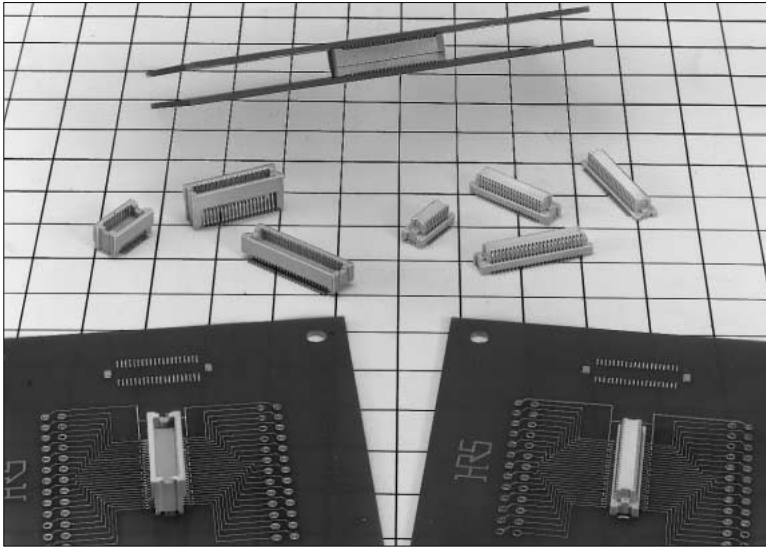


0.65mm Pitch SMT Board to Board Connector

DF15 Series



Corresponding to automatic mounting

The vacuum area is secured the automatic mounting machine for vacuum.

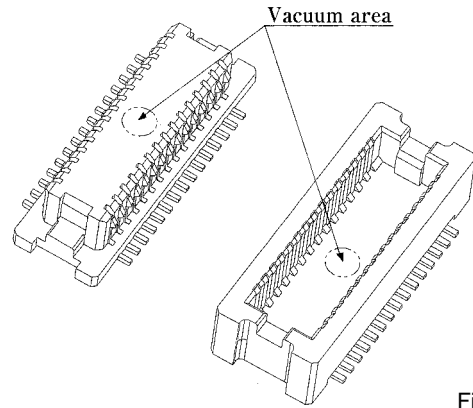


Figure 1

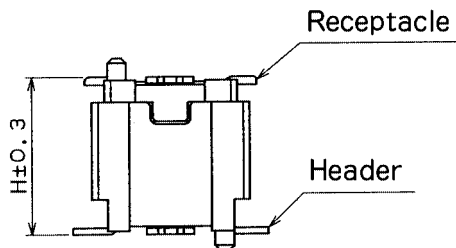
■Features

1. Compatibility of Miniaturization with Service Efficiency

This series considers the service efficiency to set the pitch to 0.65mm, corresponding to the 0.5mm pitch DF12 series. This connector widely covers the definition of the mounting space or the board to board size together with the DF12 series.

2. Broad Variations in Board to Board Size

The board to board size is specified at 1mm step between 4mm and 8mm.



| Header/Receptacle | DF15#(0.8)-*DS-0.65V Combinnation with H size | DF15#(1.8)-*DS-0.65V Combinnation with H size |
|----------------------|--|--|
| DF15#(3.2)-*DP-0.65V | 4 | 5 |
| DF15#(4.2)-*DP-0.65V | 5 | 6 |
| DF15#(6.2)-*DP-0.65V | 7 | 8 |

Note1: The stacking height is determined by adding the header and receptacle to the figures followed by the product name DF15#.

Note2: The stacking height (H size) doesn't include the soldering paste thickness.

3. Correspond to Automatic Mounting

The connector has the vacuum area, which enables the automatic mounting by the embossed tape packaging.

4. Metal Fitting Available

The product including the metal fitting to prevent solder peeling is prepared, considering the mounting on FPC.

■Applications

Mobile phone, LCD(Liquid Crystal Display), MO(Optical Disk), Note PC

■Product Specifications

| | | | |
|--------|-------------------------|--|--|
| Rating | Current rating : 0.3A | Operating Temperature Range : -35 to +85°C (Note 1.) | Storage Temperature Range : -10 to +60°C (Note 2.) |
| | Voltage rating : 50V AC | Operating Humidity Range : 40 to 80% | Storage Humidity Range : 40 to 70% (Note 2.) |

| Item | Specification | Condition |
|---------------------------------|---|--|
| 1. Insulation Resistance | 500M ohms min. | 100V DC |
| 2. Withstanding Voltage | No flashover or insulation breakdown. | 150V AC/1 minute |
| 3. Contact Resistance | 50m ohms max | 100mA |
| 4. Vibration | No electrical discontinuity of 1μs or more | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions. |
| 5. Humidity (Steady state) | Contact resistance: 50m ohms max. Insulation resistance: 250M ohms min. | 96 hours at temperature of 40°C and humidity of 90% to 95% |
| 6. Temperature Cycle | Contact resistance : 50m ohms max. Insulation resistance: 500M ohms min. | (-55°C: 30 minutes 5 to 35°C: 10 minutes 85°C: 30 minutes 5 to 35°C: 10 minutes) 5 cycles |
| 7. Operating Life | Contact resistance: 50m ohms max. | 50 cycles |
| 8. Resistance to Soldering heat | No deformation of components affecting performance. | Reflow: At the recommended temperature profile |
| | | Manual soldering: 300°C for 3 seconds |

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

■Material

| Product | Part | Material | Finish | Remarks |
|------------|---------------|-----------------|----------------|---------|
| Receptacle | Insulator | Polyamide | Beige | UL94V-0 |
| | Contact | Phosphor copper | Gold plating | ———— |
| | Metal fitting | Brass | Solder plating | ———— |
| Header | Insulator | Polyamide | Beige | UL94V-0 |
| | Contact | Phosphor copper | Gold plating | ———— |
| | Metal fitting | Brass | Solder plating | ———— |

Note: The gold plated product of pin header consists of a contact area of gold plating and lead of solder plating.

