24          | 24 | 22 | -  |      | 20pcs per tube  |
| A3A-24PA-2SV(71) | CL0621-1050-4-71 |             |    |    | 20 |      |                 |
| A3-28PA-2SV(71)  | CL0621-1012-5-71 | 28          | 28 | 26 | -  |      | 17pcs per tube  |
| A3A-28PA-2SV(71) | CL0621-1052-0-71 |             |    |    | 24 |      |                 |
| A3-32PA-2SV(71)  | CL0621-1014-0-71 | 32          | 32 | 30 | -  |      | 15pcs per tube  |
| A3A-32PA-2SV(71) | CL0621-1054-5-71 |             |    |    | 28 |      |                 |
| A3-44PA-2SV(71)  | CL0621-1015-3-71 | 44          | 44 | 42 | -  |      | 11pcs per tube  |
| A3A-44PA-2SV(71) | CL0621-1055-8-71 |             |    |    | 40 |      |                 |
| A3-50PA-2SV(71)  | CL0621-1016-6-71 | 50          | 50 | 48 | -  |      | 9pcs per tube   |
| A3A-50PA-2SV(71) | CL0621-1056-0-71 |             |    |    | 46 |      |                 |

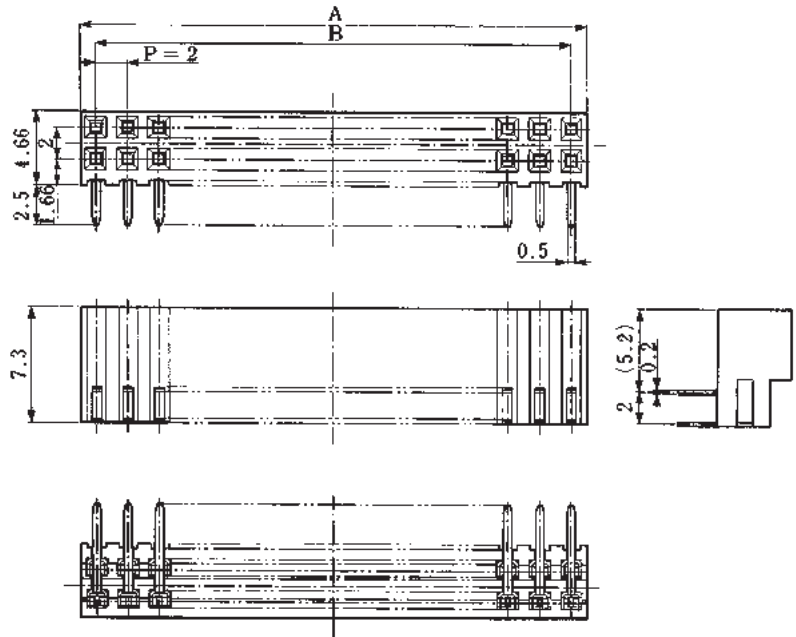
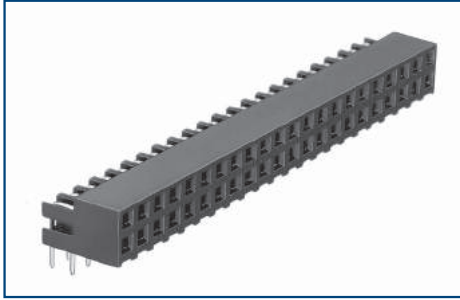
## Recommended PCB Dimensions



Note : The connector positioning boss is a structure that is lightly press-fitted into the board hole. When mounting on the board, press the connector lightly from above to make sure that the positioning boss is inserted securely into the board hole and that the connector leads are not floating off the board. For automatic board placement, recommended boss dia. is  $\phi 1.2 \pm 0.1$ .

## Receptacle

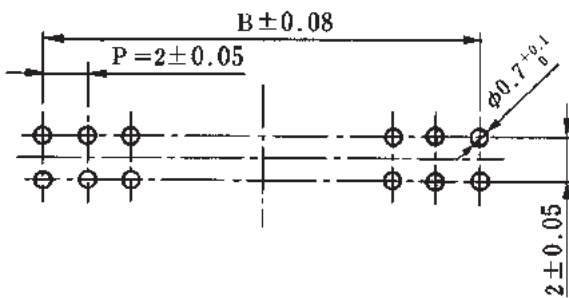
### ● A3 Right Angle Type (Dual-Row)



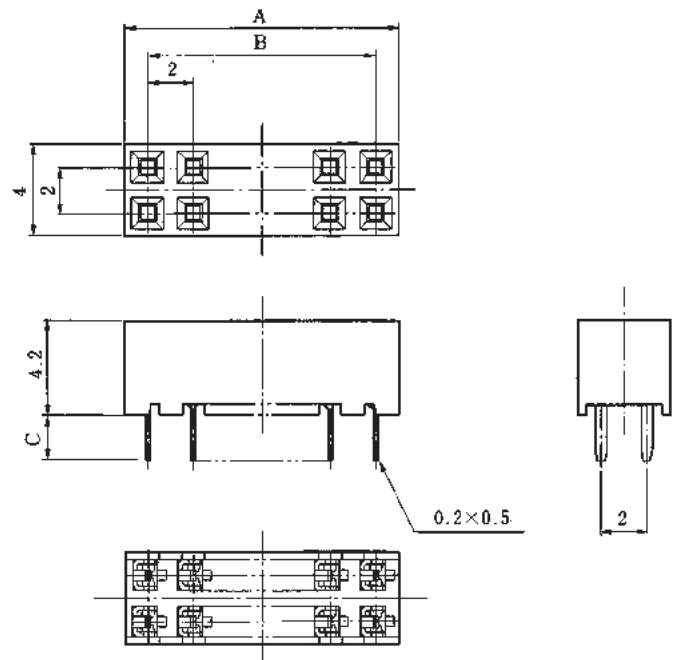
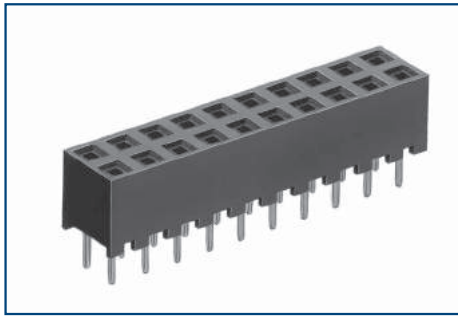
Unit : mm

