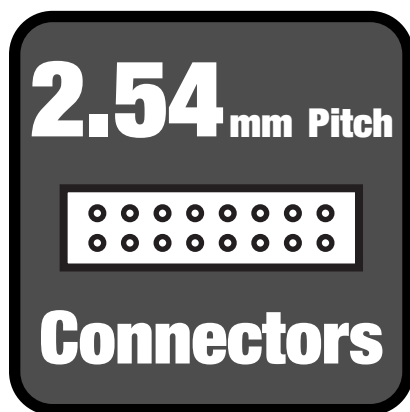




# FFC series

## 2.54 mm Pitch Connectors

### Outline

FFC series are highly reliable and proven 2.54 mm pitch PCB header connectors, which fit a wide range of uses.

### Features

- Can be used for board-to-cable or board-to-board applications in combination with female connectors such as HONDA HKP series.
- Can be used as a terminal board for switching between circuits on a PCB in combination with HONDA DIC series of connectors.
- The number of contacts are selectable as required.
- Pin is selectable to correspond to a mating female connector, or for other particular use.
- Two types of contact plating, gold plate and tin copper plate are available, which are selectable depending on usage.
- Two colors, black and blue, are available for molded insulators.
- Extracting a pin to prevent misinsertion is possible.

### Principal Applications

Office automation equipment and communications equipment

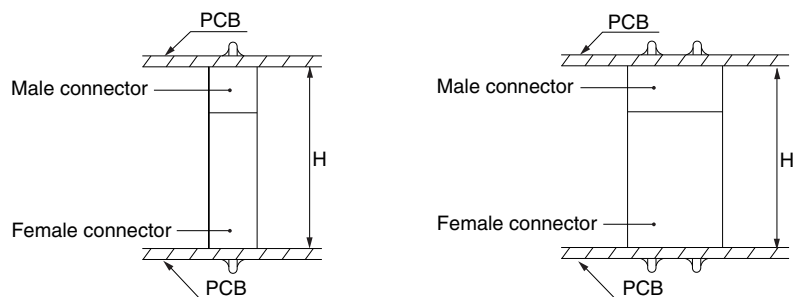
### Electrical Characteristics

|                                 |                                          |
|---------------------------------|------------------------------------------|
| Rated voltage                   | 300V AC                                  |
| Rated current                   | 3 A                                      |
| Insulation resistance           | Over 1000 megohms at 500V DC             |
| Dielectric withstanding voltage | 1000V AC (r.m.s.) (for up to one minute) |

#### Document Disclaimer

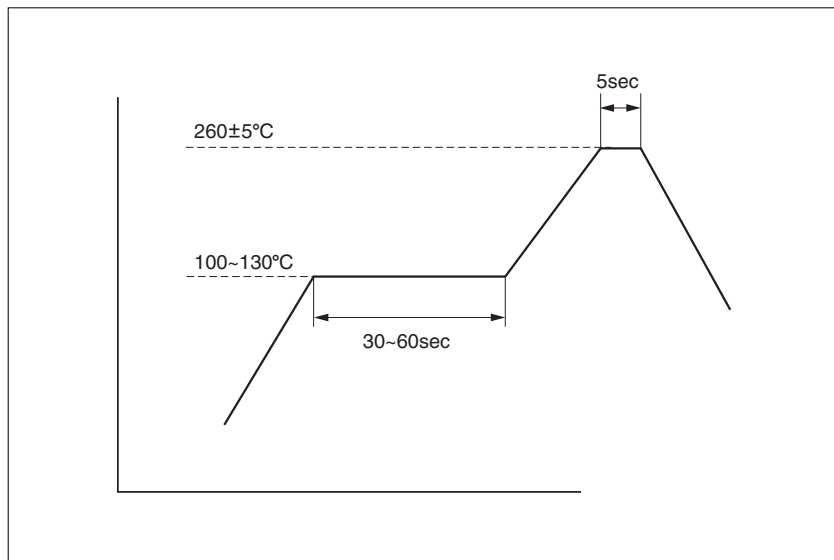
- When placing orders with us, minimum order quantities are set for every product.
- Be sure to contact us before starting preliminary design of PCBs using our connectors.
- The specifications and information shown in the catalog are subject to change without notice.

## Dimensions in Combination of Various Connectors are for Reference Purposes



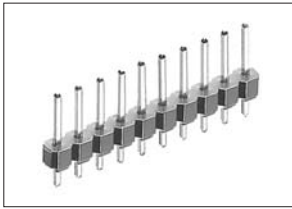
| Male connector  | Female connector | Type       | Pitch | Dimension between PCBs (H) | No. of contacts |
|-----------------|------------------|------------|-------|----------------------------|-----------------|
| FFC-( )T9AMEP1  | Z-220-( )FD( )   | Single Row | 2.54  | 10.54                      | 2~34            |
| FFC-( )T10AMEP1 | HKP-( )FDS2      |            |       | 12.04                      | 2~50            |
| FFC-( )THM1B    | Z-279-( )FD      | Double Row |       | 8.9                        | 4~56            |
| FFC-( )TDM1B    | Z-279-( )FD      |            |       | 10.04                      | 4~72            |
| FFC-( )BMEP1    | Z-325-( )FD2     |            |       | 11.04                      | 4~50            |
| FFC-( )T5BMEP1  | HKP-( )FD2       |            |       | 12.04                      | 4~70            |
| FFC-( )BMEP1    | Z-282-( )FD+     |            |       | 17.54                      | 4~62            |

### Flow temperature profile (for reference purposes)



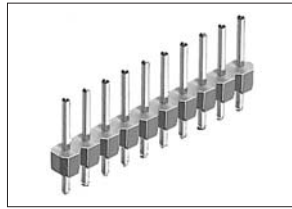
The flow temperature profile as shown above is for reference purposes. This profile depends on requirements such as the PCB size. Thus, this profile may not meet with your specific situation. Please evaluate your PCB-mounting soldering and set your own flow temperature profile.

## Product List



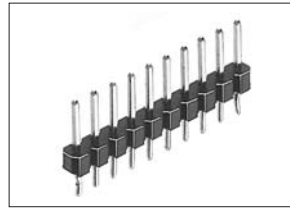
Straight through hole type  
male connector for PCB  
FFC-( ) (T) AMEP( ) ( )

**D-42**  
FFC series...4



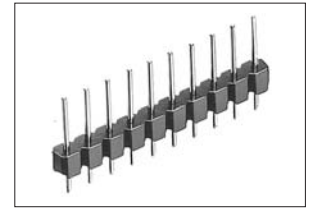
Straight through hole type  
male connector for PCB  
FFC-( ) ASM( ) ( ) ( )

**D-43**  
FFC series...5



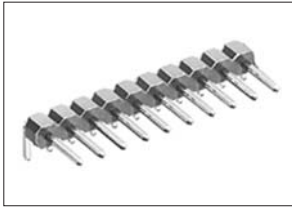
Straight through hole type  
male connector for PCB  
(Kink-formed contact type)  
FFC-( ) ASM4BR+

**D-44**  
FFC series...6



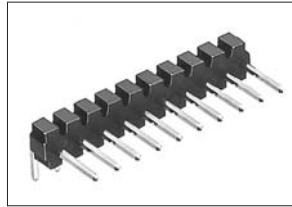
Straight through hole type  
male connector for PCB  
(Round contact type)  
FFC-( ) (T) CM( ) ( )

**D-45**  
FFC series...7



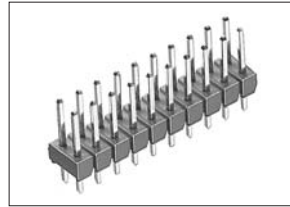
Right-angle through hole type  
male connector for PCB  
FFC-( ) (T) LAMEP( ) ( )

**D-46**  
FFC series...8



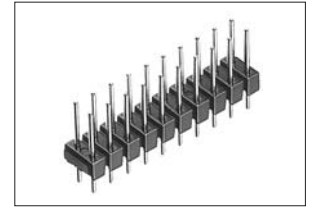
Right-angle through hole type  
male connector for PCB  
(Wide insulator type)  
FFC-( ) (T) LAW( ) ( )

**D-47**  
FFC series...9



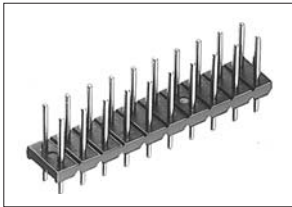
Straight through hole type  
male connector for PCB  
FFC-( ) (T) BMEP( ) ( )

**D-48**  
FFC series...10



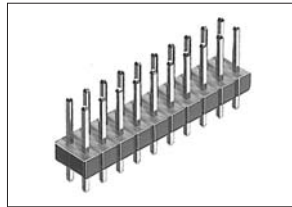
Straight through hole type  
male connector for PCB  
(Round contact type)  
FFC-( ) (T) DM( ) ( )

**D-49**  
FFC series...11



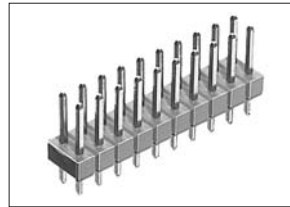
Straight through hole type  
male connector for PCB  
(Round contact type)  
FFC-( ) (T) HM( ) B

**D-50**  
FFC series...12



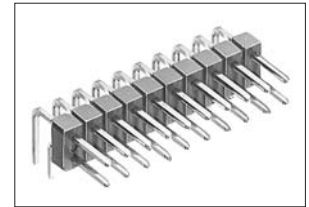
Straight through hole type  
male connector for PCB  
FFC-( ) BSM( ) ( ) ( )

**D-51**  
FFC series...13



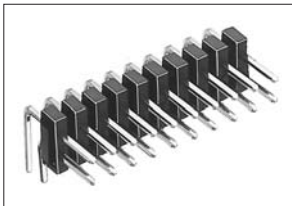
Straight through hole type  
male connector for PCB  
(Kink-formed contact type)  
FFC-( ) BSM4BR+

**D-52**  
FFC series...14



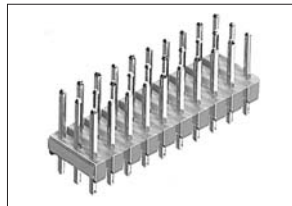
Right-angle through hole type  
male connector for PCB  
FFC-( ) (T) LBMEP( ) ( )

**D-53**  
FFC series...15



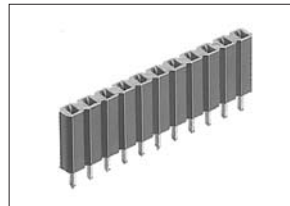
Right-angle through hole type  
male connector for PCB  
(Wide insulator type)  
FFC-( ) (T) LBW( ) ( )

**D-54**  
FFC series...16



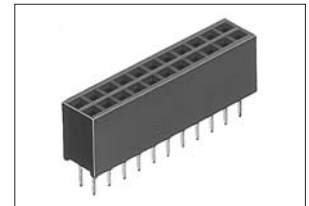
Straight through hole type  
male connector for PCB  
FFC-( ) NSM( ) ( )

**D-55**  
FFC series...17



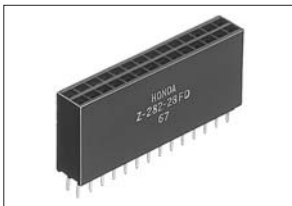
Straight through hole type  
female connector for PCB  
Z-220-( ) FD

**D-56**  
FFC series...18



Straight through hole type  
female connector for PCB  
Z-325-( ) FD2

**D-57**  
FFC series...19



Straight through hole type  
female connector for PCB  
Z-282-( ) FD+

**D-58**  
FFC series...20



Straight through hole type  
female connector for PCB  
(round contact type)  
Z-279-( ) FD

**D-59**  
FFC series...21



Straight through hole type  
female connector for PCB  
(Square contact type)  
Z-279S-( ) FD

**D-60**  
FFC series...22

# Straight through hole type male connector for PCB

## FFC-( ) (T) AMEP( ) ( )

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS

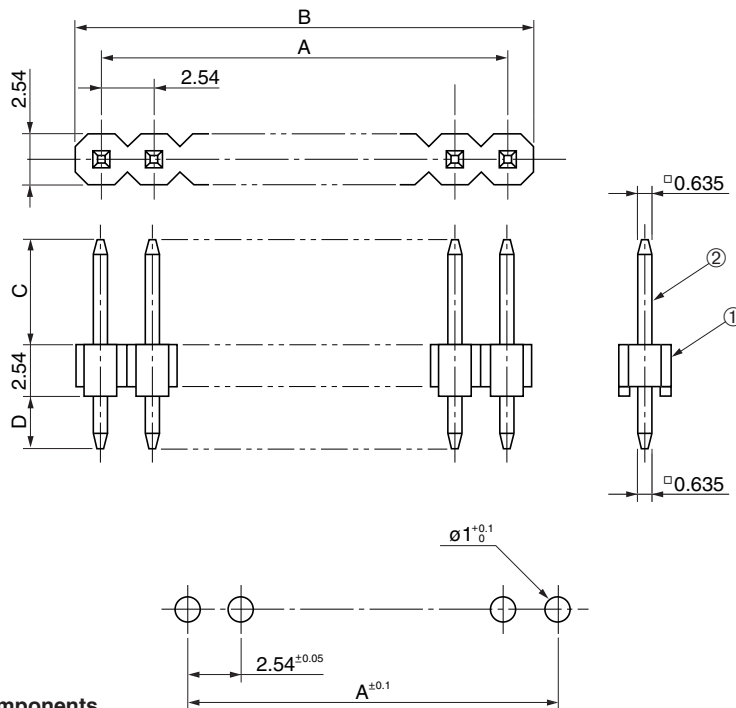


## ● Configuration of product Part No.

FFC- ( ) (T) AMEP ( ) ( )

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② No. of contacts: 1–52
- ③ Length of contact  
Blank: Standard (6 mm)  
T, T1–T18 (Refer to the following dimension table.)
- ④ Type of contact  
AMEP: 0.635 mm square contacts, single row type
- ⑤ Contact plating  
1 : Gold plate  
21: Tin copper plate
- ⑥ Insulator color  
Blank: Blue  
B : Black



## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

## Recommended PCB layout

| Part No.                | C     | D     | Part No.                 | C    | D    |
|-------------------------|-------|-------|--------------------------|------|------|
| FFC-(1~52)AMEP( ) ( )   | 6     | 2.5   | FFC-(1~52)T9AMEP( ) ( )  | 5    | 2.5  |
| FFC-(1~52)TAMEP( ) ( )  | 10.86 |       | FFC-(1~52)T10AMEP( ) ( ) | 7    |      |
| FFC-(1~52)T1AMEP( ) ( ) | 5.84  | 3.43  | FFC-(1~52)T11AMEP( ) ( ) | 8.54 | 4    |
| FFC-(1~52)T2AMEP( ) ( ) | 5.72  | 12.7  | FFC-(1~52)T12AMEP( ) ( ) | 9.5  |      |
| FFC-(1~52)T3AMEP( ) ( ) |       | 17.78 | FFC-(1~52)T13AMEP( ) ( ) | 5.84 | 3.43 |
| FFC-(1~52)T4AMEP( ) ( ) |       | 5.08  | FFC-(1~52)T14AMEP( ) ( ) | 7.5  |      |
| FFC-(1~52)T5AMEP( ) ( ) |       | 20.32 | FFC-(1~52)T15AMEP( ) ( ) | 1.8  | 1.7  |
| FFC-(1~52)T6AMEP( ) ( ) | 6     | 3     | FFC-(1~52)T16AMEP( ) ( ) | 15.4 | 1.11 |
| FFC-(1~52)T7AMEP( ) ( ) | 5.72  | 2.54  | FFC-(1~52)T18AMEP( ) ( ) | 7.5  | 2    |
| FFC-(1~52)T8AMEP( ) ( ) |       | 10.16 |                          |      |      |

\* T17 is obsolete.