■Ordering Information

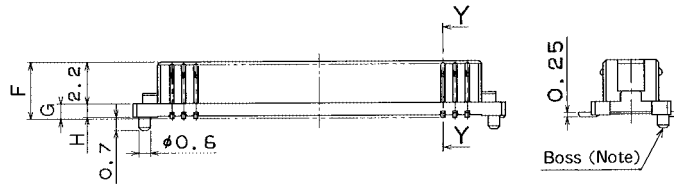
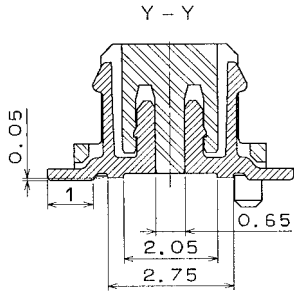
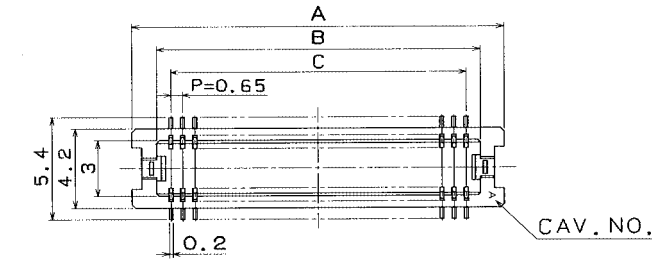
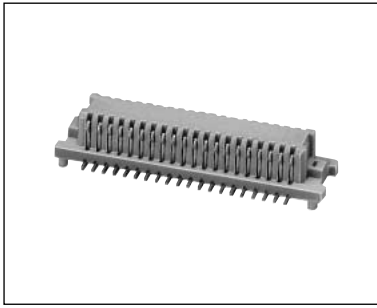
●Receptacle/Header

DF15 **#** **(**)** - ***** **DS** - **0.65** **V** **(**)**

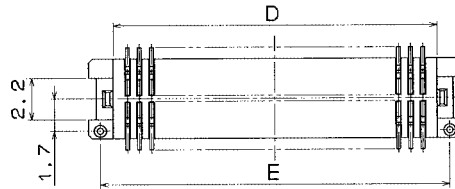
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

| ① Series Name : DF15 | ④ Number of Contacts 20, 30, 40, 50 | | | | | | | | | | | | | | | |
|--|--|---------|------|------|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| ② Type Symbol | ⑤ Connector Type DS : Double-row receptacle DP : Double-row header | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Symbol</th> <th>Fitting</th> <th>Boss</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>○</td> <td>○</td> </tr> <tr> <td>A</td> <td>×</td> <td>○</td> </tr> <tr> <td>B</td> <td>○</td> <td>×</td> </tr> <tr> <td>C</td> <td>×</td> <td>×</td> </tr> </tbody> </table> | Symbol | Fitting | Boss | None | ○ | ○ | A | × | ○ | B | ○ | × | C | × | × | ⑥ Contact Pitch : 0.65mm |
| Symbol | Fitting | Boss | | | | | | | | | | | | | | |
| None | ○ | ○ | | | | | | | | | | | | | | |
| A | × | ○ | | | | | | | | | | | | | | |
| B | ○ | × | | | | | | | | | | | | | | |
| C | × | × | | | | | | | | | | | | | | |
| ③ Product height Receptacle : 0.8, 1.8 Header : 3.2, 4.2, 6.2 | ⑦ Contact type V : Straight SMT type | | | | | | | | | | | | | | | |
| | ⑧ (50) : Tube packaging (51) : Embossed tape packaging | | | | | | | | | | | | | | | |

■Receptacle Without metal fitting



(Note): "without boss" indicates the form with no boss.



[Specific No.] -** , (**)
 (50) :Gold plating, tube packaging
 (51) :Gold plating, embossed tape packaging

●Product Height: 0.8mm product

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|---|-----|-----|--------------------------------|---------------------------------------|
| DF15A(0.8)-20DS-0.65V(**) | 677-0012-4-** | 20 | 9.85 | 7.35 | 5.85 | 7.35 | 8.65 | 3 | 0.8 | 0.7 | 48 | Without metal fitting With boss |
| DF15A(0.8)-30DS-0.65V(**) | 677-0013-7-** | 30 | 13.1 | 10.6 | 9.1 | 10.6 | 11.9 | | | | 36 | |
| DF15A(0.8)-40DS-0.65V(**) | 677-0014-0-** | 40 | 16.35 | 13.85 | 12.35 | 13.85 | 15.15 | | | | 29 | |
| DF15A(0.8)-50DS-0.65V(**) | 677-0015-2-** | 50 | 19.6 | 17.1 | 15.6 | 17.1 | 18.4 | | | | 24 | |
| DF15C(0.8)-20DS-0.65V(**) | 677-0032-1-** | 20 | 9.85 | 7.35 | 5.85 | 7.35 | - | 3 | 0.8 | 0.7 | 48 | Without metal fitting Without boss |
| DF15C(0.8)-30DS-0.65V(**) | 677-0033-4-** | 30 | 13.1 | 10.6 | 9.1 | 10.6 | - | | | | 36 | |
| DF15C(0.8)-40DS-0.65V(**) | 677-0034-7-** | 40 | 16.35 | 13.85 | 12.35 | 13.85 | - | | | | 29 | |
| DF15C(0.8)-50DS-0.65V(**) | 677-0035-0-** | 50 | 19.6 | 17.1 | 15.6 | 17.1 | - | | | | 24 | |