| Part No.        | HRS No.          | A  | B  | RoHS | Purchase Unit  |
|-----------------|------------------|----|----|------|----------------|
| A3-44DA-2DS(71) | CL0621-0711-9-71 | 44 | 42 | ○    | 40pcs per tray |
| A3-50DA-2DS(71) | CL0621-0714-7-71 | 50 | 48 |      |                |

### ■ Recommended PCB Dimensions



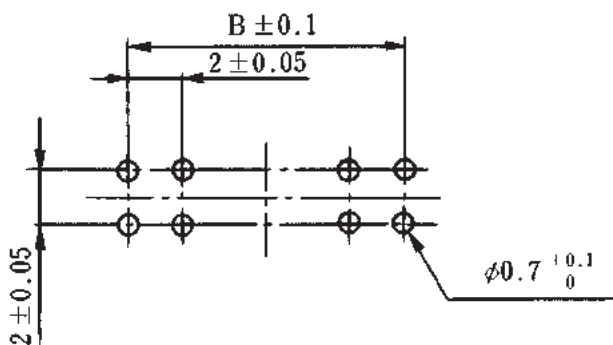
## ●A3C Straight Type (Dual-Row)



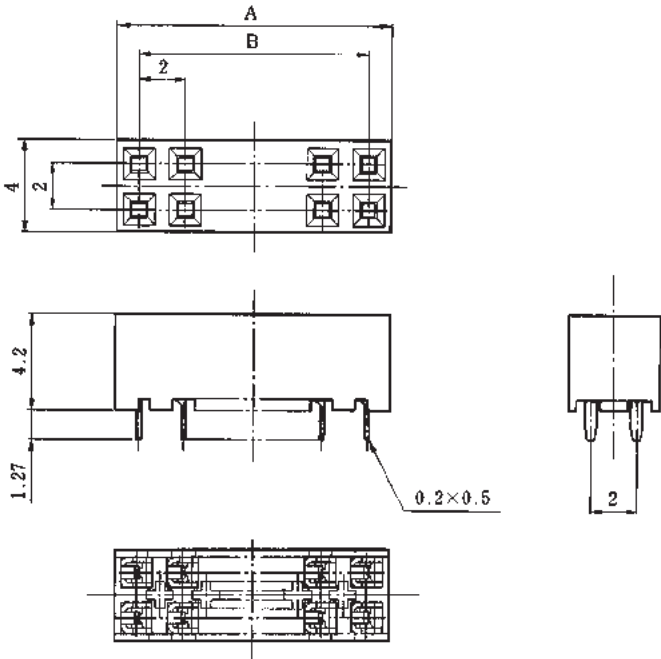
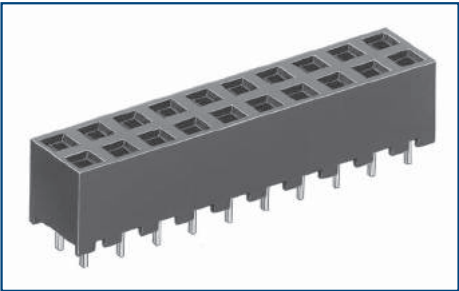
Unit : mm