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 1               | —     | 2.54  | 27              | 66.04  | 68.58  |
| 2               | 2.54  | 5.08  | 28              | 68.58  | 71.12  |
| 3               | 5.08  | 7.62  | 29              | 71.12  | 73.66  |
| 4               | 7.62  | 10.16 | 30              | 73.66  | 76.20  |
| 5               | 10.16 | 12.70 | 31              | 76.20  | 78.74  |
| 6               | 12.70 | 15.24 | 32              | 78.74  | 81.28  |
| 7               | 15.24 | 17.78 | 33              | 81.28  | 83.82  |
| 8               | 17.78 | 20.32 | 34              | 83.82  | 86.36  |
| 9               | 20.32 | 22.86 | 35              | 86.36  | 88.90  |
| 10              | 22.86 | 25.40 | 36              | 88.90  | 91.44  |
| 11              | 25.40 | 27.94 | 37              | 91.44  | 93.98  |
| 12              | 27.94 | 30.48 | 38              | 93.98  | 96.52  |
| 13              | 30.48 | 33.02 | 39              | 96.52  | 99.06  |
| 14              | 33.02 | 35.56 | 40              | 99.06  | 101.60 |
| 15              | 35.56 | 38.10 | 41              | 101.60 | 104.14 |
| 16              | 38.10 | 40.64 | 42              | 104.14 | 106.68 |
| 17              | 40.64 | 43.18 | 43              | 106.68 | 109.22 |
| 18              | 43.18 | 45.72 | 44              | 109.22 | 111.76 |
| 19              | 45.72 | 48.26 | 45              | 111.76 | 114.30 |
| 20              | 48.26 | 50.80 | 46              | 114.30 | 116.84 |
| 21              | 50.80 | 53.34 | 47              | 116.84 | 119.38 |
| 22              | 53.34 | 55.88 | 48              | 119.38 | 121.92 |
| 23              | 55.88 | 58.42 | 49              | 121.92 | 124.46 |
| 24              | 58.42 | 60.96 | 50              | 124.46 | 127.00 |
| 25              | 60.96 | 63.50 | 51              | 127.00 | 129.54 |
| 26              | 63.50 | 66.04 | 52              | 129.54 | 132.08 |

Mating connectors: DIC series or HKP series female connector

Z-220-( )FD (Cross section of contact: FFC-( )T9AMEP1(B) 0.635 mm square, Length of contact: 5 mm)

# Straight through hole type male connector for PCB

## FFC-( )ASM( )( )

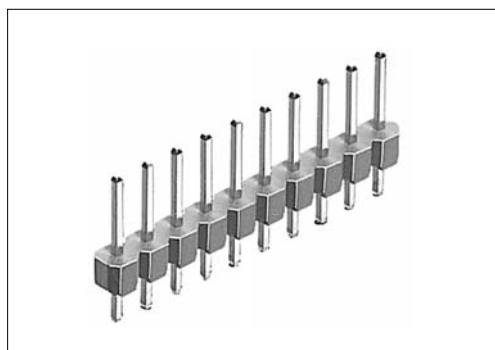
2.54 mm pitch connector

For PCB

Straight Through hole

RoHS

Contact structure is designed to prevent flux entry during contact soldering.



## ● Configuration of product Part No.

FFC-( )ASM( )( )

① ② ③ ④ ⑤ ⑥

① Series name

② No. of contacts: 1–52

③ Type of contact

ASM: 0.635 mm square contacts,  
single row type, contact  
structure is designed to  
prevent flux entry during  
contact soldering.

④⑥ Contact plating

1 : Gold plate

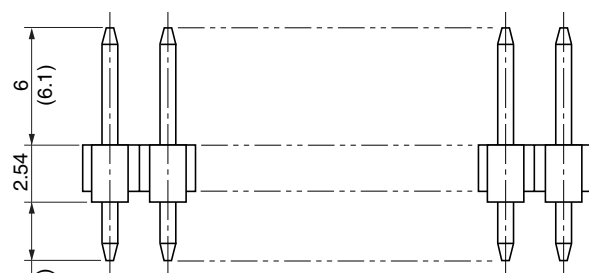
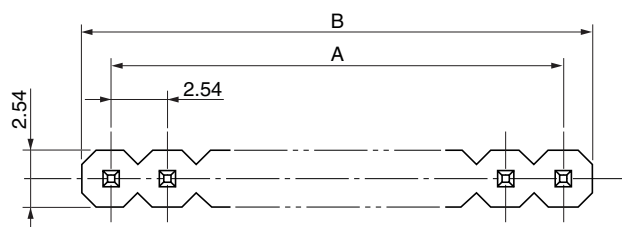
22 : Tin plate

4 / + : Gold plate,

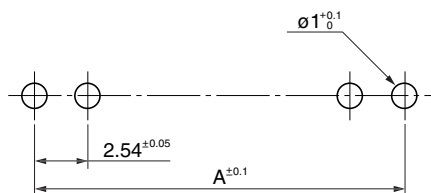
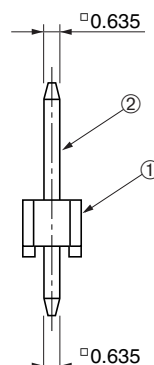
⑤ Insulator color

Blank: Blue

B : Black



The dimensions within parentheses are for ASM4( )+  
configuration of product part numbers.



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 1               | —     | 2.54  | 27              | 66.04  | 68.58  |
| 2               | 2.54  | 5.08  | 28              | 68.58  | 71.12  |
| 3               | 5.08  | 7.62  | 29              | 71.12  | 73.66  |
| 4               | 7.62  | 10.16 | 30              | 73.66  | 76.20  |
| 5               | 10.16 | 12.70 | 31              | 76.20  | 78.74  |
| 6               | 12.70 | 15.24 | 32              | 78.74  | 81.28  |
| 7               | 15.24 | 17.78 | 33              | 81.28  | 83.82  |
| 8               | 17.78 | 20.32 | 34              | 83.82  | 86.36  |
| 9               | 20.32 | 22.86 | 35              | 86.36  | 88.90  |
| 10              | 22.86 | 25.40 | 36              | 88.90  | 91.44  |
| 11              | 25.40 | 27.94 | 37              | 91.44  | 93.98  |
| 12              | 27.94 | 30.48 | 38              | 93.98  | 96.52  |
| 13              | 30.48 | 33.02 | 39              | 96.52  | 99.06  |
| 14              | 33.02 | 35.56 | 40              | 99.06  | 101.60 |
| 15              | 35.56 | 38.10 | 41              | 101.60 | 104.14 |
| 16              | 38.10 | 40.64 | 42              | 104.14 | 106.68 |
| 17              | 40.64 | 43.18 | 43              | 106.68 | 109.22 |
| 18              | 43.18 | 45.72 | 44              | 109.22 | 111.76 |
| 19              | 45.72 | 48.26 | 45              | 111.76 | 114.30 |
| 20              | 48.26 | 50.80 | 46              | 114.30 | 116.84 |
| 21              | 50.80 | 53.34 | 47              | 116.84 | 119.38 |
| 22              | 53.34 | 55.88 | 48              | 119.38 | 121.92 |
| 23              | 55.88 | 58.42 | 49              | 121.92 | 124.46 |
| 24              | 58.42 | 60.96 | 50              | 124.46 | 127.00 |
| 25              | 60.96 | 63.50 | 51              | 127.00 | 129.54 |
| 26              | 63.50 | 66.04 | 52              | 129.54 | 132.08 |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Note: Contact structure is designed to prevent flux  
entry during contact soldering.

Mating connectors: DIC series or HKP series female connector

Others

Wire  
wrapping

Crimping

Soldering

IDC

Press-in

SMT

Through  
hole

# Straight through hole type male connector for PCB (Kink-formed contact type) FFC-( )ASM4BR+

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS



## ● Configuration of product Part No.

FFC- ( ) ASM 4 B R+

① ② ③ ④ ⑤ ⑥

① Series name

② No. of contacts: 1–35

③ Type of contact

ASM: 0.635 mm square contacts,  
single row type, contact  
structure is designed to  
prevent flux entry during  
contact soldering.

④ Contact plating

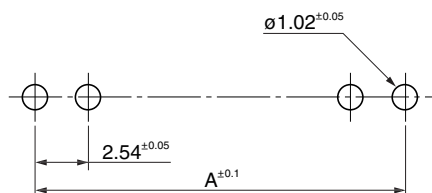
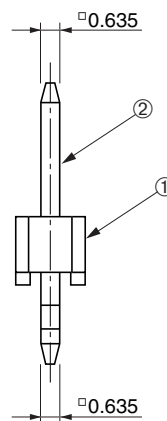
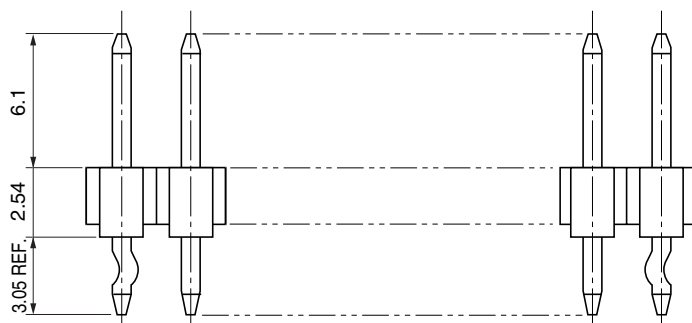
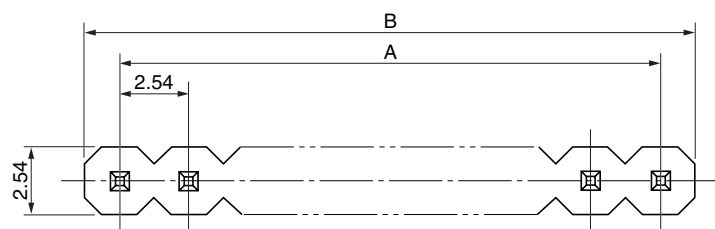
4: Gold plate

⑤ Insulator color

B: Black

⑥ Type of through hole portion of contact

R: Kink-formed contact (the left-  
and right-most contacts)



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 1               | —     | 2.54  |
| 2               | 2.54  | 5.08  |
| 3               | 5.08  | 7.62  |
| 4               | 7.62  | 10.16 |
| 5               | 10.16 | 12.70 |
| 6               | 12.70 | 15.24 |
| 7               | 15.24 | 17.78 |
| 8               | 17.78 | 20.32 |
| 9               | 20.32 | 22.86 |
| 10              | 22.86 | 25.40 |
| 11              | 25.40 | 27.94 |
| 12              | 27.94 | 30.48 |
| 13              | 30.48 | 33.02 |
| 14              | 33.02 | 35.56 |
| 15              | 35.56 | 38.10 |
| 16              | 38.10 | 40.64 |
| 17              | 40.64 | 43.18 |
| 18              | 43.18 | 45.72 |
| 19              | 45.72 | 48.26 |
| 20              | 48.26 | 50.80 |
| 21              | 50.80 | 53.34 |
| 22              | 53.34 | 55.88 |
| 23              | 55.88 | 58.42 |
| 24              | 58.42 | 60.96 |
| 25              | 60.96 | 63.50 |
| 26              | 63.50 | 66.04 |
| 27              | 66.04 | 68.58 |
| 28              | 68.58 | 71.12 |
| 29              | 71.12 | 73.66 |
| 30              | 73.66 | 76.20 |
| 31              | 76.20 | 78.74 |
| 32              | 78.74 | 81.28 |
| 33              | 81.28 | 83.82 |
| 34              | 83.82 | 86.36 |
| 35              | 86.36 | 88.90 |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Mating connectors: DIC series or HKP series female connector

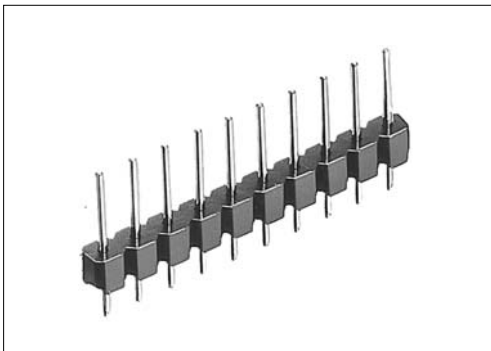
# Straight through hole type male connector for PCB (Round contact type) FFC-( ) (T ) CM( ) ( )

RoHS

2.54 mm pitch connector

For PCB

Straight Through hole

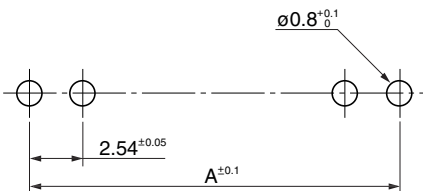
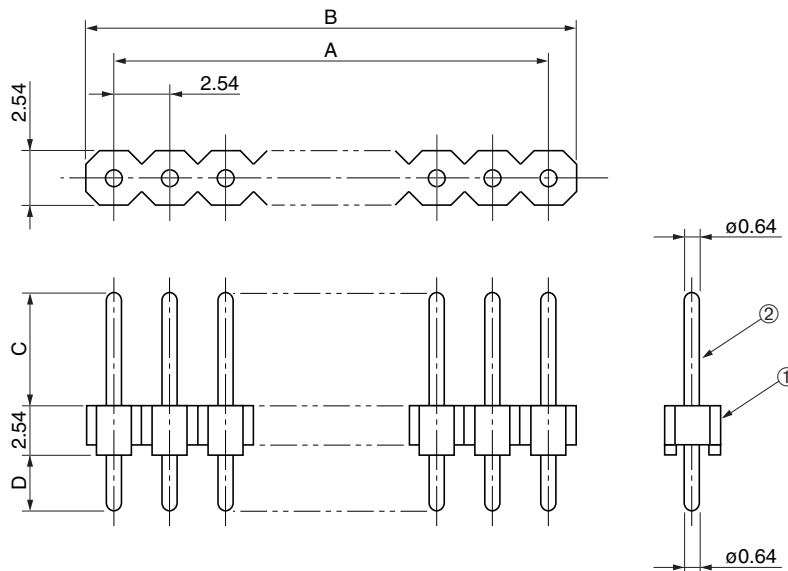