●Product Height: 1.8mm Product

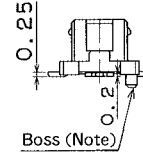
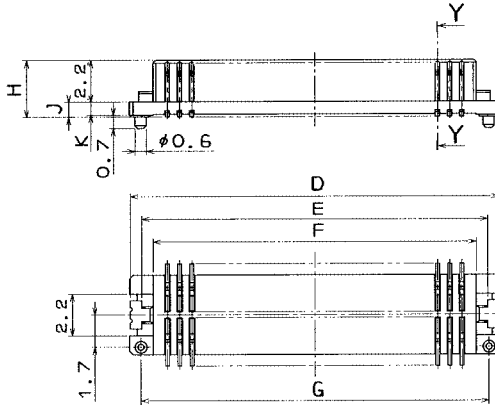
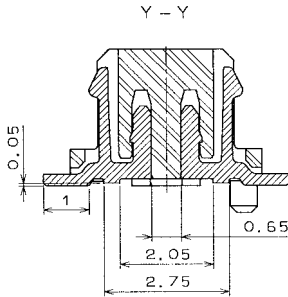
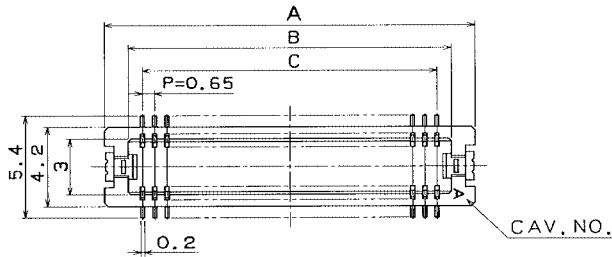
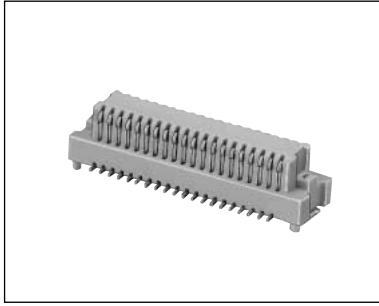
Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|---|-----|-----|--------------------------------|---------------------------------------|
| DF15A(1.8)-20DS-0.65V(**) | 677-0052-9-** | 20 | 9.85 | 7.35 | 5.85 | 7.35 | 8.65 | 4 | 1.8 | 1.7 | 48 | Without metal fitting With boss |
| DF15A(1.8)-30DS-0.65V(**) | 677-0053-1-** | 30 | 13.1 | 10.6 | 9.1 | 10.6 | 11.9 | | | | 36 | |
| DF15A(1.8)-40DS-0.65V(**) | 677-0054-4-** | 40 | 16.35 | 13.85 | 12.35 | 13.85 | 15.15 | | | | 29 | |
| DF15A(1.8)-50DS-0.65V(**) | 677-0055-7-** | 50 | 19.6 | 17.1 | 15.6 | 17.1 | 18.4 | | | | 24 | |
| DF15C(1.8)-20DS-0.65V(**) | 677-0072-6-** | 20 | 9.85 | 7.35 | 5.85 | 7.35 | - | 4 | 1.8 | 1.7 | 48 | Without metal fitting Without boss |
| DF15C(1.8)-30DS-0.65V(**) | 677-0073-9-** | 30 | 13.1 | 10.6 | 9.1 | 10.6 | - | | | | 36 | |
| DF15C(1.8)-40DS-0.65V(**) | 677-0074-1-** | 40 | 16.35 | 13.85 | 12.35 | 13.85 | - | | | | 29 | |
| DF15C(1.8)-50DS-0.65V(**) | 677-0075-4-** | 50 | 19.6 | 17.1 | 15.6 | 17.1 | - | | | | 24 | |

Note1: Please order the tube packaging product, multiplying the tube packaging number by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

■Receptacle With metal fitting



(Note): "without boss" indicates the form with no boss.

[Specific No.] -** , (**)

(50) :Gold plating tube packaging

(51) :Gold plating embossed tape packaging

●Product Height: 0.8mm Product

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | J | K | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|-------|---|-----|-----|--------------------------------|------------------------------------|
| DF15 (0.8)-20DS-0.65V(**) | 677-0002-0-** | 20 | 9.85 | 7.35 | 5.85 | 9.65 | 8.45 | 7.35 | 8.65 | 3 | 0.8 | 0.7 | 48 | With metal fitting With boss |
| DF15 (0.8)-30DS-0.65V(**) | 677-0003-3-** | 30 | 13.10 | 10.6 | 9.1 | 12.9 | 11.7 | 10.6 | 11.9 | | | | 36 | |
| DF15 (0.8)-40DS-0.65V(**) | 677-0004-6-** | 40 | 16.35 | 13.85 | 12.35 | 16.15 | 14.95 | 13.85 | 15.15 | | | | 29 | |
| DF15 (0.8)-50DS-0.65V(**) | 677-0005-9-** | 50 | 19.60 | 17.1 | 15.6 | 19.4 | 18.2 | 17.1 | 18.4 | | | | 24 | |
| DF15B(0.8)-20DS-0.65V(**) | 677-0022-8-** | 20 | 9.85 | 7.35 | 5.85 | 9.65 | 8.45 | 7.35 | - | 3 | 0.8 | 0.7 | 48 | With metal fitting Without boss |
| DF15B(0.8)-30DS-0.65V(**) | 677-0023-0-** | 30 | 13.10 | 10.6 | 9.1 | 12.9 | 11.7 | 10.6 | - | | | | 36 | |
| DF15B(0.8)-40DS-0.65V(**) | 677-0024-3-** | 40 | 16.35 | 13.85 | 12.35 | 16.15 | 14.95 | 13.85 | - | | | | 29 | |
| DF15B(0.8)-50DS-0.65V(**) | 677-0025-6-** | 50 | 19.60 | 17.1 | 15.6 | 19.4 | 18.2 | 17.1 | - | | | | 24 | |