| Part No.          | HRS No.          | No. of Pos. | A  | B  | C    | RoHS | Purchase Unit   |
|-------------------|------------------|-------------|----|----|------|------|-----------------|
| A3C-4DA-2DSA(71)  | CL0621-0501-6-71 | 4           | 4  | 2  | 3    | ○    | 520pcs per tray |
| A3C-4DA-2DSC(71)  | CL0621-0531-7-71 |             |    |    | 2    |      |                 |
| A3C-6DA-2DSA(71)  | CL0621-0502-9-71 | 6           | 6  | 4  | 3    |      | 350pcs per tray |
| A3C-6DA-2DSC(71)  | CL0621-0532-0-71 |             |    |    | 2    |      |                 |
| A3C-8DA-2DSA(71)  | CL0621-0503-1-71 | 8           | 8  | 6  | 3    |      | 270pcs per tray |
| A3C-8DA-2DSC(71)  | CL0621-0533-2-71 |             |    |    | 2    |      |                 |
| A3C-10DA-2DSA(71) | CL0621-0504-4-71 | 10          | 10 | 8  | 3    |      | 220pcs per tray |
| A3C-10DA-2DSC(71) | CL0621-0534-5-71 |             |    |    | 2    |      |                 |
| A3C-12DA-2DSA(71) | CL0621-0505-7-71 | 12          | 12 | 10 | 3    |      | 180pcs per tray |
| A3C-12DA-2DSC(71) | CL0621-0535-8-71 |             |    |    | 2    |      |                 |
| A3C-14DA-2DSA(71) | CL0621-0506-0-71 | 14          | 14 | 12 | 3    |      | 150pcs per tray |
| A3C-14DA-2DSC(71) | CL0621-0536-0-71 |             |    |    | 2    |      |                 |
| A3C-16DA-2DSA(71) | CL0621-0507-2-71 | 16          | 16 | 14 | 3    |      | 130pcs per tray |
| A3C-16DA-2DSC(71) | CL0621-0537-3-71 |             |    |    | 2    |      |                 |
| A3C-18DA-2DSA(71) | CL0621-0508-5-71 | 18          | 18 | 16 | 3    |      | 120pcs per tray |
| A3C-18DA-2DSC(71) | CL0621-0538-6-71 |             |    |    | 2    |      |                 |
| A3C-20DA-2DSA(71) | CL0621-0509-8-71 | 20          | 20 | 18 | 3    |      | 110pcs per tray |
| A3C-20DA-2DSC(71) | CL0621-0539-9-71 |             |    |    | 2    |      |                 |
| A3C-24DA-2DSA(71) | CL0621-0511-0-71 | 24          | 24 | 22 | 3    |      | 90pcs per tray  |
| A3C-24DA-2DSC(71) | CL0621-0541-0-71 |             |    |    | 2    |      |                 |
| A3C-24DA-2DSE(71) | CL0621-0571-1-71 |             |    |    | 1.27 |      | 60pcs per tray  |
| A3C-28DA-2DSA(71) | CL0621-0513-5-71 | 28          | 28 | 26 | 3    |      | 70pcs per tray  |
| A3C-28DA-2DSC(71) | CL0621-0543-6-71 |             |    |    | 2    |      |                 |
| A3C-32DA-2DSA(71) | CL0621-0515-0-71 | 32          | 32 | 30 | 3    |      | 60pcs per tray  |
| A3C-32DA-2DSC(71) | CL0621-0545-1-71 |             |    |    | 2    |      |                 |
| A3C-32DA-2DSE(71) | CL0621-0575-2-71 |             |    |    | 1.27 |      |                 |
| A3C-50DA-2DSA(71) | CL0621-0524-1-71 | 50          | 50 | 48 | 3    |      | 40pcs per tray  |
| A3C-50DA-2DSC(71) | CL0621-0554-2-71 |             |    |    | 2    |      |                 |
| A3C-50DA-2DSE(71) | CL0621-0584-3-71 |             |    |    | 1.27 |      |                 |

## Recommended PCB Dimensions



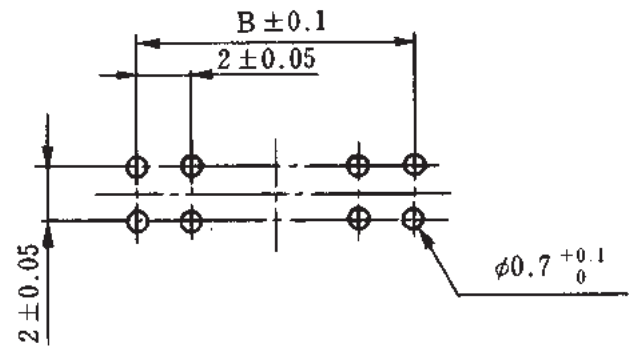
●A3D Straight Type (Dual-Row for FPC and FFC)



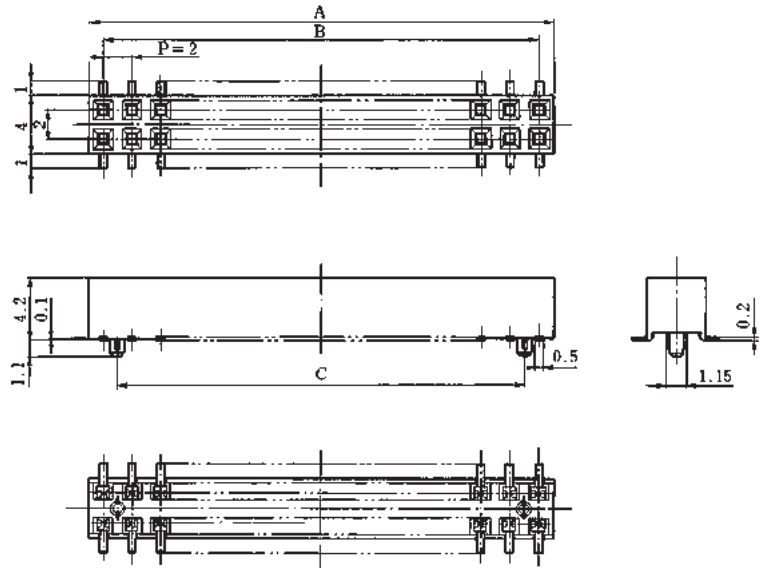
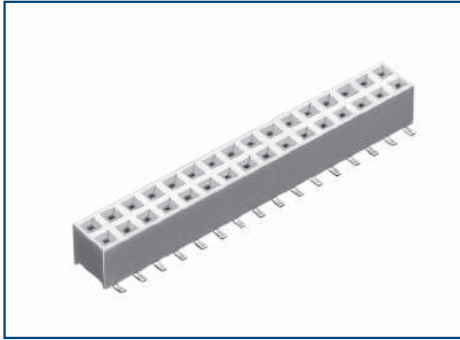
Unit : mm

| Part No.          | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit   |
|-------------------|------------------|-------------|----|----|------|-----------------|
| A3D-8DA-2DSE(71)  | CL0621-0753-9-71 | 8           | 8  | 6  | ○    | 540pcs per tray |
| A3D-14DA-2DSE(71) | CL0621-0756-7-71 | 14          | 14 | 12 |      | 300pcs per tray |
| A3D-44DA-2DSE(71) | CL0621-0766-0-71 | 44          | 44 | 42 |      | 100pcs per tray |