## ● Configuration of product Part No.

FFC-( ) (T ) CM( ) ( )

① ② ③ ④ ⑤ ⑥

- ① Series name  
 ② No. of contacts: 1-52  
 ③ Length of contact  
 Blank: Standard  
 T, T1-T12 (Refer to the following dimension table.)  
 ④ Type of contact  
 CM: 0.64 mm diameter contacts, single row type  
 ⑤ Contact plating  
 1 : Gold plate  
 22: Tin plate  
 ⑥ Insulator color  
 Blank: Blue  
 B : Black



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 1               | —     | 2.54  | 27              | 66.04  | 68.58  |
| 2               | 2.54  | 5.08  | 28              | 68.58  | 71.12  |
| 3               | 5.08  | 7.62  | 29              | 71.12  | 73.66  |
| 4               | 7.62  | 10.16 | 30              | 73.66  | 76.20  |
| 5               | 10.16 | 12.70 | 31              | 76.20  | 78.74  |
| 6               | 12.70 | 15.24 | 32              | 78.74  | 81.28  |
| 7               | 15.24 | 17.78 | 33              | 81.28  | 83.82  |
| 8               | 17.78 | 20.32 | 34              | 83.82  | 86.36  |
| 9               | 20.32 | 22.86 | 35              | 86.36  | 88.90  |
| 10              | 22.86 | 25.40 | 36              | 88.90  | 91.44  |
| 11              | 25.40 | 27.94 | 37              | 91.44  | 93.98  |
| 12              | 27.94 | 30.48 | 38              | 93.98  | 96.52  |
| 13              | 30.48 | 33.02 | 39              | 96.52  | 99.06  |
| 14              | 33.02 | 35.56 | 40              | 99.06  | 101.60 |
| 15              | 35.56 | 38.10 | 41              | 101.60 | 104.14 |
| 16              | 38.10 | 40.64 | 42              | 104.14 | 106.68 |
| 17              | 40.64 | 43.18 | 43              | 106.68 | 109.22 |
| 18              | 43.18 | 45.72 | 44              | 109.22 | 111.76 |
| 19              | 45.72 | 48.26 | 45              | 111.76 | 114.30 |
| 20              | 48.26 | 50.80 | 46              | 114.30 | 116.84 |
| 21              | 50.80 | 53.34 | 47              | 116.84 | 119.38 |
| 22              | 53.34 | 55.88 | 48              | 119.38 | 121.92 |
| 23              | 55.88 | 58.42 | 49              | 121.92 | 124.46 |
| 24              | 58.42 | 60.96 | 50              | 124.46 | 127.00 |
| 25              | 60.96 | 63.50 | 51              | 127.00 | 129.54 |
| 26              | 63.50 | 66.04 | 52              | 129.54 | 132.08 |

| Part No.               | C    | D    |
|------------------------|------|------|
| FFC-(1~52)CM( ) ( )    | 6    | 2.5  |
| FFC-(1~52)TCM( ) ( )   | 4.4  |      |
| FFC-(1~52)T1CM( ) ( )  | 5    |      |
| FFC-(1~52)T2CM( ) ( )  | 4.66 | 6    |
| FFC-(1~52)T3CM( ) ( )  | 7.41 | —    |
| FFC-(1~52)T4CM( ) ( )  | 5.46 | 5    |
| FFC-(1~52)T5CM( ) ( )  | —    | 6.96 |
| FFC-(1~52)T6CM( ) ( )  | 7.7  | 2.76 |
| FFC-(1~52)T7CM( ) ( )  | 1.5  | 6    |
| FFC-(1~52)T8CM( ) ( )  | 1.95 | 1.91 |
| FFC-(1~52)T9CM( ) ( )  | 2.9  | 2.86 |
| FFC-(1~52)T10CM( ) ( ) | 2.5  | 6    |
| FFC-(1~52)T11CM( ) ( ) | 5.46 | 3.04 |
| FFC-(1~52)T12CM( ) ( ) |      | 0.3  |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Mating connectors: DIC series female connector

# Right-angle through hole type male connector for PCB

## FFC-( ) (T) LAMEP( ) ( )

2.54 mm pitch connector

For PCB

Right-angle Through hole

RoHS

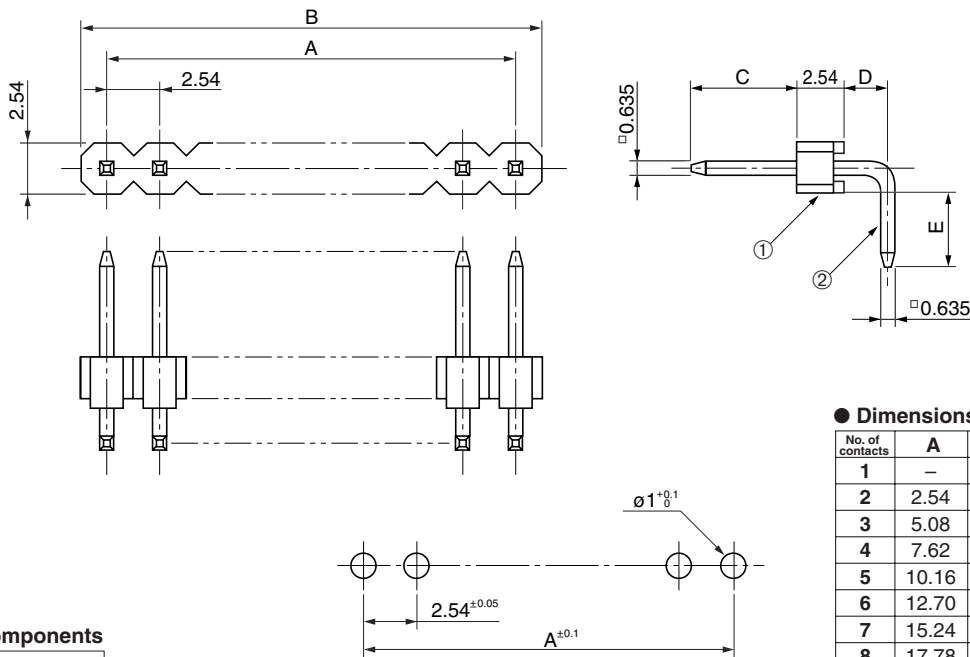


## ● Configuration of product Part No.

FFC- ( ) (T) LAMEP ( ) ( )

① ② ③ ④ ⑤ ⑥ ⑦

- ① Series name
- ② No. of contacts: 1–52
- ③ Length of contact  
Blank: Standard  
T, T1–T27 (Refer to the following dimension table.)
- ④ Type of contact  
L: Right-angle
- ⑤ Type of contact  
AMEP: 0.635 mm square contacts, single row type
- ⑥ Contact plating  
1 : Gold plate  
21: Tin copper plate
- ⑦ Insulator color  
Blank: Blue  
B : Black



## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 1               | —     | 2.54  | 27              | 66.04  | 68.58  |
| 2               | 2.54  | 5.08  | 28              | 68.58  | 71.12  |
| 3               | 5.08  | 7.62  | 29              | 71.12  | 73.66  |
| 4               | 7.62  | 10.16 | 30              | 73.66  | 76.20  |
| 5               | 10.16 | 12.70 | 31              | 76.20  | 78.74  |
| 6               | 12.70 | 15.24 | 32              | 78.74  | 81.28  |
| 7               | 15.24 | 17.78 | 33              | 81.28  | 83.82  |
| 8               | 17.78 | 20.32 | 34              | 83.82  | 86.36  |
| 9               | 20.32 | 22.86 | 35              | 86.36  | 88.90  |
| 10              | 22.86 | 25.40 | 36              | 88.90  | 91.44  |
| 11              | 25.40 | 27.94 | 37              | 91.44  | 93.98  |
| 12              | 27.94 | 30.48 | 38              | 93.98  | 96.52  |
| 13              | 30.48 | 33.02 | 39              | 96.52  | 99.06  |
| 14              | 33.02 | 35.56 | 40              | 99.06  | 101.60 |
| 15              | 35.56 | 38.10 | 41              | 101.60 | 104.14 |
| 16              | 38.10 | 40.64 | 42              | 104.14 | 106.68 |
| 17              | 40.64 | 43.18 | 43              | 106.68 | 109.22 |
| 18              | 43.18 | 45.72 | 44              | 109.22 | 111.76 |
| 19              | 45.72 | 48.26 | 45              | 111.76 | 114.30 |
| 20              | 48.26 | 50.80 | 46              | 114.30 | 116.84 |
| 21              | 50.80 | 53.34 | 47              | 116.84 | 119.38 |
| 22              | 53.34 | 55.88 | 48              | 119.38 | 121.92 |
| 23              | 55.88 | 58.42 | 49              | 121.92 | 124.46 |
| 24              | 58.42 | 60.96 | 50              | 124.46 | 127.00 |
| 25              | 60.96 | 63.50 | 51              | 127.00 | 129.54 |
| 26              | 63.50 | 66.04 | 52              | 129.54 | 132.08 |

| Part No.                  | C    | D    | E     | Part No.                  | C    | D    | E    |
|---------------------------|------|------|-------|---------------------------|------|------|------|
| FFC-(1-52)LAMEP( ) ( )    | 6    | 1.27 | 3.45  | FFC-(1-52)T14LAMEP( ) ( ) | 5.72 | 3.94 | 6    |
| FFC-(1-52)TLAMEP( ) ( )   |      | 3.81 | 5.95  | FFC-(1-52)T15LAMEP( ) ( ) |      | 6.48 | 8.5  |
| FFC-(1-52)T1LAMEP( ) ( )  | 1.4  | 5.72 | 2.6   | FFC-(1-52)T16LAMEP( ) ( ) | 8.51 | 1.4  | 3    |
| FFC-(1-52)T2LAMEP( ) ( )  |      |      | 5.1   | FFC-(1-52)T17LAMEP( ) ( ) |      | 3.94 | 5.5  |
| FFC-(1-52)T3LAMEP( ) ( )  |      |      | 7.65  | FFC-(1-52)T18LAMEP( ) ( ) |      | 2.6  | 1.4  |
| FFC-(1-52)T4LAMEP( ) ( )  |      |      | 10.2  | FFC-(1-52)T19LAMEP( ) ( ) |      | 5    | 2.6  |
| FFC-(1-52)T5LAMEP( ) ( )  |      |      | 12.7  | FFC-(1-52)T20LAMEP( ) ( ) | 7    | 1.27 | 3.45 |
| FFC-(1-52)T6LAMEP( ) ( )  |      |      | 15.3  | FFC-(1-52)T23LAMEP( ) ( ) |      |      |      |
| FFC-(1-52)T7LAMEP( ) ( )  |      |      | 5.1   | FFC-(1-52)T24LAMEP( ) ( ) | 3.3  | 1.46 | 3.2  |
| FFC-(1-52)T8LAMEP( ) ( )  |      |      | 7.65  | FFC-(1-52)T25LAMEP( ) ( ) | 3.2  | 1.27 | 2.6  |
| FFC-(1-52)T9LAMEP( ) ( )  | 3.94 | 5.72 | 10.2  | FFC-(1-52)T26LAMEP( ) ( ) | 7    | 3.81 | 1.93 |
| FFC-(1-52)T10LAMEP( ) ( ) |      |      | 12.7  | FFC-(1-52)T27LAMEP( ) ( ) | 3    | 13.5 | 5.5  |
| FFC-(1-52)T11LAMEP( ) ( ) |      |      | 15.27 |                           |      |      |      |
| FFC-(1-52)T13LAMEP( ) ( ) | 1.4  |      | 3.45  |                           |      |      |      |

\* T12, T21 and T22 is obsolete.

Mating connectors: DIC series or HKP series female connector

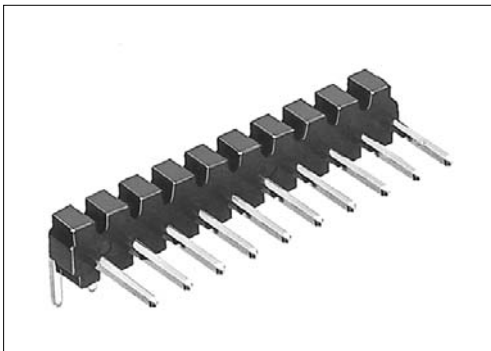
# Right-angle through hole type male connector for PCB (Wide insulator type) FFC-( ) (T ) LAW( ) ( )

RoHS

2.54 mm pitch connector

For PCB

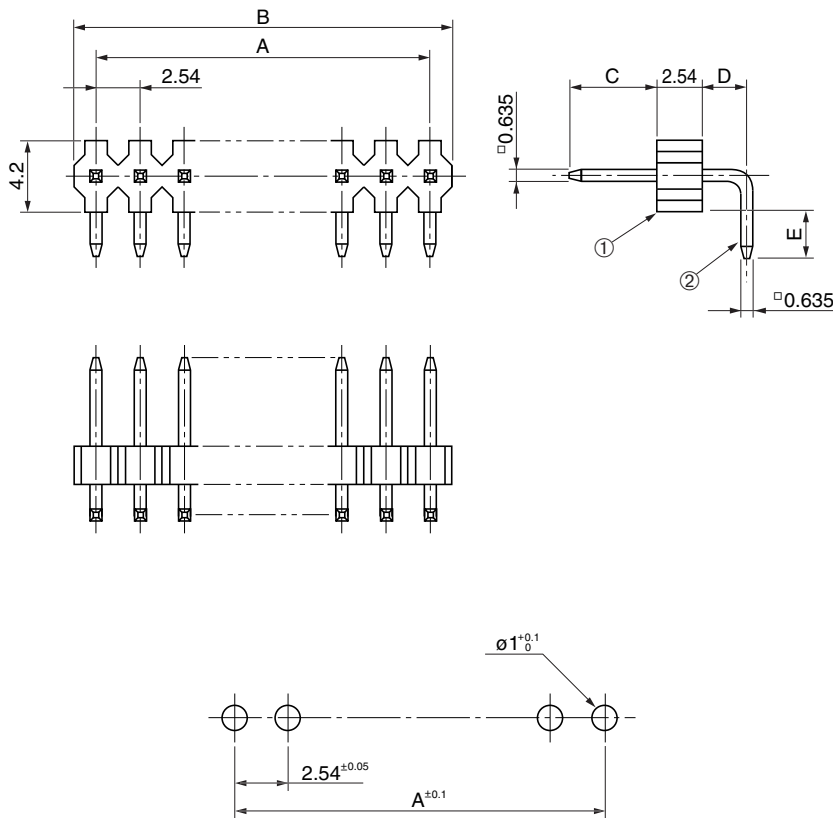
Right-angle Through hole



## ● Configuration of product Part No.

FFC-( ) (T ) LAW( ) ( )