●Product Height: 1.8mm Product

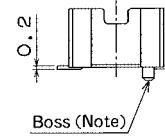
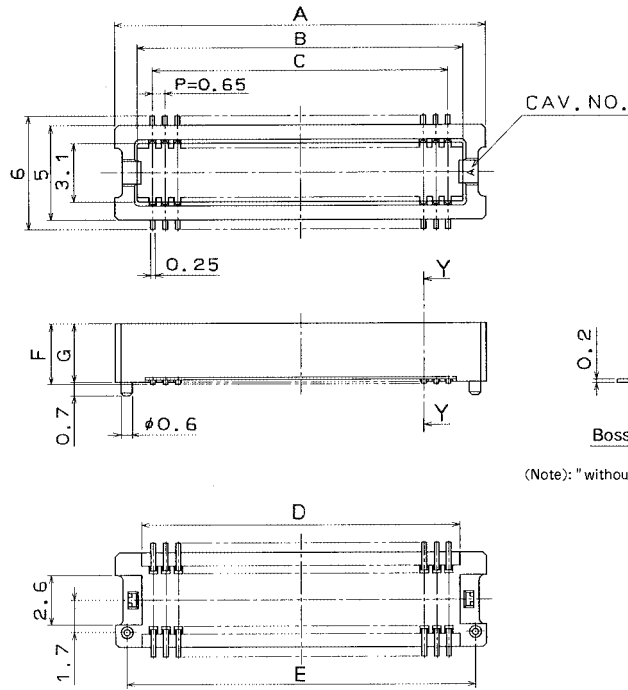
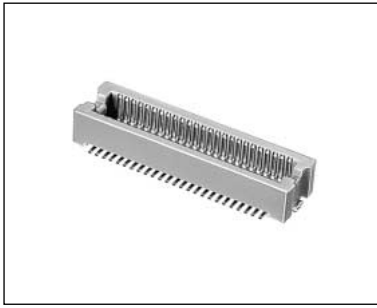
Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | J | K | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|-------|---|-----|-----|--------------------------------|------------------------------------|
| DF15 (1.8)-20DS-0.65V(**) | 677-0042-5-** | 20 | 9.85 | 7.35 | 5.85 | 9.65 | 8.45 | 7.35 | 8.65 | 4 | 1.8 | 1.7 | 48 | With metal fitting With boss |
| DF15 (1.8)-30DS-0.65V(**) | 677-0043-8-** | 30 | 13.1 | 10.6 | 9.1 | 12.9 | 11.7 | 10.6 | 11.9 | | | | 36 | |
| DF15 (1.8)-40DS-0.65V(**) | 677-0044-0-** | 40 | 16.35 | 13.85 | 12.35 | 16.15 | 14.95 | 13.85 | 15.15 | | | | 29 | |
| DF15 (1.8)-50DS-0.65V(**) | 677-0045-3-** | 50 | 19.6 | 17.1 | 15.6 | 19.4 | 18.2 | 17.1 | 18.4 | | | | 24 | |
| DF15B(1.8)-20DS-0.65V(**) | 677-0062-2-** | 20 | 9.85 | 7.35 | 5.85 | 9.65 | 8.45 | 7.35 | - | 4 | 1.8 | 1.7 | 48 | With metal fitting Without boss |
| DF15B(1.8)-30DS-0.65V(**) | 677-0063-5-** | 30 | 13.1 | 10.6 | 9.1 | 12.9 | 11.7 | 10.6 | - | | | | 36 | |
| DF15B(1.8)-40DS-0.65V(**) | 677-0064-8-** | 40 | 16.35 | 13.85 | 12.35 | 16.15 | 14.95 | 13.85 | - | | | | 29 | |
| DF15B(1.8)-50DS-0.65V(**) | 677-0065-0-** | 50 | 19.6 | 17.1 | 15.6 | 19.4 | 18.2 | 17.1 | - | | | | 24 | |

Note1: Please order the tube packaging product, by multiplying the packaging quantity by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

Header Without metal fitting



(Note): "without boss" indicates the form with no boss.

[Specific No.] -** , (**)
 (50) :Gold plating tube packaging
 (51) :Gold plating embossed tape packaging

Product Height: 3.2mm Product

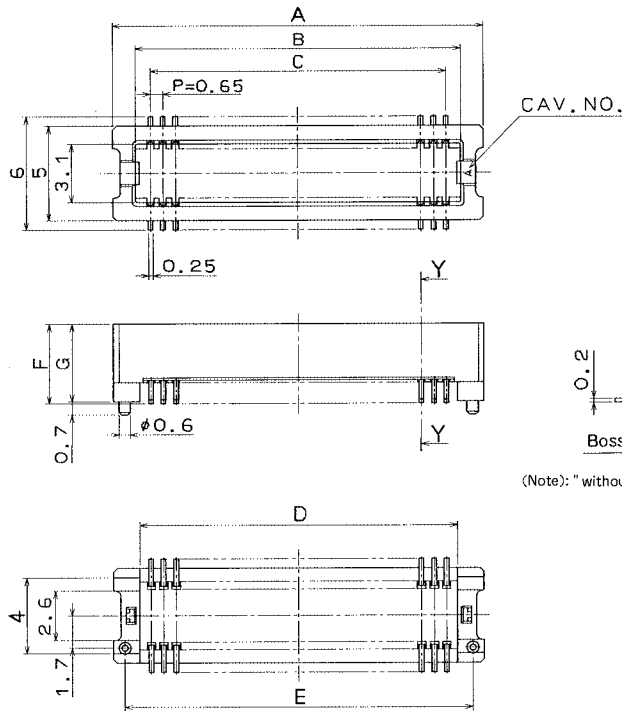
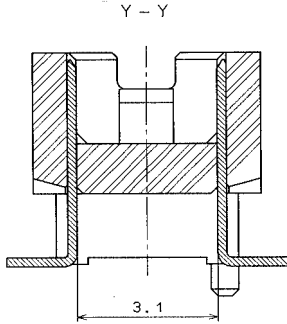
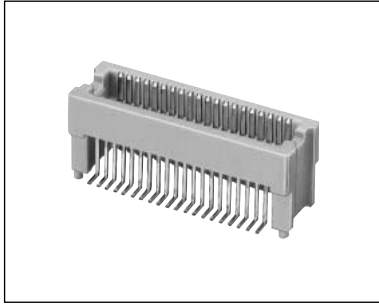
Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-----|-----|--------------------------------|---------------------------------------|
| DF15A(3.2)-20DP-0.65V(**) | 677-0092-3-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | 8.65 | 3.2 | 3.1 | 48 | Without metal fitting With boss |
| DF15A(3.2)-30DP-0.65V(**) | 677-0093-6-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | 11.9 | | | 36 | |
| DF15A(3.2)-40DP-0.65V(**) | 677-0094-9-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | 15.15 | | | 29 | |
| DF15A(3.2)-50DP-0.65V(**) | 677-0095-1-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | 18.4 | | | 24 | |
| DF15C(3.2)-20DP-0.65V(**) | 677-0112-9-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | - | 3.2 | 3.1 | 48 | Without metal fitting Without boss |
| DF15C(3.2)-30DP-0.65V(**) | 677-0113-1-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | - | | | 36 | |
| DF15C(3.2)-40DP-0.65V(**) | 677-0114-4-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | - | | | 29 | |
| DF15C(3.2)-50DP-0.65V(**) | 677-0115-7-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | - | | | 24 | |

Note1: Please order the tube packaging product, , by multiplying the packaging quantity by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

Header Without metal fitting



(Note): "without boss" indicates the form with no boss.