■Recommended PCB Dimensions



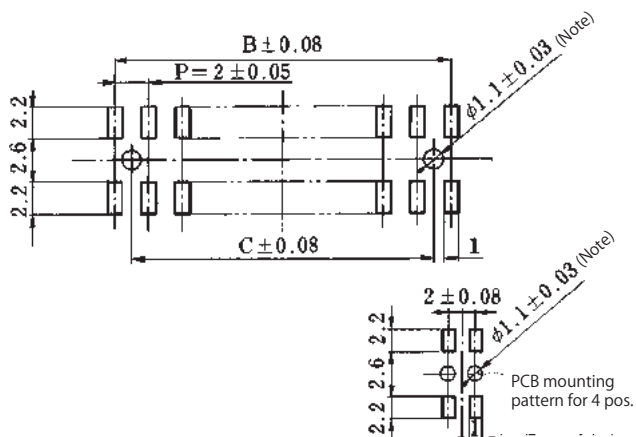
## ●SMT Type



Unit : mm

| Part No.         | HRS No.          | No. of Pos. | A  | B  | C  | RoHS | Purchase Unit   |
|------------------|------------------|-------------|----|----|----|------|-----------------|
| A3-4DA-2SV(71)   | CL0621-1100-0-71 | 4           | 4  | 2  | -  | ○    | 120pcs per tube |
| A3A-4DA-2SV(71)  | CL0621-1140-5-71 |             |    |    | 2  |      |                 |
| A3-6DA-2SV(71)   | CL0621-1101-3-71 | 6           | 6  | 4  | -  |      | 80pcs per tube  |
| A3A-6DA-2SV(71)  | CL0621-1141-8-71 |             |    |    | 2  |      |                 |
| A3-8DA-2SV(71)   | CL0621-1102-6-71 | 8           | 8  | 6  | -  |      | 60pcs per tube  |
| A3A-8DA-2SV(71)  | CL0621-1142-0-71 |             |    |    | 4  |      |                 |
| A3-10DA-2SV(71)  | CL0621-1103-9-71 | 10          | 10 | 8  | -  |      | 48pcs per tube  |
| A3A-10DA-2SV(71) | CL0621-1143-3-71 |             |    |    | 6  |      |                 |
| A3-12DA-2SV(71)  | CL0621-1104-1-71 | 12          | 12 | 10 | -  |      | 40pcs per tube  |
| A3A-12DA-2SV(71) | CL0621-1144-6-71 |             |    |    | 8  |      |                 |
| A3-14DA-2SV(71)  | CL0621-1105-4-71 | 14          | 14 | 12 | -  |      | 34pcs per tube  |
| A3A-14DA-2SV(71) | CL0621-1145-9-71 |             |    |    | 10 |      |                 |
| A3-16DA-2SV(71)  | CL0621-1106-7-71 | 16          | 16 | 14 | -  |      | 30pcs per tube  |
| A3A-16DA-2SV(71) | CL0621-1146-1-71 |             |    |    | 12 |      |                 |
| A3-20DA-2SV(71)  | CL0621-1108-2-71 | 20          | 20 | 18 | -  |      | 24pcs per tube  |
| A3A-20DA-2SV(71) | CL0621-1148-7-71 |             |    |    | 16 |      |                 |
| A3-24DA-2SV(71)  | CL0621-1110-4-71 | 24          | 24 | 22 | -  |      | 20pcs per tube  |
| A3A-24DA-2SV(71) | CL0621-1150-9-71 |             |    |    | 20 |      |                 |
| A3-28DA-2SV(71)  | CL0621-1112-0-71 | 28          | 28 | 26 | -  |      | 17pcs per tube  |
| A3A-28DA-2SV(71) | CL0621-1152-4-71 |             |    |    | 24 |      |                 |
| A3-32DA-2SV(71)  | CL0621-1114-5-71 | 32          | 32 | 30 | -  |      | 15pcs per tube  |
| A3A-32DA-2SV(71) | CL0621-1154-0-71 |             |    |    | 28 |      |                 |