- |                                                    |                                                                    |
|----------------------------------------------------|--------------------------------------------------------------------|
| ① Series name                                      | ⑤ Type of contact                                                  |
| ② No. of contacts: 1-52                            | AW: 0.635 mm square contacts, single row type, wide insulator type |
| ③ Length of contact                                | ⑥ Contact plating                                                  |
| Blank: Standard                                    | 1 : Gold plate                                                     |
| T, T1 T2 (Refer to the following dimension table.) | 21: Tin copper plate                                               |
| ④ Type of contact                                  | ⑦ Insulator color                                                  |
| L: Right-angle                                     | Blank: Blue                                                        |
|                                                    | B : Black                                                          |



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 1               | —     | 2.54  | 27              | 66.04  | 68.58  |
| 2               | 2.54  | 5.08  | 28              | 68.58  | 71.12  |
| 3               | 5.08  | 7.62  | 29              | 71.12  | 73.66  |
| 4               | 7.62  | 10.16 | 30              | 73.66  | 76.20  |
| 5               | 10.16 | 12.70 | 31              | 76.20  | 78.74  |
| 6               | 12.70 | 15.24 | 32              | 78.74  | 81.28  |
| 7               | 15.24 | 17.78 | 33              | 81.28  | 83.82  |
| 8               | 17.78 | 20.32 | 34              | 83.82  | 86.36  |
| 9               | 20.32 | 22.86 | 35              | 86.36  | 88.90  |
| 10              | 22.86 | 25.40 | 36              | 88.90  | 91.44  |
| 11              | 25.40 | 27.94 | 37              | 91.44  | 93.98  |
| 12              | 27.94 | 30.48 | 38              | 93.98  | 96.52  |
| 13              | 30.48 | 33.02 | 39              | 96.52  | 99.06  |
| 14              | 33.02 | 35.56 | 40              | 99.06  | 101.60 |
| 15              | 35.56 | 38.10 | 41              | 101.60 | 104.14 |
| 16              | 38.10 | 40.64 | 42              | 104.14 | 106.68 |
| 17              | 40.64 | 43.18 | 43              | 106.68 | 109.22 |
| 18              | 43.18 | 45.72 | 44              | 109.22 | 111.76 |
| 19              | 45.72 | 48.26 | 45              | 111.76 | 114.30 |
| 20              | 48.26 | 50.80 | 46              | 114.30 | 116.84 |
| 21              | 50.80 | 53.34 | 47              | 116.84 | 119.38 |
| 22              | 53.34 | 55.88 | 48              | 119.38 | 121.92 |
| 23              | 55.88 | 58.42 | 49              | 121.92 | 124.46 |
| 24              | 58.42 | 60.96 | 50              | 124.46 | 127.00 |
| 25              | 60.96 | 63.50 | 51              | 127.00 | 129.54 |
| 26              | 63.50 | 66.04 | 52              | 129.54 | 132.08 |

## ● Components

|             |
|-------------|
| ① Insulator |
| ② Contact   |

| Part No.         | C | D    | E    |
|------------------|---|------|------|
| FFC-(1~52)LAW1   | 6 | 1.27 | 3.45 |
| FFC-(1~52)TLAW1  | 7 |      | 12   |
| FFC-(1~52)T1LAW1 |   |      | 0.8  |
| FFC-(1~52)T2LAW1 | 6 |      |      |

Mating connectors: DIC series or HKP series female connector

# Straight through hole type male connector for PCB

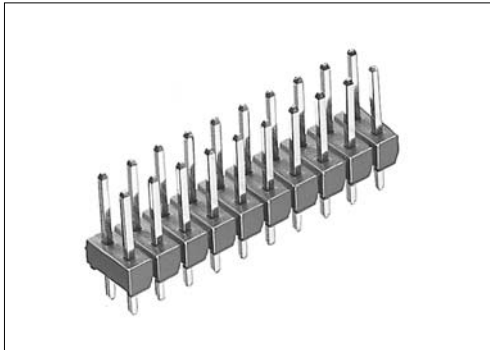
## FFC-( ) (T ) BMEP( ) ( )

2.54 mm pitch connector

For PCB

Straight Through hole

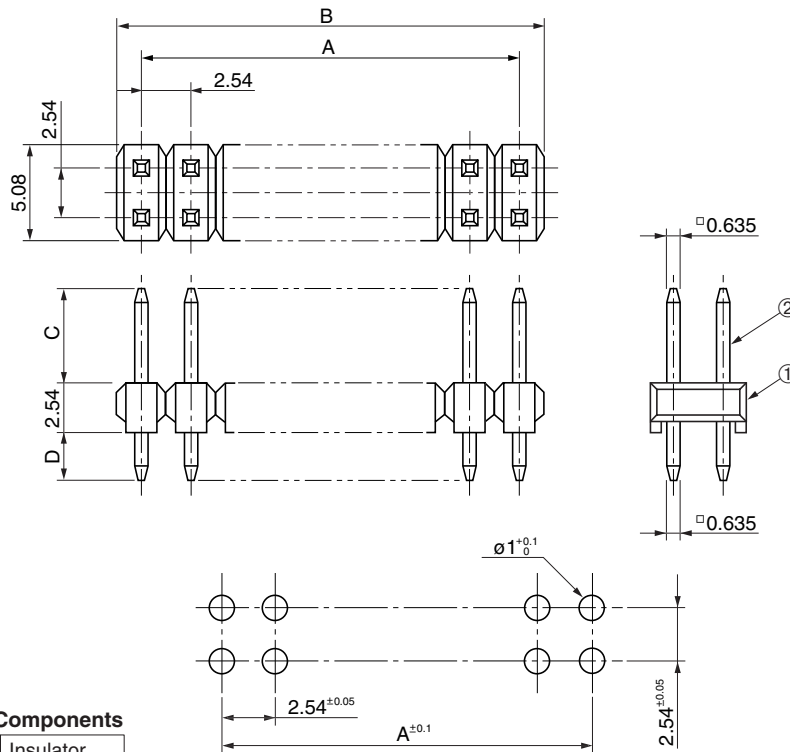
RoHS



## ● Configuration of product Part No.

FFC- ( ) (T ) BMEP ( ) ( )

- |               |                          |                                                     |                                                 |                      |                   |
|---------------|--------------------------|-----------------------------------------------------|-------------------------------------------------|----------------------|-------------------|
| ①             | ②                        | ③                                                   | ④                                               | ⑤                    | ⑥                 |
| ① Series name | ② No. of contacts: 4-144 | ③ Length of contact                                 | ④ Type of contact                               | ⑤ Contact plating    | ⑥ Insulator color |
|               |                          | Blank: Standard                                     |                                                 | 1 : Gold plate       | Blank: Blue       |
|               |                          | T, T1-T18 (Refer to the following dimension table.) | BMEP: 0.635 mm square contacts, double row type | 21: Tin copper plate | B : Black         |



## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Recommended PCB layout

| Part No.                 | C    | D     | Part No.                  | C     | D    |
|--------------------------|------|-------|---------------------------|-------|------|
| FFC-(4~144)BMEP( ) ( )   | 6    | 2.5   | FFC-(4~144)T8BMEP( ) ( )  | 10.86 | 2.5  |
| FFC-(4~144)TBMEP( ) ( )  | 5.72 | 2.54  | FFC-(4~144)T9BMEP( ) ( )  | 5     |      |
| FFC-(4~144)T1BMEP( ) ( ) | 5.84 | 3.43  | FFC-(4~144)T10BMEP( ) ( ) | 6     | 3    |
| FFC-(4~144)T2BMEP( ) ( ) | 5.72 | 12.7  | FFC-(4~144)T12BMEP( ) ( ) | 5.94  | 16.5 |
| FFC-(4~144)T3BMEP( ) ( ) |      | 17.78 | FFC-(4~144)T13BMEP( ) ( ) | 3     | 2    |
| FFC-(4~144)T4BMEP( ) ( ) | 7    | 5.08  | FFC-(4~144)T14BMEP( ) ( ) | 7     | 11   |
| FFC-(4~144)T5BMEP( ) ( ) |      | 2.5   | FFC-(4~144)T15BMEP( ) ( ) | 11.54 |      |
| FFC-(4~144)T6BMEP( ) ( ) | 8.54 |       | FFC-(4~144)T16BMEP( ) ( ) | 19    | 3    |
| FFC-(4~144)T7BMEP( ) ( ) | 7.5  | 3.43  | FFC-(4~144)T18BMEP( ) ( ) | 17    | 7    |

\* T11, 17 are obsolete.

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 4               | 2.54  | 5.08  | 76              | 93.98  | 96.52  |
| 6               | 5.08  | 7.62  | 78              | 96.52  | 99.06  |
| 8               | 7.62  | 10.16 | 80              | 99.06  | 101.60 |
| 10              | 10.16 | 12.70 | 82              | 101.60 | 104.14 |
| 12              | 12.70 | 15.24 | 84              | 104.14 | 106.68 |
| 14              | 15.24 | 17.78 | 86              | 106.68 | 109.22 |
| 16              | 17.78 | 20.32 | 88              | 109.22 | 111.76 |
| 18              | 20.32 | 22.86 | 90              | 111.76 | 114.30 |
| 20              | 22.86 | 25.40 | 92              | 114.30 | 116.84 |
| 22              | 25.40 | 27.94 | 94              | 116.84 | 119.38 |
| 24              | 27.94 | 30.48 | 96              | 119.38 | 121.92 |
| 26              | 30.48 | 33.02 | 98              | 121.92 | 124.46 |
| 28              | 33.02 | 35.56 | 100             | 124.46 | 127.00 |
| 30              | 35.56 | 38.10 | 102             | 127.00 | 129.54 |
| 32              | 38.10 | 40.64 | 104             | 129.54 | 132.08 |
| 34              | 40.64 | 43.18 | 106             | 132.08 | 134.62 |
| 36              | 43.18 | 45.72 | 108             | 134.62 | 137.16 |
| 38              | 45.72 | 48.26 | 110             | 137.16 | 139.70 |
| 40              | 48.26 | 50.80 | 112             | 139.70 | 142.24 |
| 42              | 50.80 | 53.34 | 114             | 142.24 | 144.78 |
| 44              | 53.34 | 55.88 | 116             | 144.78 | 147.32 |
| 46              | 55.88 | 58.42 | 118             | 147.32 | 149.86 |
| 48              | 58.42 | 60.96 | 120             | 149.86 | 152.40 |
| 50              | 60.96 | 63.50 | 122             | 152.40 | 154.94 |
| 52              | 63.50 | 66.04 | 124             | 154.94 | 157.48 |
| 54              | 66.04 | 68.58 | 126             | 157.48 | 160.02 |
| 56              | 68.58 | 71.12 | 128             | 160.02 | 162.56 |
| 58              | 71.12 | 73.66 | 130             | 162.56 | 165.10 |
| 60              | 73.66 | 76.20 | 132             | 165.10 | 167.64 |
| 62              | 76.20 | 78.74 | 134             | 167.64 | 170.18 |
| 64              | 78.74 | 81.28 | 136             | 170.18 | 172.72 |
| 66              | 81.28 | 83.82 | 138             | 172.72 | 175.26 |
| 68              | 83.82 | 86.36 | 140             | 175.26 | 177.80 |
| 70              | 86.36 | 88.90 | 142             | 177.80 | 180.34 |
| 72              | 88.90 | 91.44 | 144             | 180.34 | 182.88 |
| 74              | 91.44 | 93.98 |                 |        |        |

Mating connectors: DIC series or HKP series female connector

Z-282 or Z-325 female connector

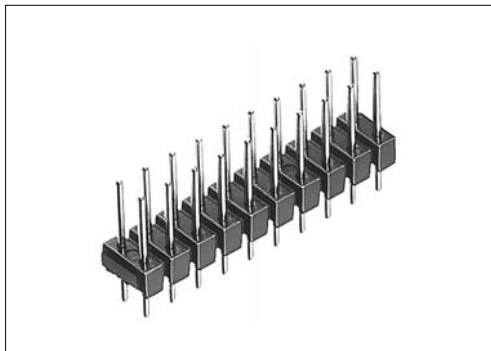
# Straight through hole type male connector for PCB (Round contact type) FFC-( ) (T ) DM( ) ( )

RoHS

2.54 mm pitch connector

For PCB

Straight Through hole

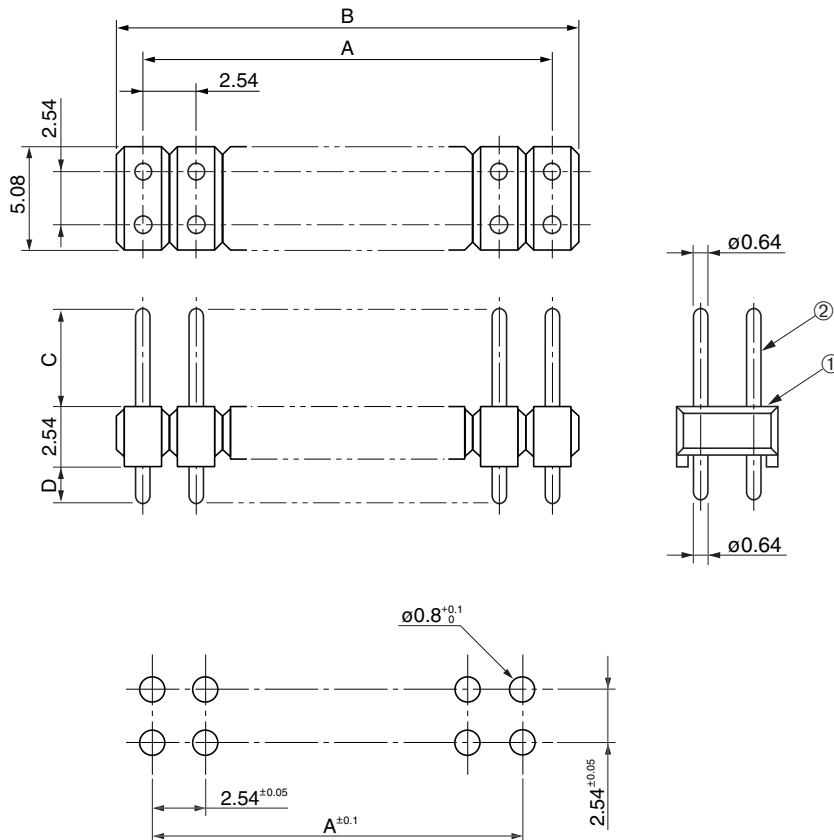


## ● Configuration of product Part No.

FFC-( ) (T ) DM( ) ( )

- ① Series name  
② No. of contacts: 4–144  
③ Length of contact  
Blank: Standard  
T, T1–T5 (Refer to the following dimension table.)  
④ Type of contact  
DM: 0.64 mm round contacts, double row type

- ⑤ Contact plating  
1 : Gold plate  
22: Tin plate  
⑥ Insulator color  
Blank: Blue  
B : Black