[Specific No.] -** , (**)

(50) :Gold plating tube packaging

(51) :Gold plating embossed tape packaging

Product Height: 4.2mm Product

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-----|-----|--------------------------------|---------------------------------------|
| DF15A(4.2)-20DP-0.65V(**) | 677-0132-6-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | 8.65 | 4.2 | 4.1 | 48 | Without metal fitting With boss |
| DF15A(4.2)-30DP-0.65V(**) | 677-0133-9-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | 11.9 | | | 36 | |
| DF15A(4.2)-40DP-0.65V(**) | 677-0134-1-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | 15.15 | | | 29 | |
| DF15A(4.2)-50DP-0.65V(**) | 677-0135-4-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | 18.4 | | | 24 | |
| DF15C(4.2)-20DP-0.65V(**) | 677-0152-3-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | - | 4.2 | 4.1 | 48 | Without metal fitting Without boss |
| DF15C(4.2)-30DP-0.65V(**) | 677-0153-6-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | - | | | 36 | |
| DF15C(4.2)-40DP-0.65V(**) | 677-0154-9-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | - | | | 29 | |
| DF15C(4.2)-50DP-0.65V(**) | 677-0155-1-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | - | | | 24 | |

Product Height: 6.2mm Product

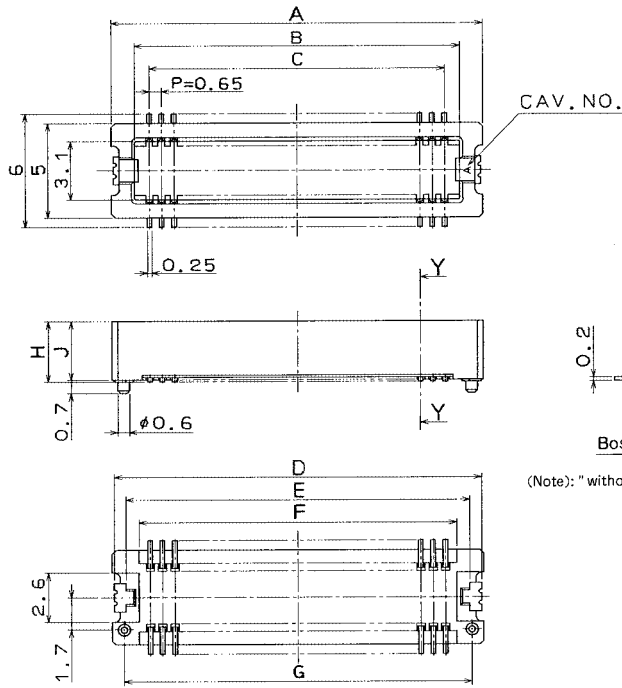
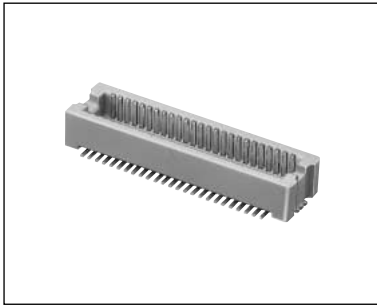
Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | Tube Package Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-----|-----|------------------------------|---------------------------------------|
| DF15A(6.2)-20DP-0.65V(**) | 677-0172-0-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | 8.65 | 6.2 | 6.1 | 48 | Without metal fitting With boss |
| DF15A(6.2)-30DP-0.65V(**) | 677-0173-3-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | 11.9 | | | 36 | |
| DF15A(6.2)-40DP-0.65V(**) | 677-0174-6-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | 15.15 | | | 29 | |
| DF15A(6.2)-50DP-0.65V(**) | 677-0175-9-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | 18.4 | | | 24 | |
| DF15C(6.2)-20DP-0.65V(**) | 677-0192-8-** | 20 | 9.85 | 7.45 | 5.85 | 7.05 | - | 6.2 | 6.1 | 48 | Without metal fitting Without boss |
| DF15C(6.2)-30DP-0.65V(**) | 677-0193-0-** | 30 | 13.1 | 10.7 | 9.1 | 10.3 | - | | | 36 | |
| DF15C(6.2)-40DP-0.65V(**) | 677-0194-3-** | 40 | 16.35 | 13.95 | 12.35 | 13.55 | - | | | 29 | |
| DF15C(6.2)-50DP-0.65V(**) | 677-0195-6-** | 50 | 19.6 | 17.2 | 15.6 | 16.8 | - | | | 24 | |

Note1: Please order the tube packaging product, by multiplying the packaging quantity by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

Header With metal fitting



(Note): "without boss" indicates the form with no boss.

[Specific No.] -** , (**)
 (50) :Gold plating tube packaging
 (51) :Gold plating embossed tape packaging