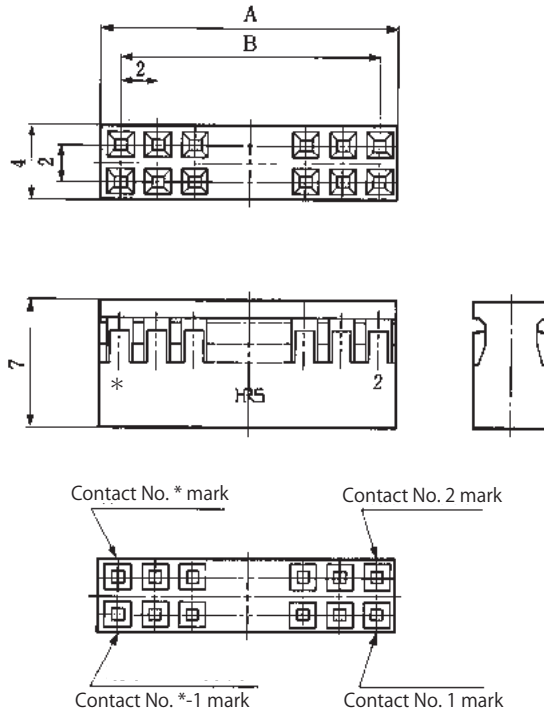
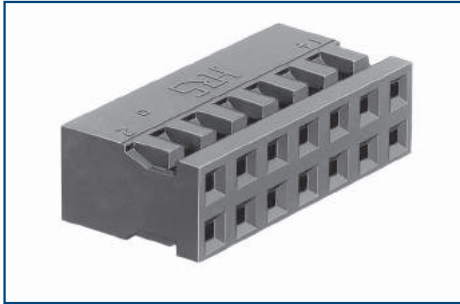
## Recommended PCB Dimensions



Note : The connector positioning boss is a structure that is lightly press-fitted into the board hole. When mounting on the board, press the connector lightly from above to make sure that the positioning boss is inserted securely into the board hole and that the connector leads are not floating off the board. For automatic board placement, recommended boss dia. is  $\phi 1.2 \pm_{-0}^{+0.1}$ .

## Crimp Socket

### ● A3B-#D-2C (Dual-Row)



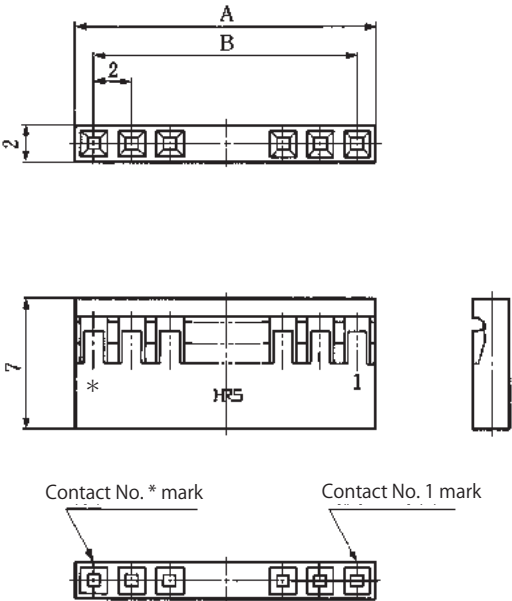
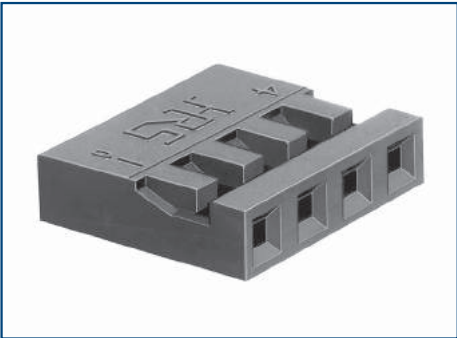
Note : \* indicates the number of contacts.

Unit : mm

| Part No.   | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit  |
|------------|------------------|-------------|----|----|------|----------------|
| A3B-8D-2C  | CL0621-0307-3-00 | 8           | 8  | 6  | ○    | 100pcs per bag |
| A3B-10D-2C | CL0621-0308-6-00 | 10          | 10 | 8  |      |                |
| A3B-12D-2C | CL0621-0309-9-00 | 12          | 12 | 10 |      |                |
| A3B-14D-2C | CL0621-0310-8-00 | 14          | 14 | 12 |      |                |
| A3B-18D-2C | CL0621-0311-0-00 | 18          | 18 | 16 |      |                |
| A3B-20D-2C | CL0621-0312-3-00 | 20          | 20 | 18 |      |                |
| A3B-24D-2C | CL0621-0313-6-00 | 24          | 24 | 22 |      |                |
| A3B-28D-2C | CL0621-0314-9-00 | 28          | 28 | 26 |      |                |
| A3B-44D-2C | CL0621-0330-5-00 | 44          | 44 | 42 |      |                |

Note : Use other No. of Pos. in combination.  
(Example : 50 No. of Pos. = 44 No. of Pos. + 6 No. of Pos.)

●A4B-#S-2C (Single-Row)

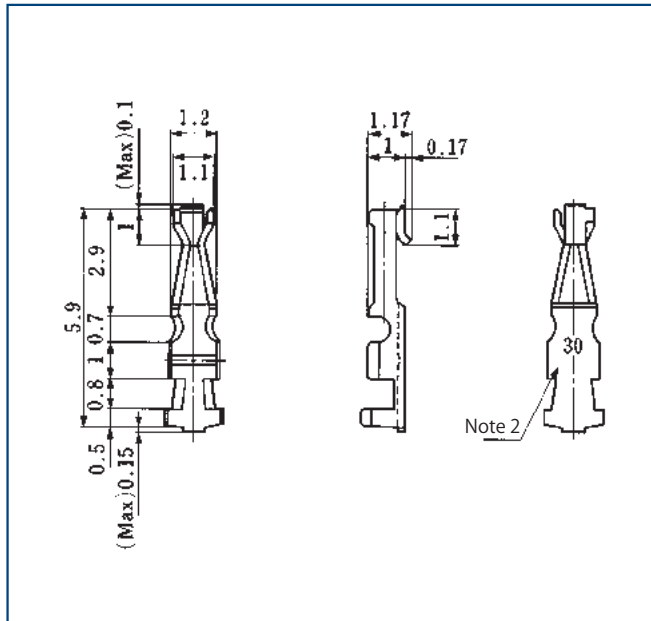


Note : \* indicates the number of contacts.