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 4               | 2.54  | 5.08  | 76              | 93.98  | 96.52  |
| 6               | 5.08  | 7.62  | 78              | 96.52  | 99.06  |
| 8               | 7.62  | 10.16 | 80              | 99.06  | 101.60 |
| 10              | 10.16 | 12.70 | 82              | 101.60 | 104.14 |
| 12              | 12.70 | 15.24 | 84              | 104.14 | 106.68 |
| 14              | 15.24 | 17.78 | 86              | 106.68 | 109.22 |
| 16              | 17.78 | 20.32 | 88              | 109.22 | 111.76 |
| 18              | 20.32 | 22.86 | 90              | 111.76 | 114.30 |
| 20              | 22.86 | 25.40 | 92              | 114.30 | 116.84 |
| 22              | 25.40 | 27.94 | 94              | 116.84 | 119.38 |
| 24              | 27.94 | 30.48 | 96              | 119.38 | 121.92 |
| 26              | 30.48 | 33.02 | 98              | 121.92 | 124.46 |
| 28              | 33.02 | 35.56 | 100             | 124.46 | 127.00 |
| 30              | 35.56 | 38.10 | 102             | 127.00 | 129.54 |
| 32              | 38.10 | 40.64 | 104             | 129.54 | 132.08 |
| 34              | 40.64 | 43.18 | 106             | 132.08 | 134.62 |
| 36              | 43.18 | 45.72 | 108             | 134.62 | 137.16 |
| 38              | 45.72 | 48.26 | 110             | 137.16 | 139.70 |
| 40              | 48.26 | 50.80 | 112             | 139.70 | 142.24 |
| 42              | 50.80 | 53.34 | 114             | 142.24 | 144.78 |
| 44              | 53.34 | 55.88 | 116             | 144.78 | 147.32 |
| 46              | 55.88 | 58.42 | 118             | 147.32 | 149.86 |
| 48              | 58.42 | 60.96 | 120             | 149.86 | 152.40 |
| 50              | 60.96 | 63.50 | 122             | 152.40 | 154.94 |
| 52              | 63.50 | 66.04 | 124             | 154.94 | 157.48 |
| 54              | 66.04 | 68.58 | 126             | 157.48 | 160.02 |
| 56              | 68.58 | 71.12 | 128             | 160.02 | 162.56 |
| 58              | 71.12 | 73.66 | 130             | 162.56 | 165.10 |
| 60              | 73.66 | 76.20 | 132             | 165.10 | 167.64 |
| 62              | 76.20 | 78.74 | 134             | 167.64 | 170.18 |
| 64              | 78.74 | 81.28 | 136             | 170.18 | 172.72 |
| 66              | 81.28 | 83.82 | 138             | 172.72 | 175.26 |
| 68              | 83.82 | 86.36 | 140             | 175.26 | 177.80 |
| 70              | 86.36 | 88.90 | 142             | 177.80 | 180.34 |
| 72              | 88.90 | 91.44 | 144             | 180.34 | 182.88 |
| 74              | 91.44 | 93.98 |                 |        |        |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

| Part No.               | C    | D    |
|------------------------|------|------|
| FFC-(4~144)DM( ) ( )   | 6    | 2.6  |
| FFC-(4~144)TDM( ) ( )  | 5    | 2.5  |
| FFC-(4~144)T1DM( ) ( ) | 4.66 | 6    |
| FFC-(4~144)T2DM( ) ( ) | 8.26 | 2.4  |
| FFC-(4~144)T3DM( ) ( ) | 5.1  | 3.5  |
| FFC-(4~144)T4DM( ) ( ) | 2.9  | 2.86 |
| FFC-(4~144)T5DM( ) ( ) | 1.95 | 1.91 |

Mating connectors: DIC series female connector

Z-279 female connector

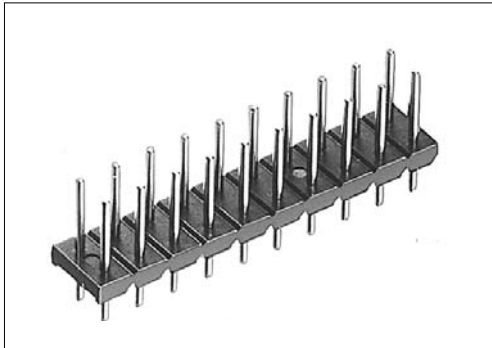
# Straight through hole type male connector for PCB (Round contact type) FFC-( ) (T ) HM( ) B

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS

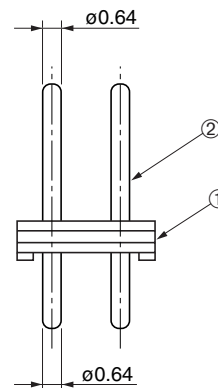
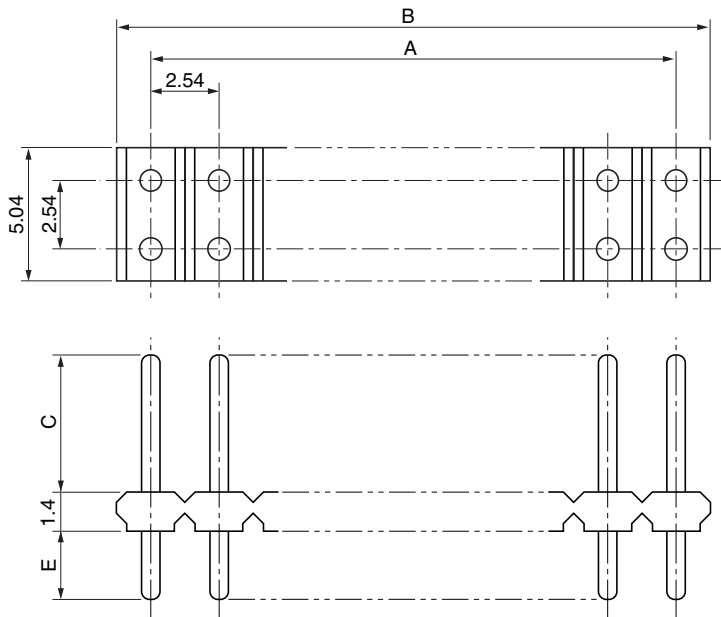


## ● Configuration of product Part No.

FFC- ( ) (T ) HM ( ) B

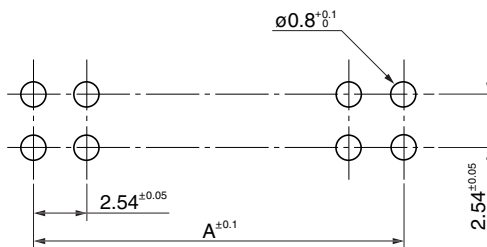
① ② ③ ④ ⑤ ⑥

- ① Series name
- ② No. of contacts: 4–56
- ③ Length of contact  
Blank: Standard  
T, T1–T7 (Refer to the following dimension table.)
- ④ Type of contact  
HM: 0.64 diameter contacts, double row type
- ⑤ Contact plating  
1 : Gold plate  
22: Tin plate
- ⑥ Insulator color  
B: Dark brown (only for HM connectors)



## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 4               | 2.54  | 5.08  |
| 6               | 5.08  | 7.62  |
| 8               | 7.62  | 10.16 |
| 10              | 10.16 | 12.70 |
| 12              | 12.70 | 15.24 |
| 14              | 15.24 | 17.78 |
| 16              | 17.78 | 20.32 |
| 18              | 20.32 | 22.86 |
| 20              | 22.86 | 25.40 |
| 22              | 25.40 | 27.94 |
| 24              | 27.94 | 30.48 |
| 26              | 30.48 | 33.02 |
| 28              | 33.02 | 35.56 |
| 30              | 35.56 | 38.10 |
| 32              | 38.10 | 40.64 |
| 34              | 40.64 | 43.18 |
| 36              | 43.18 | 45.72 |
| 38              | 45.72 | 48.26 |
| 40              | 48.26 | 50.80 |
| 42              | 50.80 | 53.34 |
| 44              | 53.34 | 55.88 |
| 46              | 55.88 | 58.42 |
| 48              | 58.42 | 60.96 |
| 50              | 60.96 | 63.50 |
| 52              | 63.50 | 66.04 |
| 54              | 66.04 | 68.58 |
| 56              | 68.58 | 71.12 |



Recommended PCB layout

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

| Part No.           | C    | E    |
|--------------------|------|------|
| FFC-(4~56)HM( )B   | 6    | 2.5  |
| FFC-(4~56)THM( )B  | 5    | 2.5  |
| FFC-(4~56)T1HM( )B | 6    | 3.2  |
| FFC-(4~56)T2HM( )B | 4.5  | 2.5  |
| FFC-(4~56)T3HM( )B |      | 3.2  |
| FFC-(4~56)T4HM( )B | 2.6  | 2.3  |
| FFC-(4~56)T5HM( )B | 1.1  | 6.6  |
| FFC-(4~56)T6HM( )B | 4.15 | 2.85 |
| FFC-(4~56)T7HM( )B | 1.6  | 2.5  |

Mating connectors: DIC series female connector

Z-279 female connector

# Straight through hole type male connector for PCB

## FFC-( )BSM( )( )( )

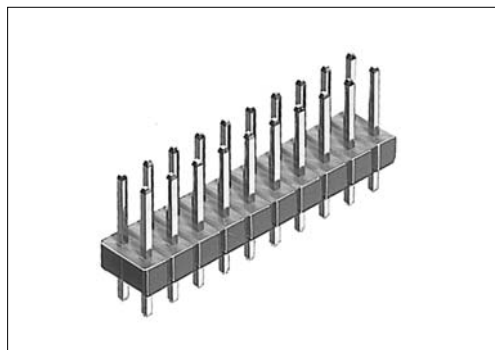
2.54 mm pitch connector

For PCB

Straight Through hole

RoHS

Contact structure is designed to prevent flux entry during contact soldering.



## ● Configuration of product Part No.

FFC-( ) BSM( )( )( )

① ② ③ ④ ⑤ ⑥

① Series name

② No. of contacts: 4–144

③ Type of contact

BSM: 0.635 square contacts, double row type, contact structure is designed to prevent flux entry during contact soldering.

④⑥ Contact plating

1 : Gold plate

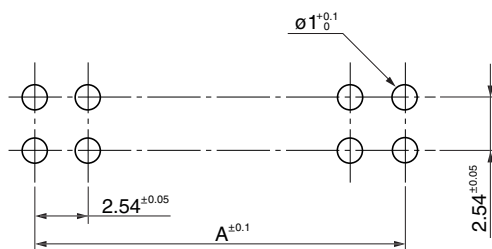
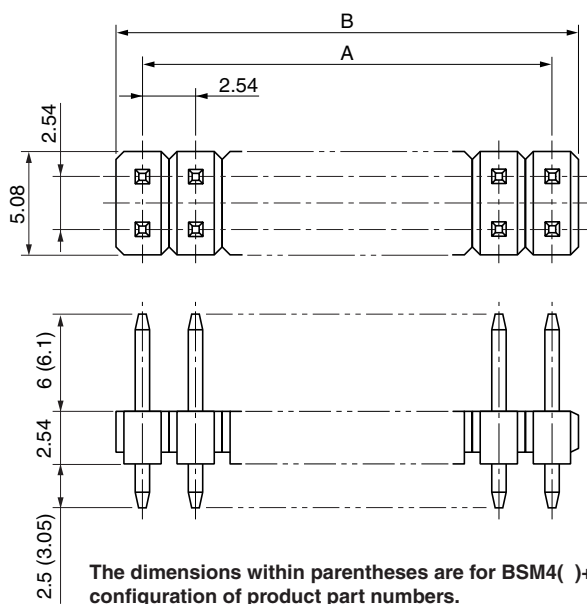
22 : Tin plate

4 / + : Gold plate

⑤ Insulator color

Blank: Blue

B : Black



Recommended PCB layout

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Note: Contact structure is designed to prevent flux entry during contact soldering.

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 4               | 2.54  | 5.08  | 76              | 93.98  | 96.52  |
| 6               | 5.08  | 7.62  | 78              | 96.52  | 99.06  |
| 8               | 7.62  | 10.16 | 80              | 99.06  | 101.60 |
| 10              | 10.16 | 12.70 | 82              | 101.60 | 104.14 |
| 12              | 12.70 | 15.24 | 84              | 104.14 | 106.68 |
| 14              | 15.24 | 17.78 | 86              | 106.68 | 109.22 |
| 16              | 17.78 | 20.32 | 88              | 109.22 | 111.76 |
| 18              | 20.32 | 22.86 | 90              | 111.76 | 114.30 |
| 20              | 22.86 | 25.40 | 92              | 114.30 | 116.84 |
| 22              | 25.40 | 27.94 | 94              | 116.84 | 119.38 |
| 24              | 27.94 | 30.48 | 96              | 119.38 | 121.92 |
| 26              | 30.48 | 33.02 | 98              | 121.92 | 124.46 |
| 28              | 33.02 | 35.56 | 100             | 124.46 | 127.00 |
| 30              | 35.56 | 38.10 | 102             | 127.00 | 129.54 |
| 32              | 38.10 | 40.64 | 104             | 129.54 | 132.08 |
| 34              | 40.64 | 43.18 | 106             | 132.08 | 134.62 |
| 36              | 43.18 | 45.72 | 108             | 134.62 | 137.16 |
| 38              | 45.72 | 48.26 | 110             | 137.16 | 139.70 |
| 40              | 48.26 | 50.80 | 112             | 139.70 | 142.24 |
| 42              | 50.80 | 53.34 | 114             | 142.24 | 144.78 |
| 44              | 53.34 | 55.88 | 116             | 144.78 | 147.32 |
| 46              | 55.88 | 58.42 | 118             | 147.32 | 149.86 |
| 48              | 58.42 | 60.96 | 120             | 149.86 | 152.40 |
| 50              | 60.96 | 63.50 | 122             | 152.40 | 154.94 |
| 52              | 63.50 | 66.04 | 124             | 154.94 | 157.48 |
| 54              | 66.04 | 68.58 | 126             | 157.48 | 160.02 |
| 56              | 68.58 | 71.12 | 128             | 160.02 | 162.56 |
| 58              | 71.12 | 73.66 | 130             | 162.56 | 165.10 |
| 60              | 73.66 | 76.20 | 132             | 165.10 | 167.64 |
| 62              | 76.20 | 78.74 | 134             | 167.64 | 170.18 |
| 64              | 78.74 | 81.28 | 136             | 170.18 | 172.72 |
| 66              | 81.28 | 83.82 | 138             | 172.72 | 175.26 |
| 68              | 83.82 | 86.36 | 140             | 175.26 | 177.80 |
| 70              | 86.36 | 88.90 | 142             | 177.80 | 180.34 |
| 72              | 88.90 | 91.44 | 144             | 180.34 | 182.88 |
| 74              | 91.44 | 93.98 |                 |        |        |

Mating connectors: DIC series or HKP series female connector

Z-282 or Z-325 female connector

Others

Wire wrapping

Crimping

Soldering

IDC

Press-in

SMT

Through hole

# Straight through hole type male connector for PCB (Kink-formed contact type) FFC-( )BSM4BR+

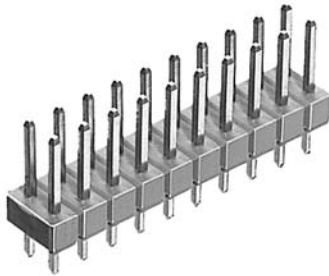
2.54 mm pitch connector

For PCB

Straight Through hole

Contact structure is designed to prevent flux entry during contact soldering.