●Product Height: 3.2mm Product

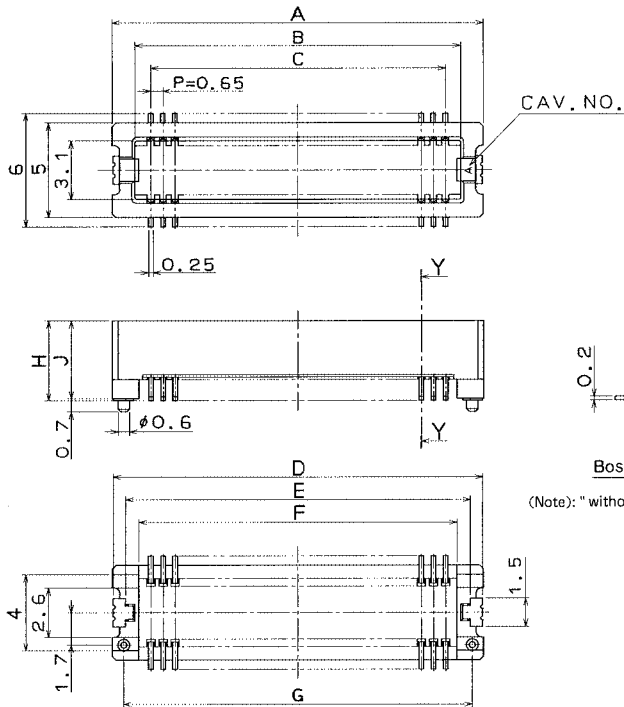
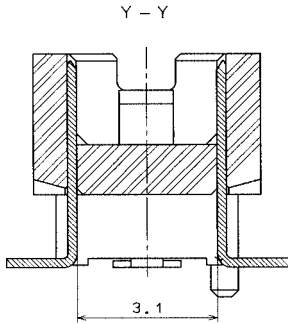
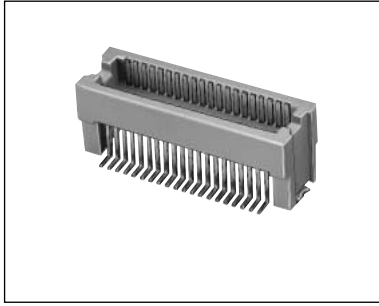
Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | J | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-------------------------------|------------------------------------|
| DF15 (3.2)-20DP-0.65V(**) | 677-0082-0-*** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | 8.65 | 3.2 | 3.1 | 48 | With metal fitting With boss |
| DF15 (3.2)-30DP-0.65V(**) | 677-0083-2-*** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | 11.9 | | | 36 | |
| DF15 (3.2)-40DP-0.65V(**) | 677-0084-5-*** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | 15.15 | | | 29 | |
| DF15 (3.2)-50DP-0.65V(**) | 677-0085-8-*** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | 18.4 | | | 24 | |
| DF15B(3.2)-20DP-0.65V(**) | 677-0102-5-*** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | - | 3.2 | 3.1 | 48 | With metal fitting Without boss |
| DF15B(3.2)-30DP-0.65V(**) | 677-0103-8-*** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | - | | | 36 | |
| DF15B(3.2)-40DP-0.65V(**) | 677-0104-0-*** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | - | | | 29 | |
| DF15B(3.2)-50DP-0.65V(**) | 677-0105-3-*** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | - | | | 24 | |

Note1: Please order the tube packaging product, by multiplying the packaging quantity by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

Header With metal fitting



[Specific No.] -** (* *)
 (50) :Gold plating tube packaging
 (51) :Gold plating embossed tape packaging

Product Height: 4.2mm Product

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | J | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-----|-----|--------------------------------|------------------------------------|
| DF15 (4.2)-20DP-0.65V(**) | 677-0122-2-** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | 8.65 | 4.2 | 4.1 | 48 | With metal fitting With boss |
| DF15 (4.2)-30DP-0.65V(**) | 677-0123-5-** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | 11.9 | | | 36 | |
| DF15 (4.2)-40DP-0.65V(**) | 677-0124-8-** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | 15.15 | | | 29 | |
| DF15 (4.2)-50DP-0.65V(**) | 677-0125-0-** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | 18.4 | | | 24 | |
| DF15B(4.2)-20DP-0.65V(**) | 677-0142-0-** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | - | 4.2 | 4.1 | 48 | With metal fitting Without boss |
| DF15B(4.2)-30DP-0.65V(**) | 677-0143-2-** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | - | | | 36 | |
| DF15B(4.2)-40DP-0.65V(**) | 677-0144-5-** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | - | | | 29 | |
| DF15B(4.2)-50DP-0.65V(**) | 677-0145-8-** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | - | | | 24 | |

Product Height: 6.2mm Product

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G | H | J | Tube Packaging Quantity(pcs.) | Remarks |
|---------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-----|-----|--------------------------------|------------------------------------|
| DF15 (6.2)-20DP-0.65V(**) | 677-0162-7-** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | 8.65 | 6.2 | 6.1 | 48 | With metal fitting With boss |
| DF15 (6.2)-30DP-0.65V(**) | 677-0163-0-** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | 11.9 | | | 36 | |
| DF15 (6.2)-40DP-0.65V(**) | 677-0164-2-** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | 15.15 | | | 29 | |
| DF15 (6.2)-50DP-0.65V(**) | 677-0165-5-** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | 18.4 | | | 24 | |
| DF15B(6.2)-20DP-0.65V(**) | 677-0182-4-** | 20 | 9.85 | 7.45 | 5.85 | 9.65 | 8.45 | 7.05 | - | 6.2 | 6.1 | 48 | With metal fitting Without boss |
| DF15B(6.2)-30DP-0.65V(**) | 677-0183-7-** | 30 | 13.1 | 10.7 | 9.1 | 12.9 | 11.7 | 10.3 | - | | | 36 | |
| DF15B(6.2)-40DP-0.65V(**) | 677-0184-0-** | 40 | 16.35 | 13.95 | 12.35 | 16.15 | 14.95 | 13.55 | - | | | 29 | |
| DF15B(6.2)-50DP-0.65V(**) | 677-0185-2-** | 50 | 19.6 | 17.2 | 15.6 | 19.4 | 18.2 | 16.8 | - | | | 24 | |

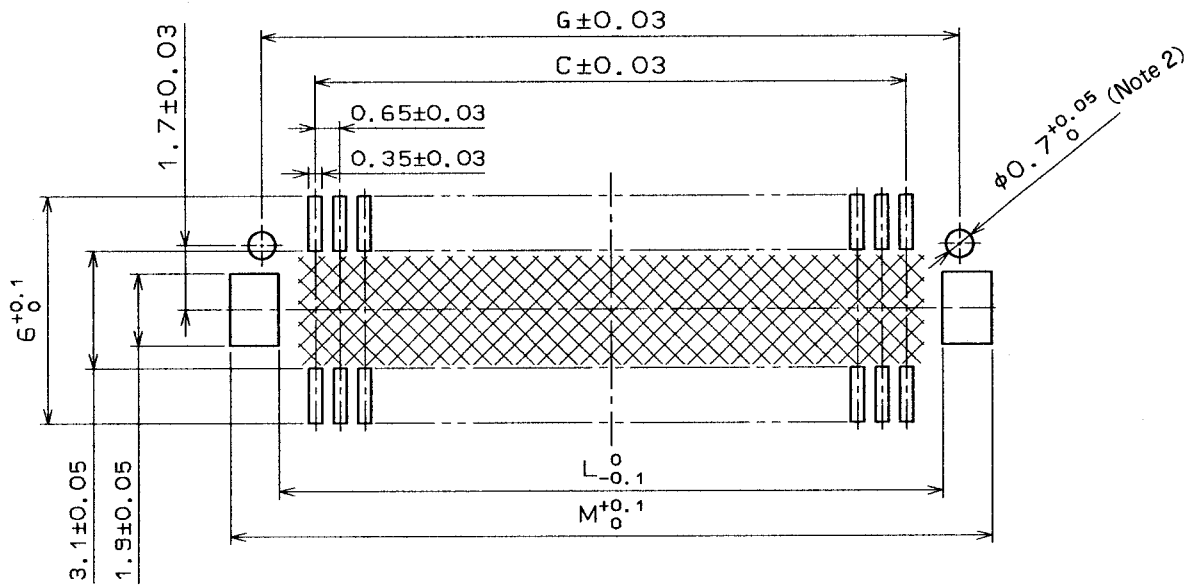
Note1: Please order the tube packaging product, by multiplying the packaging quantity by an integer.