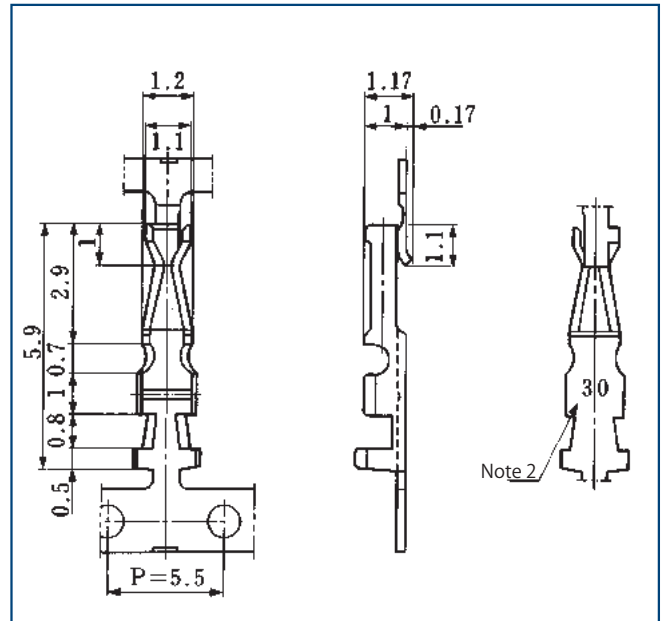
| Unit : mm  |                  |             |    |    |      |                |
|------------|------------------|-------------|----|----|------|----------------|
| Part No.   | HRS No.          | No. of Pos. | A  | B  | RoHS | Purchase Unit  |
| A4B-2S-2C  | CL0622-0301-3-00 | 2           | 4  | 2  | ○    | 100pcs per bag |
| A4B-3S-2C  | CL0622-0302-6-00 | 3           | 6  | 4  |      |                |
| A4B-4S-2C  | CL0622-0303-9-00 | 4           | 8  | 6  |      |                |
| A4B-5S-2C  | CL0622-0304-1-00 | 5           | 10 | 8  |      |                |
| A4B-6S-2C  | CL0622-0305-4-00 | 6           | 12 | 10 |      |                |
| A4B-8S-2C  | CL0622-0306-7-00 | 8           | 16 | 14 |      |                |
| A4B-10S-2C | CL0622-0307-0-00 | 10          | 20 | 18 |      |                |
| A4B-12S-2C | CL0622-0308-2-00 | 12          | 24 | 22 |      |                |
| A4B-15S-2C | CL0622-0311-7-00 | 15          | 30 | 28 |      |                |
| A4B-16S-2C | CL0622-0310-4-00 | 16          | 32 | 30 |      |                |
| A4B-18S-2C | CL0622-0309-5-00 | 18          | 36 | 34 |      |                |

## Crimp Contact

### SCC Contact



### SCFC Contact



| Part No.     | HRS No.          | RoHS          | Applicable Wire | Type          | Crimping Tool                               | Purchase Unit      |
|--------------|------------------|---------------|-----------------|---------------|---------------------------------------------|--------------------|
| A3B-2630SCFC | CL0621-0301-7-00 | ○<br>(Note 3) | 26 to 30 AWG    | Reel Contact  | Automatic crimper CM-105C + AP105-A3B-2630S | 10,000pcs per reel |
| A3B-2630SCC  | CL0621-0302-0-00 |               | 26 to 30 AWG    | Loose Contact | A3B-TA2630HC                                | 100pcs per bag     |

Note 1 : The plating specification is shown as follows:

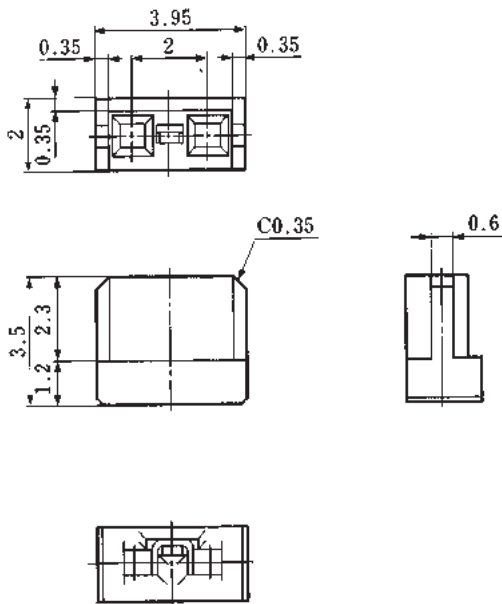
(Contact area) : Gold plating

(Others) : Nickel plating

Note 2 : "30" is stamped on A3B-2630SCFC(SCC).

Note 3 : Only crimp contacts are RoHS compliant.