RoHS



## ● Configuration of product Part No.

FFC- ( ) BSM 4 B R+

① ② ③ ④ ⑤ ⑥

① Series name

② No. of contacts: 4–70

③ Type of contact

BSM: 0.635 square contacts,  
double row type, contact  
structure is designed to  
prevent flux entry during  
contact soldering.

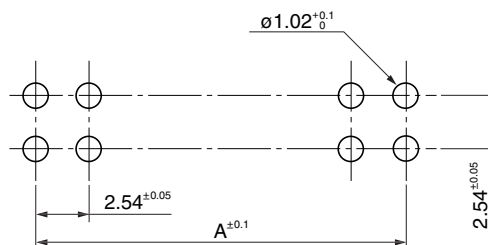
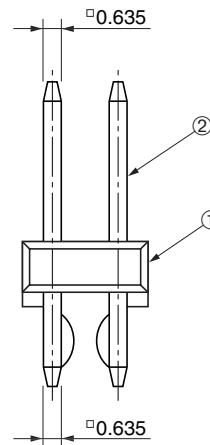
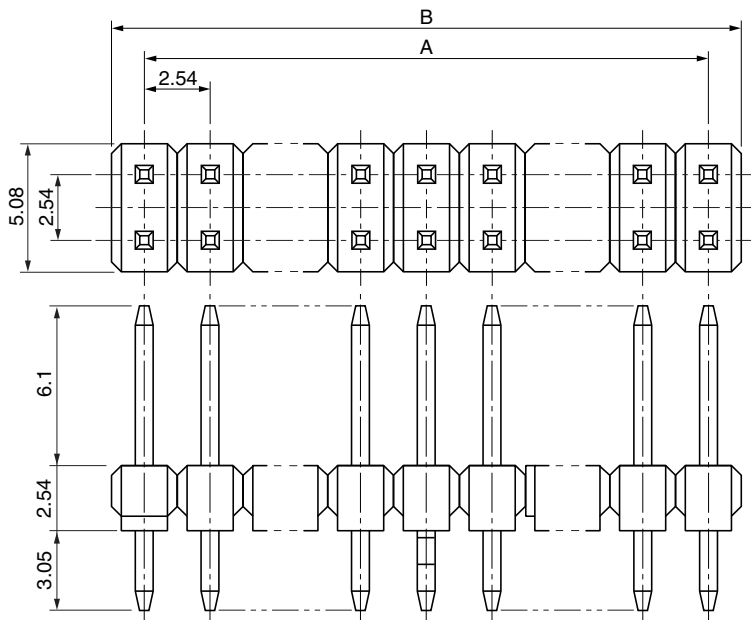
④ Contact plating

4: Gold plate

⑤ Insulator color

B: Black

⑥ Type of through hole portion of contact  
R: Kink-formed contact  
(the left-and right-most contacts)



Recommended PCB layout

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 4               | 2.54  | 5.08  |
| 6               | 5.08  | 7.62  |
| 8               | 7.62  | 10.16 |
| 10              | 10.16 | 12.70 |
| 12              | 12.70 | 15.24 |
| 14              | 15.24 | 17.78 |
| 16              | 17.78 | 20.32 |
| 18              | 20.32 | 22.86 |
| 20              | 22.86 | 25.40 |
| 22              | 25.40 | 27.94 |
| 24              | 27.94 | 30.48 |
| 26              | 30.48 | 33.02 |
| 28              | 33.02 | 35.56 |
| 30              | 35.56 | 38.10 |
| 32              | 38.10 | 40.64 |
| 34              | 40.64 | 43.18 |
| 36              | 43.18 | 45.72 |
| 38              | 45.72 | 48.26 |
| 40              | 48.26 | 50.80 |
| 42              | 50.80 | 53.34 |
| 44              | 53.34 | 55.88 |
| 46              | 55.88 | 58.42 |
| 48              | 58.42 | 60.96 |
| 50              | 60.96 | 63.50 |
| 52              | 63.50 | 66.04 |
| 54              | 66.04 | 68.58 |
| 56              | 68.58 | 71.12 |
| 58              | 71.12 | 73.66 |
| 60              | 73.66 | 76.20 |
| 62              | 76.20 | 78.74 |
| 64              | 78.74 | 81.28 |
| 66              | 81.28 | 83.82 |
| 68              | 83.82 | 86.36 |
| 70              | 86.36 | 88.90 |

Mating connectors: DIC series or HKP series female connector

Z-282 or Z-325 female connector

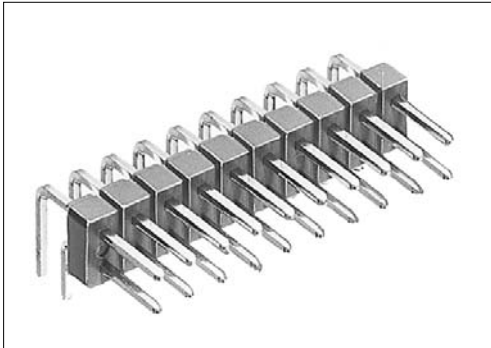
# Right-angle through hole type male connector for PCB FFC-( ) (T) LBMEP( ) ( )

RoHS

2.54 mm pitch connector

For PCB

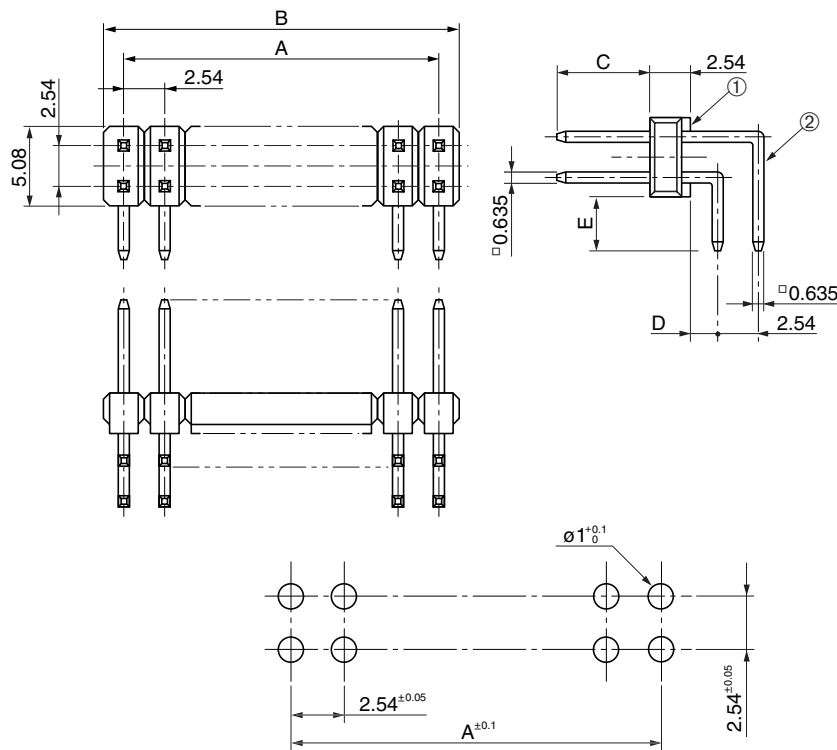
Right-angle Through hole



## ● Configuration of product Part No.

FFC-( ) (T) L BMEP( ) ( )

- |                                                    |                                              |
|----------------------------------------------------|----------------------------------------------|
| ① Series name                                      | ⑤ Type of contact                            |
| ② No. of contacts: 2-144                           | BMEP: 0.635 square contacts, double row type |
| ③ Length of contact                                | ⑥ Contact plating                            |
| Blank: Standard                                    | 1 : Gold plate                               |
| T, T1-T7 (Refer to the following dimension table.) | 21: Tin copper plate                         |
| ④ Type of contact                                  | ⑦ Insulator color                            |
| L: Right-angle                                     | Blank: Blue                                  |
|                                                    | B : Black                                    |



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     | No. of contacts | A      | B      |
|-----------------|-------|-------|-----------------|--------|--------|
| 2               | —     | 2.54  | 74              | 91.44  | 93.98  |
| 4               | 2.54  | 5.08  | 76              | 93.98  | 96.52  |
| 6               | 5.08  | 7.62  | 78              | 96.52  | 99.06  |
| 8               | 7.62  | 10.16 | 80              | 99.06  | 101.60 |
| 10              | 10.16 | 12.70 | 82              | 101.60 | 104.14 |
| 12              | 12.70 | 15.24 | 84              | 104.14 | 106.68 |
| 14              | 15.24 | 17.78 | 86              | 106.68 | 109.22 |
| 16              | 17.78 | 20.32 | 88              | 109.22 | 111.76 |
| 18              | 20.32 | 22.86 | 90              | 111.76 | 114.30 |
| 20              | 22.86 | 25.40 | 92              | 114.30 | 116.84 |
| 22              | 25.40 | 27.94 | 94              | 116.84 | 119.38 |
| 24              | 27.94 | 30.48 | 96              | 119.38 | 121.92 |
| 26              | 30.48 | 33.02 | 98              | 121.92 | 124.46 |
| 28              | 33.02 | 35.56 | 100             | 124.46 | 127.00 |
| 30              | 35.56 | 38.10 | 102             | 127.00 | 129.54 |
| 32              | 38.10 | 40.64 | 104             | 129.54 | 132.08 |
| 34              | 40.64 | 43.18 | 106             | 132.08 | 134.62 |
| 36              | 43.18 | 45.72 | 108             | 134.62 | 137.16 |
| 38              | 45.72 | 48.26 | 110             | 137.16 | 139.70 |
| 40              | 48.26 | 50.80 | 112             | 139.70 | 142.24 |
| 42              | 50.80 | 53.34 | 114             | 142.24 | 144.78 |
| 44              | 53.34 | 55.88 | 116             | 144.78 | 147.32 |
| 46              | 55.88 | 58.42 | 118             | 147.32 | 149.86 |
| 48              | 58.42 | 60.96 | 120             | 149.86 | 152.40 |
| 50              | 60.96 | 63.50 | 122             | 152.40 | 154.94 |
| 52              | 63.50 | 66.04 | 124             | 154.94 | 157.48 |
| 54              | 66.04 | 68.58 | 126             | 157.48 | 160.02 |
| 56              | 68.58 | 71.12 | 128             | 160.02 | 162.56 |
| 58              | 71.12 | 73.66 | 130             | 162.56 | 165.10 |
| 60              | 73.66 | 76.20 | 132             | 165.10 | 167.64 |
| 62              | 76.20 | 78.74 | 134             | 167.64 | 170.18 |
| 64              | 78.74 | 81.28 | 136             | 170.18 | 172.72 |
| 66              | 81.28 | 83.82 | 138             | 172.72 | 175.26 |
| 68              | 83.82 | 86.36 | 140             | 175.26 | 177.80 |
| 70              | 86.36 | 88.90 | 142             | 177.80 | 180.34 |
| 72              | 88.90 | 91.44 | 144             | 180.34 | 182.88 |

## ● Components

|             |
|-------------|
| ① Insulator |
| ② Contact   |

| Part No.                  | C    | D    | E    |
|---------------------------|------|------|------|
| FFC-(2~144)LBMEP( ) ( )   | 6    | 1.27 | 3.54 |
| FFC-(2~144)TLBMEP( ) ( )  | 5.82 | 1.4  | 2.57 |
| FFC-(2~144)T1LBMEP( ) ( ) | 7    | 1.27 | 3.54 |
| FFC-(2~144)T2LBMEP( ) ( ) | 6    |      | 2.57 |
| FFC-(2~144)T3LBMEP( ) ( ) | 5.82 |      | 7.65 |
| FFC-(2~144)T4LBMEP( ) ( ) | 3.54 |      | 3.54 |
| FFC-(2~144)T5LBMEP( ) ( ) | 5.72 | 1.4  | 5.1  |
| FFC-(2~144)T6LBMEP( ) ( ) | 5    | 1.27 | 3.45 |
| FFC-(2~144)T7LBMEP( ) ( ) | 9.5  |      | 3    |

Mating connectors: DIC series or HKP series female connector

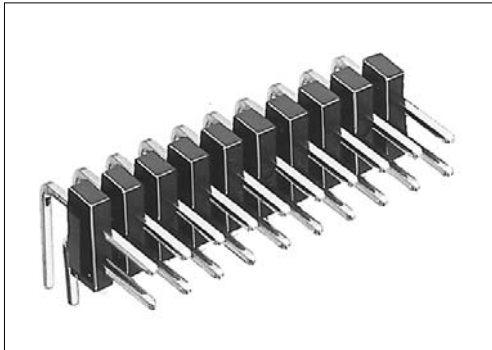
# Right-angle through hole type male connector for PCB (Wide insulator type) FFC-( ) (T ) LBW( ) ( )

RoHS

2.54 mm pitch connector

For PCB

Right-angle Through hole

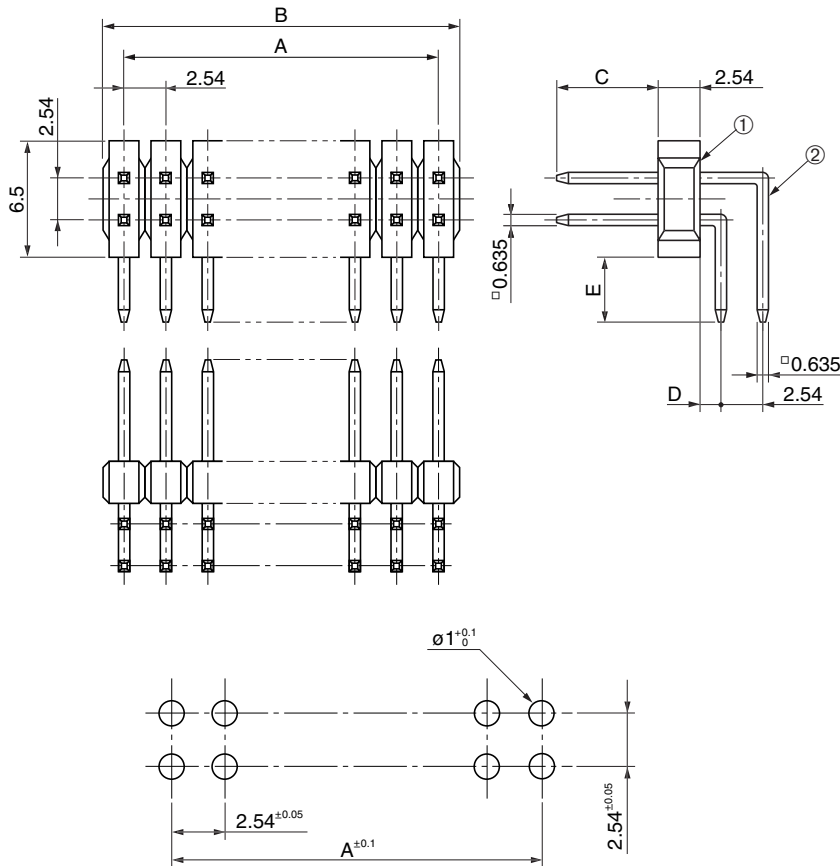


## ● Configuration of product Part No.

FFC- ( ) (T ) L BW ( ) ( )