Note2: Please order the embossed tape packaging product per reel. (1000 pcs./reel)

◆ Recommended PCB mounting pattern

(Unit: mm)

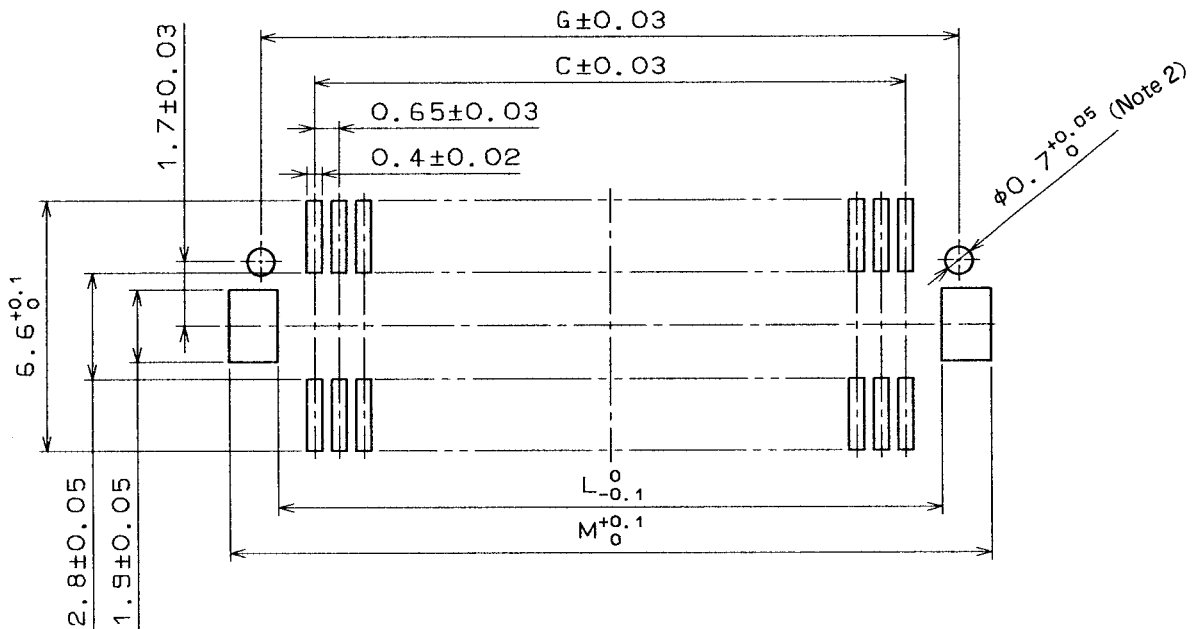
● Receptacle



Note1: If the pattern is included in the shaded area, and not treated with resist, it could touch the connector contact.

● Header

(Unit: mm)

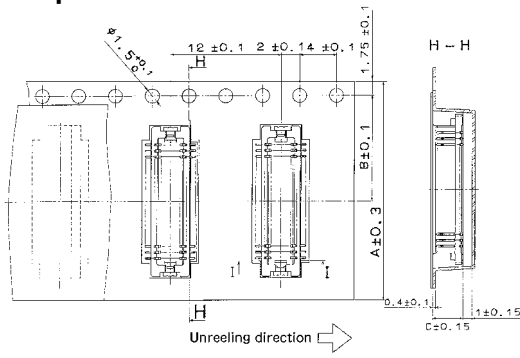


Unit: mm

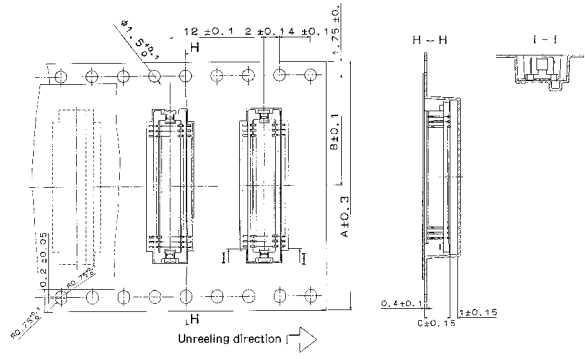
| Number of Contacts | C | G | L | M |
|--------------------|-------|-------|-------|-------|
| 20 | 5.85 | 8.65 | 7.85 | 10.25 |
| 30 | 9.1 | 11.9 | 11.1 | 13.5 |
| 40 | 12.35 | 15.15 | 14.35 | 16.75 |
| 50 | 15.6 | 18.4 | 17.6 | 20 |

◆ Embossed Carrier Tape Dimensions

● Receptacle

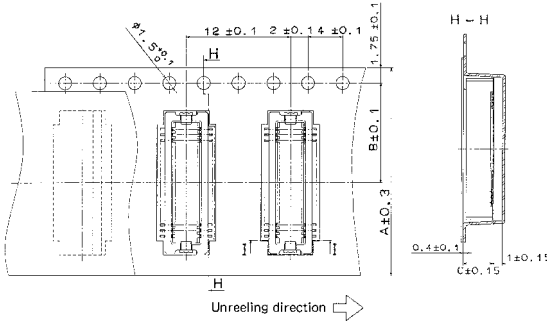


(20, 30, 40 contacts)