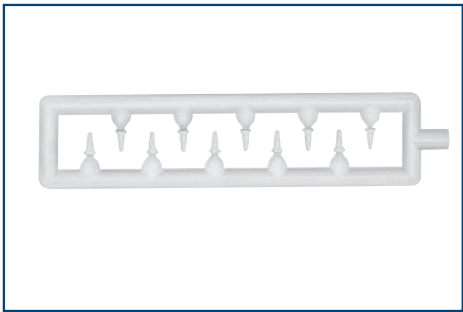
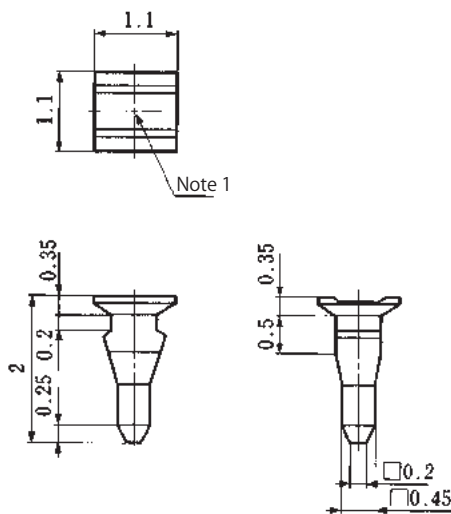
Short Pin



| HRS No.  | HRS No.          | Component | Material           | Color / Finish         | Remarks | RoHS | Purchase Unit    |
|----------|------------------|-----------|--------------------|------------------------|---------|------|------------------|
| A3-SP(A) | CL0621-0180-4-00 | Case      | PBT                | Black                  | UL94V-0 | ○    | 1,000pcs per bag |
|          |                  | Contact   | Phosphorous Bronze | Partially Gold Plating | -       |      |                  |

Polarizing Key

A3-GPIN(A)



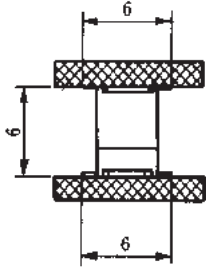
| HRS No.    | HRS No.          | Material            | RoHS | Purchase Unit  |
|------------|------------------|---------------------|------|----------------|
| A3-GPIN(A) | CL0621-0178-2-00 | Poly acetal (white) | ○    | 100pcs per bag |

Note 1 : This product is provided in a set of 10 pieces in conjunction with a runner.  
Note 2 : This product cannot be used for A3E series.

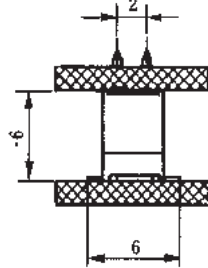
## Mated Dimensions

Note : When the connector is mounted on the board surface, the mounting height is a size designed in single connector. Solder paste used for installation will slightly change according to solder thickness.

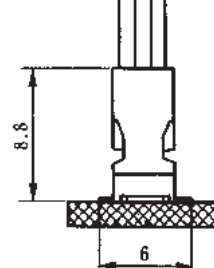
A3(A)-#DA-2SV



A3C-#DA-2DSA



A3B-#D-2C

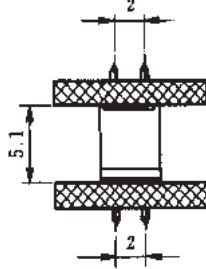


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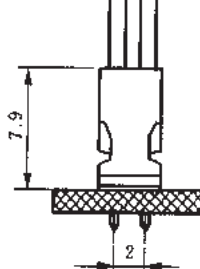
A3(A)-#PA-2SV

A3(A)-#PA-2SV

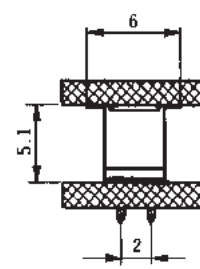
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A3B-#D-2C



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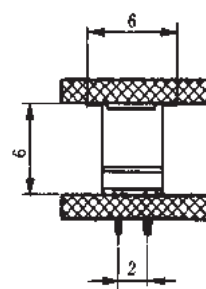


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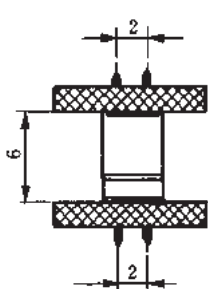
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A3C-#P-2DSA

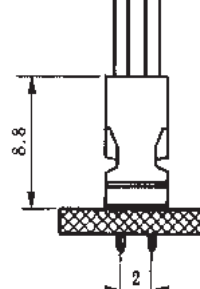
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A3C-#DA-2DSA



A3B-#D-2C

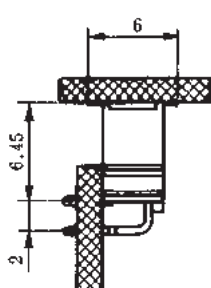


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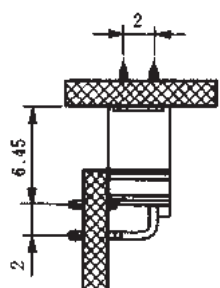
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A3B-#PA-2DSA