① ② ③ ④ ⑤ ⑥ ⑦

- ① Series name
- ② No. of contacts: 2-70
- ③ Length of contact  
Blank: Standard  
T, T1-T4 (Refer to the following dimension table.)
- ④ Type of contact  
L: Right-angle
- ⑤ Type of contact  
BW: 0.635 square contacts, double row type, wide insulator type
- ⑥ Contact plating  
1 : Gold plate  
21: Tin copper plate
- ⑦ Insulator color  
Blank: Blue  
B : Black



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 2               | —     | 2.54  |
| 4               | 2.54  | 5.08  |
| 6               | 5.08  | 7.62  |
| 8               | 7.62  | 10.16 |
| 10              | 10.16 | 12.70 |
| 12              | 12.70 | 15.24 |
| 14              | 15.24 | 17.78 |
| 16              | 17.78 | 20.32 |
| 18              | 20.32 | 22.86 |
| 20              | 22.86 | 25.40 |
| 22              | 25.40 | 27.94 |
| 24              | 27.94 | 30.48 |
| 26              | 30.48 | 33.02 |
| 28              | 33.02 | 35.56 |
| 30              | 35.56 | 38.10 |
| 32              | 38.10 | 40.64 |
| 34              | 40.64 | 43.18 |
| 36              | 43.18 | 45.72 |
| 38              | 45.72 | 48.26 |
| 40              | 48.26 | 50.80 |
| 42              | 50.80 | 53.34 |
| 44              | 53.34 | 55.88 |
| 46              | 55.88 | 58.42 |
| 48              | 58.42 | 60.96 |
| 50              | 60.96 | 63.50 |
| 52              | 63.50 | 66.04 |
| 54              | 66.04 | 68.58 |
| 56              | 68.58 | 71.12 |
| 58              | 71.12 | 73.66 |
| 60              | 73.66 | 76.20 |
| 62              | 76.20 | 78.74 |
| 64              | 78.74 | 81.28 |
| 66              | 81.28 | 83.82 |
| 68              | 83.82 | 86.36 |
| 70              | 86.36 | 88.90 |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

| Part No.               | C   | D    | E    |
|------------------------|-----|------|------|
| FFC-(2~70)LBW( ) ( )   | 6   | 1.27 | 3.54 |
| FFC-(2~70)TLBW( ) ( )  | 7   |      | 12   |
| FFC-(2~70)T1LBW( ) ( ) | 8.2 |      | 2.8  |
| FFC-(2~70)T2LBW( ) ( ) | 6.1 | 1.52 | 3.05 |
| FFC-(2~70)T3LBW( ) ( ) | 8.2 | 1.27 | 3.54 |
| FFC-(2~70)T4LBW( ) ( ) |     |      |      |

Mating connectors: DIC series or HKP series female connector

# Straight through hole type male connector for PCB

## FFC-( )NSM( )( )

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS

Contact structure is designed to prevent flux entry during contact soldering.

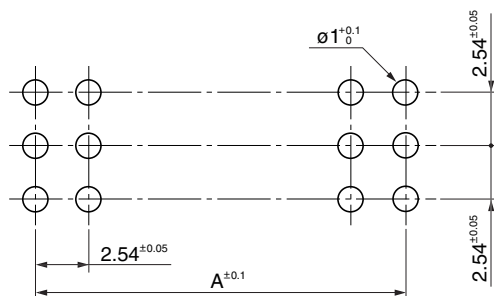
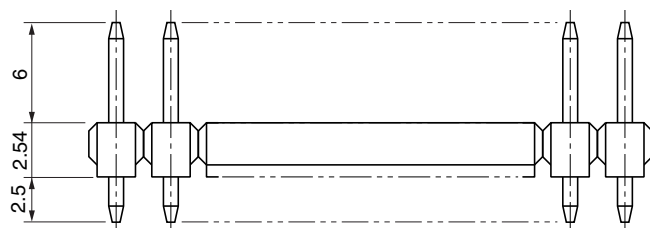
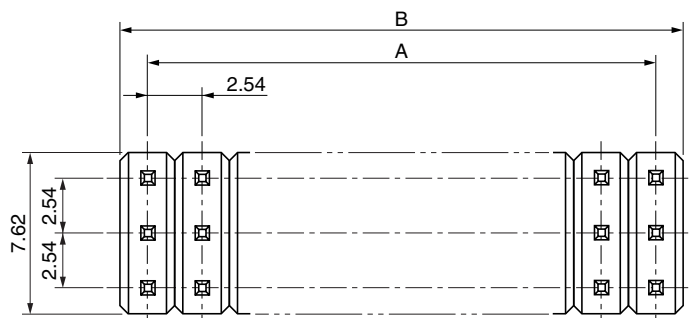


## ● Configuration of product Part No.

FFC-( ) NSM( )( )

- |               |                          |                                                                                                                            |                   |   |
|---------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------|---|
| ①             | ②                        | ③                                                                                                                          | ④                 | ⑤ |
| ① Series name | ② No. of contacts: 3–120 | ③ Type of contact                                                                                                          | ④ Contact plating |   |
|               |                          | NSM: 0.635 square contacts, triple row type, contact structure is designed to prevent flux entry during contact soldering. | 1 : Gold plate    |   |
|               |                          |                                                                                                                            | 22: Tin plate     |   |
|               |                          |                                                                                                                            | ⑤ Insulator color |   |
|               |                          |                                                                                                                            | Blank: Blue       |   |
|               |                          |                                                                                                                            | B : Black         |   |

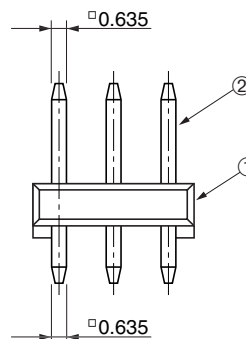
## ● Dimensions



Recommended PCB layout

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |



Note: Contact structure is designed to prevent flux entry during contact soldering.

| No. of contacts | A     | B      |
|-----------------|-------|--------|
| 3               | —     | 2.54   |
| 6               | 2.54  | 5.08   |
| 9               | 5.08  | 7.62   |
| 12              | 7.62  | 10.16  |
| 15              | 10.16 | 12.70  |
| 18              | 12.70 | 15.24  |
| 21              | 15.24 | 17.78  |
| 24              | 17.78 | 20.32  |
| 27              | 20.32 | 22.86  |
| 30              | 22.86 | 25.40  |
| 33              | 25.40 | 27.94  |
| 36              | 27.94 | 30.48  |
| 39              | 30.48 | 33.02  |
| 42              | 33.02 | 35.56  |
| 45              | 35.56 | 38.10  |
| 48              | 38.10 | 40.64  |
| 51              | 40.64 | 43.18  |
| 54              | 43.18 | 45.72  |
| 57              | 45.72 | 48.26  |
| 60              | 48.26 | 50.80  |
| 63              | 50.80 | 53.34  |
| 66              | 53.34 | 55.88  |
| 69              | 55.88 | 58.42  |
| 72              | 58.42 | 60.96  |
| 75              | 60.96 | 63.50  |
| 78              | 63.50 | 66.04  |
| 81              | 66.04 | 68.58  |
| 84              | 68.58 | 71.12  |
| 87              | 71.12 | 73.66  |
| 90              | 73.66 | 76.20  |
| 93              | 76.20 | 78.74  |
| 96              | 78.74 | 81.28  |
| 99              | 81.28 | 83.82  |
| 102             | 83.82 | 86.36  |
| 105             | 86.36 | 88.90  |
| 108             | 88.90 | 91.44  |
| 111             | 91.44 | 93.98  |
| 114             | 93.98 | 96.52  |
| 117             | 96.52 | 99.06  |
| 120             | 99.06 | 101.60 |

Mating connectors: DIC series female connector

# Straight through hole type female connector for PCB

## Z-220-( )FD

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS



## ● Configuration of product Part No.

Z-220-( )FD

① ② ③

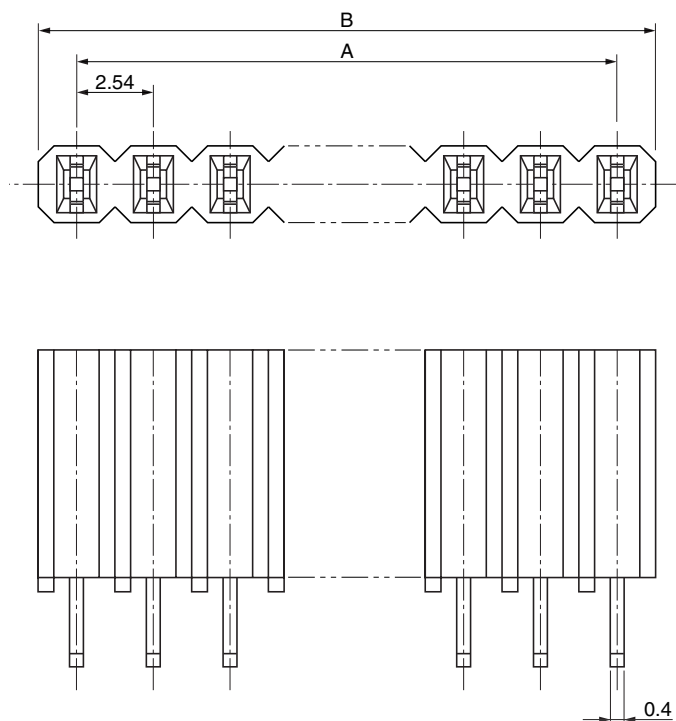
① Series name

② No. of contacts: 1–34

③ Type of contact

FD: Straight through hole type, female

Contact plating: Gold plate



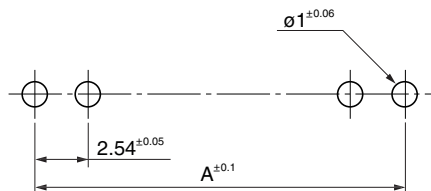
## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 1               | —     | 2.54  |
| 2               | 2.54  | 5.08  |
| 3               | 5.08  | 7.62  |
| 4               | 7.62  | 10.16 |
| 5               | 10.16 | 12.70 |
| 6               | 12.70 | 15.24 |
| 7               | 15.24 | 17.78 |
| 8               | 17.78 | 20.32 |
| 9               | 20.32 | 22.86 |
| 10              | 22.86 | 25.40 |
| 11              | 25.40 | 27.94 |
| 12              | 27.94 | 30.48 |
| 13              | 30.48 | 33.02 |
| 14              | 33.02 | 35.56 |
| 15              | 35.56 | 38.10 |
| 16              | 38.10 | 40.64 |
| 17              | 40.64 | 43.18 |
| 18              | 43.18 | 45.72 |
| 19              | 45.72 | 48.26 |
| 20              | 48.26 | 50.80 |
| 21              | 50.80 | 53.34 |
| 22              | 53.34 | 55.88 |
| 23              | 55.88 | 58.42 |
| 24              | 58.42 | 60.96 |
| 25              | 60.96 | 63.50 |
| 26              | 63.50 | 66.04 |
| 27              | 66.04 | 68.58 |
| 28              | 68.58 | 71.12 |
| 29              | 71.12 | 73.66 |
| 30              | 73.66 | 76.20 |
| 31              | 76.20 | 78.74 |
| 32              | 78.74 | 81.28 |
| 33              | 81.28 | 83.82 |
| 34              | 83.82 | 86.36 |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

## Recommended PCB layout



Mating connectors: FFC series male connector (Cross section of contact: 0.635 mm square, Length of contact: 5 mm)

FFC-( )T9AMEP1(B) or FFC-( )T19LAMEP1(B) male connector

# Straight through hole type female connector for PCB

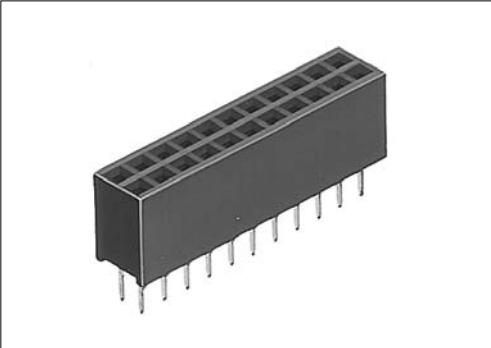
## Z-325-( )FD2

RoHS

2.54 mm pitch connector

For PCB

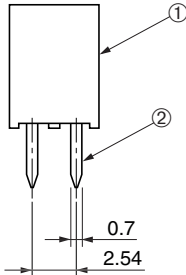
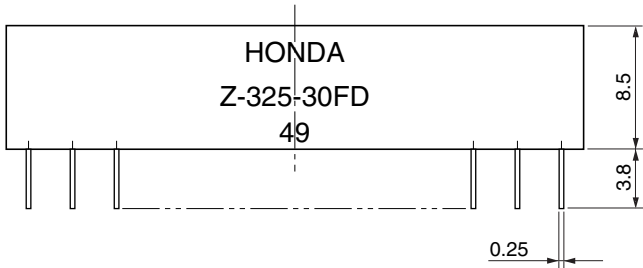
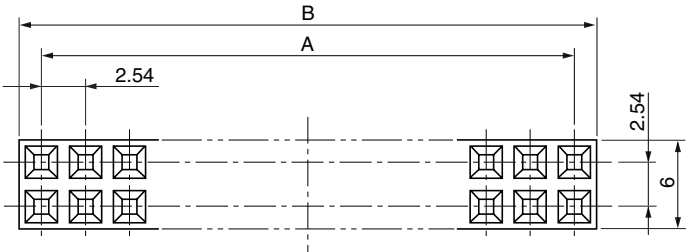
Straight Through hole



### ● Configuration of product Part No.

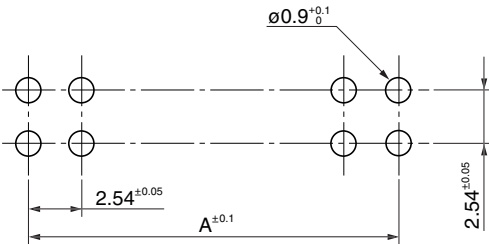
**Z-325- ( ) FD 2**

- ① Series name  
② No. of contacts: 4–50  
③ Type of contact  
FD: Straight through hole type, female  
④ Contact plating  
Contact surface; Gold plate  
Through hole portion; Tin plate



### ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 4               | 2.54  | 5.74  |
| 6               | 5.08  | 8.28  |
| 8               | 7.62  | 10.82 |
| 10              | 10.16 | 13.36 |
| 12              | 12.7  | 15.9  |
| 14              | 15.24 | 18.44 |
| 16              | 17.78 | 20.98 |
| 18              | 20.32 | 23.52 |
| 20              | 22.86 | 26.06 |
| 22              | 25.4  | 28.6  |
| 24              | 27.94 | 31.14 |
| 26              | 30.48 | 33.68 |
| 28              | 33.02 | 36.22 |
| 30              | 35.56 | 38.76 |
| 32              | 38.1  | 41.3  |
| 34              | 40.64 | 43.84 |
| 36              | 43.18 | 46.38 |
| 38              | 45.72 | 48.92 |
| 40              | 48.26 | 51.46 |
| 42              | 50.8  | 54    |
| 44              | 53.34 | 56.54 |
| 46              | 55.88 | 59.08 |
| 48              | 58.42 | 61.62 |
| 50              | 60.96 | 64.16 |



### ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Recommended PCB layout

Mating connectors: FFC series or HKP series male connector (Cross section of contact: 0.635 mm square, Length of contact: 6 mm)

# Straight through hole type female connector for PCB

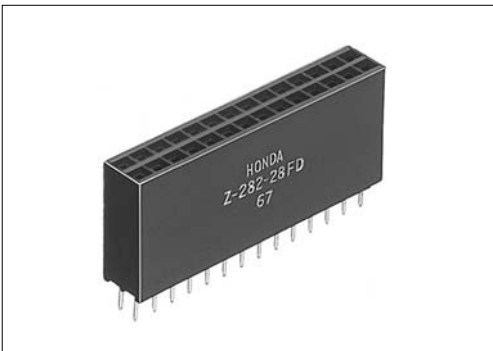
## Z-282-( )FD+

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS



### ● Configuration of product Part No.

**Z-282- ( ) FD+**

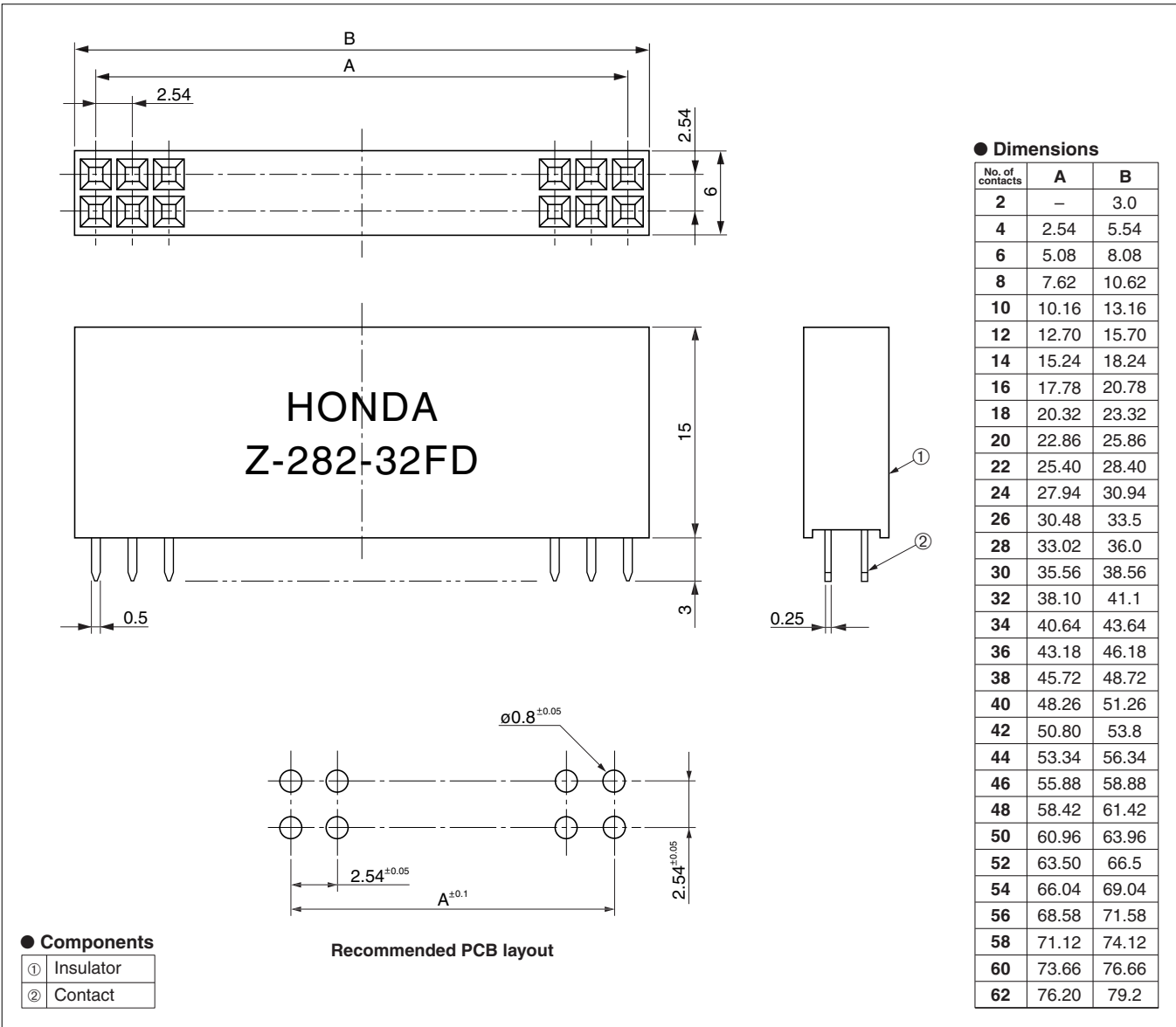
①      ②      ③

① Series name

② No. of contacts: 2–62

③ Type of contact

FD: Straight through hole type, female



Mating connectors: FFC series or HKP series male connector (Cross section of contact: 0.635 mm square, Length of contact: 6–7 mm)

# Straight through hole type female connector for PCB (round contact type) Z-279-( )FD

RoHS

2.54 mm pitch connector

For PCB

Straight Through hole



## ● Configuration of product Part No.

**Z-279-( ) FD**

① ② ③

① Series name

② No. of contacts: 2-72

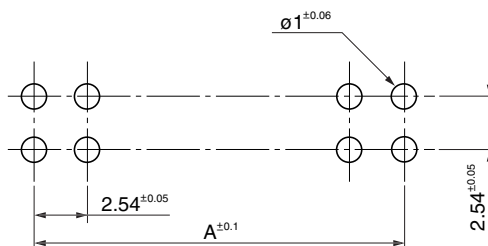
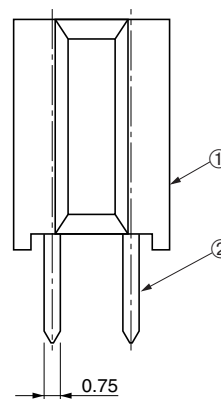
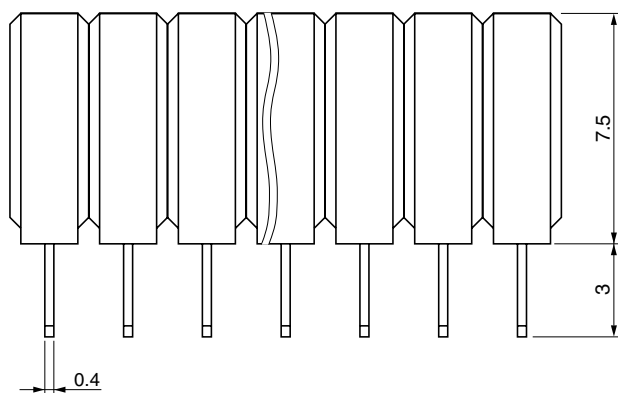
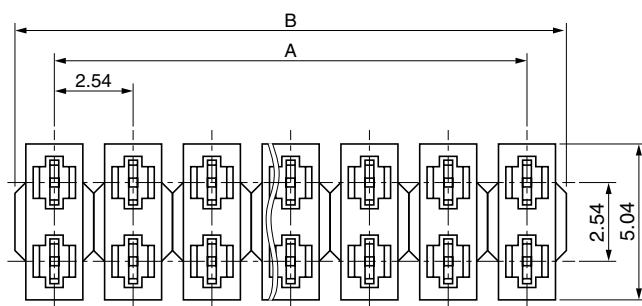
③ Type of contact

FD: Straight through hole type, female

Contact plating: Gold plate

## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 2               | —     | 2.54  |
| 4               | 2.54  | 5.08  |
| 6               | 5.08  | 7.62  |
| 8               | 7.62  | 10.16 |
| 10              | 10.16 | 12.70 |
| 12              | 12.70 | 15.24 |
| 14              | 15.24 | 17.78 |
| 16              | 17.78 | 20.32 |
| 18              | 20.32 | 22.86 |
| 20              | 22.86 | 25.40 |
| 22              | 25.40 | 27.94 |
| 24              | 27.94 | 30.48 |
| 26              | 30.48 | 33.02 |
| 28              | 33.02 | 35.56 |
| 30              | 35.56 | 38.10 |
| 32              | 38.10 | 40.64 |
| 34              | 40.64 | 43.18 |
| 36              | 43.18 | 45.72 |
| 38              | 45.72 | 48.26 |
| 40              | 48.26 | 50.80 |
| 42              | 50.80 | 53.34 |
| 44              | 53.34 | 55.88 |
| 46              | 55.88 | 58.42 |
| 48              | 58.42 | 60.96 |
| 50              | 60.96 | 63.50 |
| 52              | 63.50 | 66.04 |
| 54              | 66.04 | 68.58 |
| 56              | 68.58 | 71.12 |
| 58              | 71.12 | 73.66 |
| 60              | 73.66 | 76.20 |
| 62              | 76.20 | 78.74 |
| 64              | 78.74 | 81.28 |
| 66              | 81.28 | 83.82 |
| 68              | 83.82 | 86.36 |
| 70              | 86.36 | 88.90 |
| 72              | 88.90 | 91.44 |



Recommended PCB layout

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Mating connectors: FFC series male connector (Cross section of contact: 0.64 mm diameter, Length of contact: 5 mm)

FFC-( )THM1(B) or FFC-( )TDM1(B) male connector

Others

Wire  
wrapping

Crimping

Soldering

IDC

Press-in

SMT

Through  
hole

# Straight through hole type female connector for PCB (Square contact type) Z-279S-( )FD

2.54 mm pitch connector

For PCB

Straight Through hole

RoHS



## ● Configuration of product Part No.

**Z-279S-( ) FD**

① ② ③

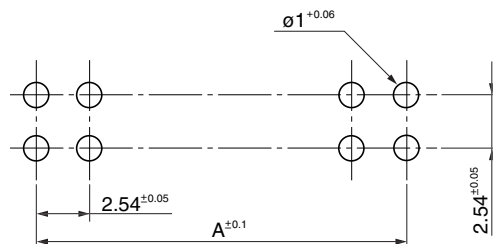
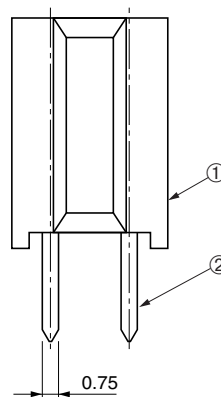
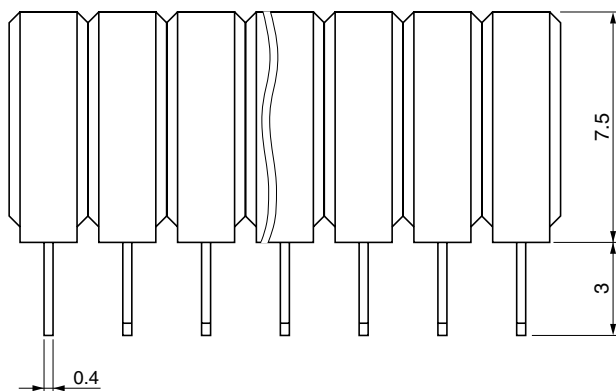
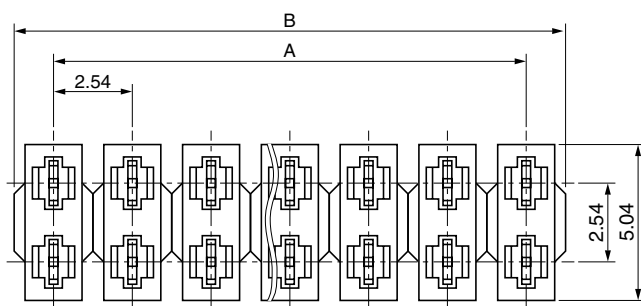
① Series name

② No. of contacts: 2-72

③ Type of contact

FD: Straight through hole type, female

Contact plating : Gold plate



Recommended PCB layout

## ● Dimensions

| No. of contacts | A     | B     |
|-----------------|-------|-------|
| 2               | —     | 2.54  |
| 4               | 2.54  | 5.08  |
| 6               | 5.08  | 7.62  |
| 8               | 7.62  | 10.16 |
| 10              | 10.16 | 12.70 |
| 12              | 12.70 | 15.24 |
| 14              | 15.24 | 17.78 |
| 16              | 17.78 | 20.32 |
| 18              | 20.32 | 22.86 |
| 20              | 22.86 | 25.40 |
| 22              | 25.40 | 27.94 |
| 24              | 27.94 | 30.48 |
| 26              | 30.48 | 33.02 |
| 28              | 33.02 | 35.56 |
| 30              | 35.56 | 38.10 |
| 32              | 38.10 | 40.64 |
| 34              | 40.64 | 43.18 |
| 36              | 43.18 | 45.72 |
| 38              | 45.72 | 48.26 |
| 40              | 48.26 | 50.80 |
| 42              | 50.80 | 53.34 |
| 44              | 53.34 | 55.88 |
| 46              | 55.88 | 58.42 |
| 48              | 58.42 | 60.96 |
| 50              | 60.96 | 63.50 |
| 52              | 63.50 | 66.04 |
| 54              | 66.04 | 68.58 |
| 56              | 68.58 | 71.12 |
| 58              | 71.12 | 73.66 |
| 60              | 73.66 | 76.20 |
| 62              | 76.20 | 78.74 |
| 64              | 78.74 | 81.28 |
| 66              | 81.28 | 83.82 |
| 68              | 83.82 | 86.36 |
| 70              | 86.36 | 88.90 |
| 72              | 88.90 | 91.44 |

## ● Components

|   |           |
|---|-----------|
| ① | Insulator |
| ② | Contact   |

Mating connectors: FFC series male connector (Cross section of contact: 0.635 mm square, Length of contact: 5 mm)

FFC-( )T9BMEP1(B) or FFC-( )T19LBMEP1(B) male connector