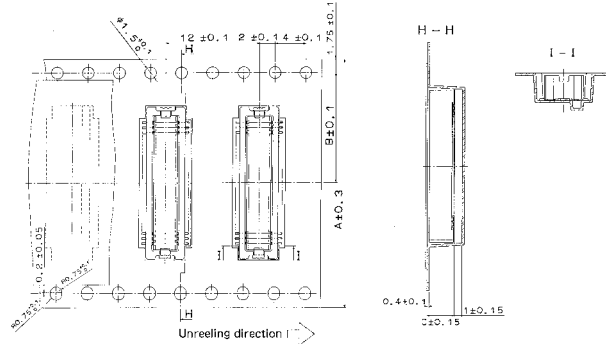


(50 contacts)

● Header

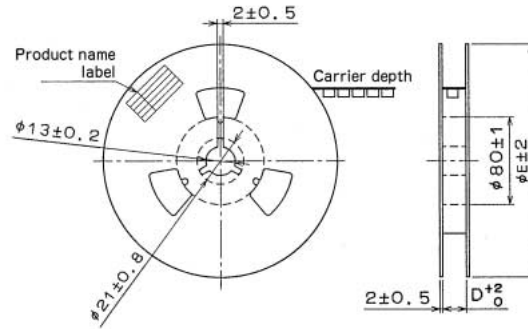


(20, 30, 40 contacts)



(50 contacts)

● Reel Dimensions

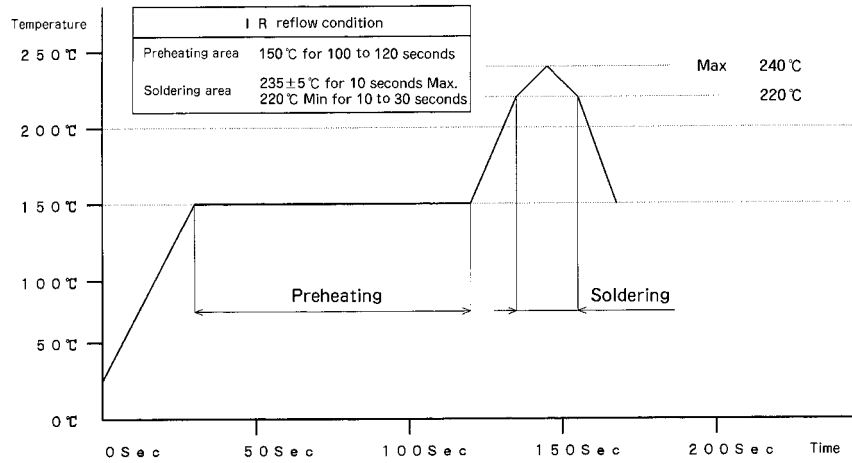


Unit:mm

| Connector | A | B | C | D | E | Connector | A | B | C | D | E |
|-----------------------|----|------|-----|------|-----|-----------------------|----|------|-----|------|-----|
| DF15#(0.8)-20DS-0.65V | 16 | 7.5 | 3.3 | 16.4 | 330 | DF15#(3.2)-20DP-0.65V | 16 | 7.5 | 3.5 | 16.4 | 330 |
| DF15#(0.8)-30DS-0.65V | 24 | 11.5 | 3.3 | 24.4 | | DF15#(3.2)-30DP-0.65V | 24 | 11.5 | 3.5 | 24.4 | |
| DF15#(0.8)-40DS-0.65V | 24 | 11.5 | 3.3 | 24.4 | | DF15#(3.2)-40DP-0.65V | 24 | 11.5 | 3.5 | 24.4 | |
| DF15#(0.8)-50DS-0.65V | 32 | 14.2 | 3.3 | 32.4 | | DF15#(3.2)-50DP-0.65V | 32 | 14.5 | 3.5 | 32.4 | |
| DF15#(1.8)-20DS-0.65V | 16 | 7.5 | 4.3 | 16.4 | | DF15#(4.2)-20DP-0.65V | 16 | 7.5 | 4.5 | 16.4 | |
| DF15#(1.8)-30DS-0.65V | 24 | 11.5 | 4.3 | 24.4 | | DF15#(4.2)-30DP-0.65V | 24 | 11.5 | 4.5 | 24.4 | |
| DF15#(1.8)-40DS-0.65V | 24 | 11.5 | 4.3 | 24.4 | | DF15#(4.2)-40DP-0.65V | 24 | 11.5 | 4.5 | 24.4 | |
| DF15#(1.8)-50DS-0.65V | 32 | 14.2 | 4.3 | 32.4 | | DF15#(4.2)-50DP-0.65V | 32 | 14.5 | 4.5 | 32.4 | |
| | | | | | | DF15#(6.2)-20DP-0.65V | 16 | 7.5 | 6.5 | 16.4 | 380 |
| | | | | | | DF15#(6.2)-30DP-0.65V | 24 | 11.5 | 6.5 | 24.4 | |
| | | | | | | DF15#(6.2)-40DP-0.65V | 24 | 11.5 | 6.5 | 24.4 | |
| | | | | | | DF15#(6.2)-50DP-0.65V | 32 | 14.5 | 6.5 | 32.4 | |

◆ Precautions for Use

1. Recommended Temperature Profile (SMT)



Note1: Maximum twice action is allowed under the same condition. However, the interval between the first process and second actions must be maintained at the room temperature.

Note2: The temperature indicates the board surface temperature in the connector lead area.

2. Recommended Manual Soldering Condition (SMT)

Soldering iron temperature: $290 \pm 10^\circ\text{C}$, Soldering time: Within 2 seconds

3. Recommended Screen Thickness (SMT)

0.15mm

4. Board Warp (SMT)

Max 0.03mm in the connector center area, based on the both connector edges

5. Cleaning Condition

Refer to the "Nylon Connector Use Hand book".

6. Cautions

- The receptacle is designed in a structure where contacts are exposed. Touching it with bare hands would cause contact failure or electrostatic element damage.
- Where no board is mounted, the insertion or extraction will cause damage or deformation in the contacts.
- Avoid retaining the board with the connector only, and fix the board by any other means than the connector.
- Excessive scoop insertion or extraction may result in damage.
- In the manual soldering process, don't carry out the flux coating which will cause a flux blister on the connector.
- The color phase of this product may be slightly different from that of the formed product according to the manufacturing lot. However, the difference doesn't affect the performance.