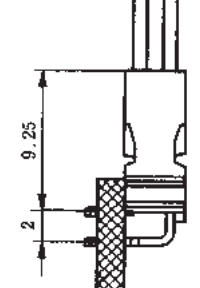
A3(A)-#DA-2SV



A3C-#DA-2DSA



A3B-#D-2C



A3B-#PA-2DS

A3B-#PA-2DS

A3B-#PA-2DS

## Applicable Crimping Tool

### Manual crimping tool

- A3B-TA2630HC



### Automatic crimping machine

- CM-105C

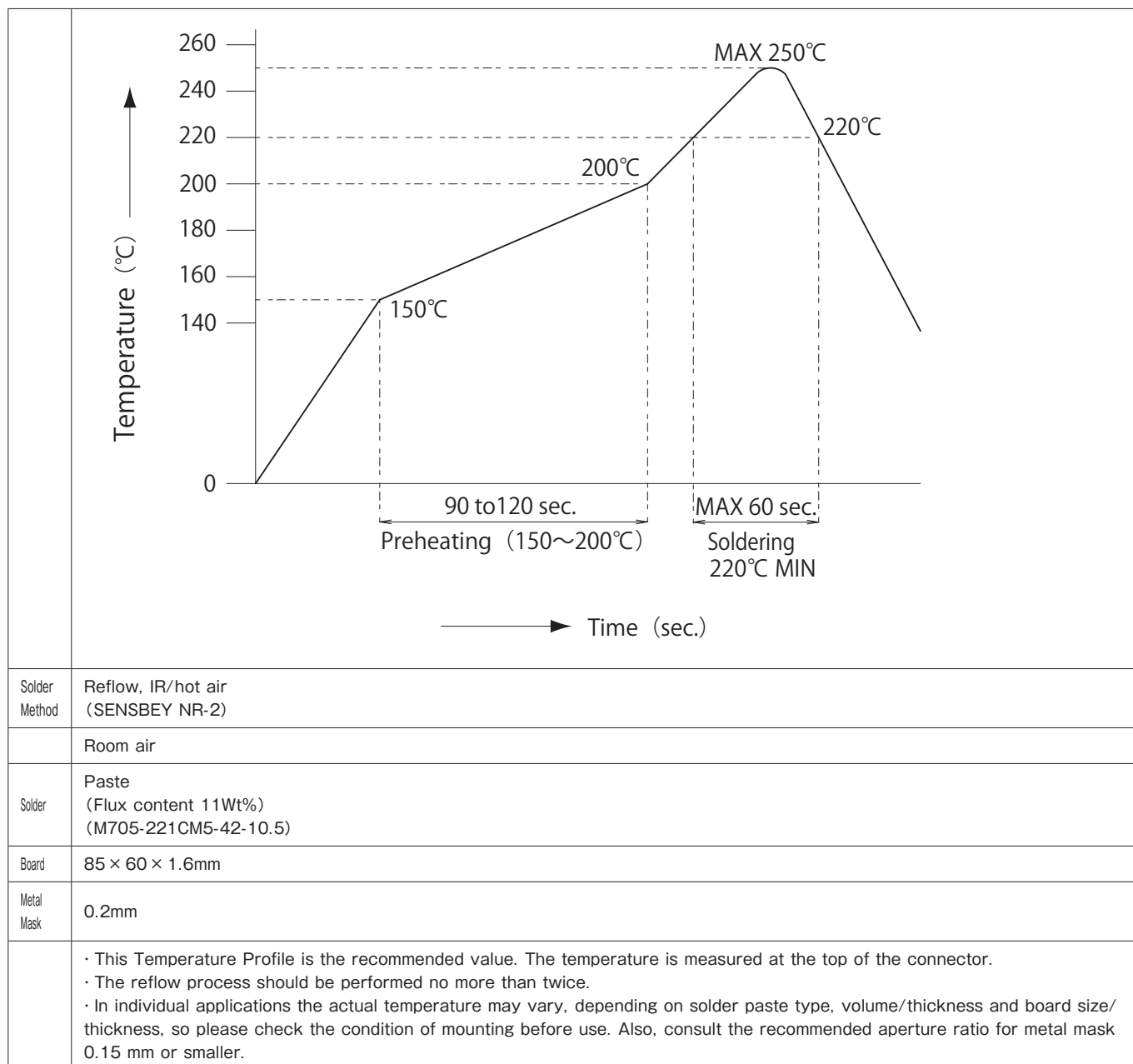
This machine is a new model in response to the demands of many users. It has been carefully designed to improve usability and expand the range of applications, including set-up adjustment and installation of various applicators. As an easy-to-use semi- Automatic Crimp Machine, it can be used for crimping and connecting various chain-shaped Contact.



| Specification   |                                                          |
|-----------------|----------------------------------------------------------|
| Power Supply    | 100V AC, single phase 200W                               |
| Gross Weight    | 75 kg                                                    |
| Machining Range | 2000 to 4000 contacts/hour                               |
| Remarks         | Crimping of various contacts by replacing the applicator |

| Item                       | Part No.        | HRS No.          | Applicable Contact | Applicable Cable |
|----------------------------|-----------------|------------------|--------------------|------------------|
| Manual Crimping Tool       | A3B-TA2630HC    | CL0550-0200-7-00 | A3B-2630SCC        | 26 to 30 AWG     |
| Automatic Crimping Machine | CM-105C         | CL0901-0001-0-00 | -                  | -                |
| Applicator                 | AP105-A3B-2630S | CL0901-4016-2-00 | A3B-2630SCFC       | 26 to 30 AWG     |

## Precautions



## While taking in consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

**HIROSE**
**HRS**
**HIROSE ELECTRIC CO.,LTD.**

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