

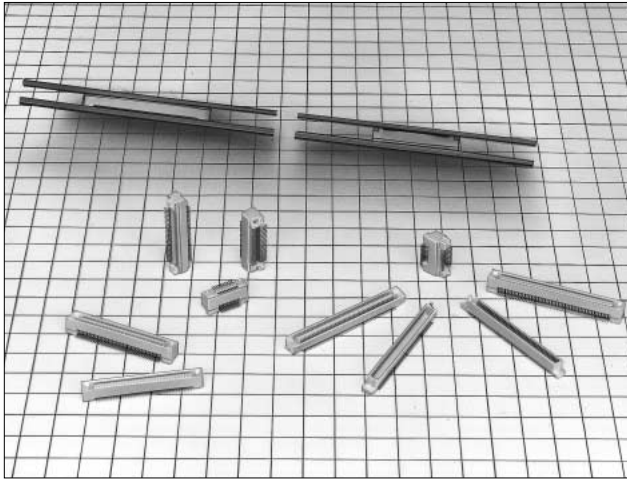


**THE DATASHEET OF
FX6-40S-0.8SV2**

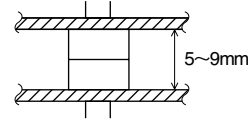


0.8mm Pitch Stacking Height 5 to 9mm Connector

FX6 Series



Stacking Height: 5 to 9mm



Mounting area 50% OFF, compared with the half pitch connector



Half pitch connector
(FX2 series)



FX6 series
(If compared with 60 contacts)

■Features

1. Stacking Height 5 to 9mm

The board to board stacking height can be set at every millimeter between 5 and 9mm.

2. Effective Contact Length 1.7mm

Despite the low profile type connector, the connector has the 1.7mm long effective contact length and provides a margin sufficient to contact.

3. Mating Guide

The self-alignment for mating action exhibits a high guide level at ± 1 mm, and makes the mating process easier by providing the guide rib.

4. Automatic Mounting

The standard packaging specification specifies the stick package, considering the automatic mount, while the emboss package can also correspond to the connector with less than 80 contacts. (However, the product is limited to 80 contacts.)

5. SMT Coplanarity

The lead coplanarity on the SMT soldered area is maintained with the high accuracy of less than 0.1mm.

■Applications

Note PC, business equipments such as handy terminals, and other equipment which require miniaturization or light-weight.

■Product Specifications

Rating	Current rating 0.5A	Operating Temperature Range -55°C to +85°C Note 1.	Storage Temperature Range -10°C to +60°C Note 2.
	Voltage rating 100V AC	Operating Humidity Range 40% to 80%	Storage Humidity Range 40% to 70%

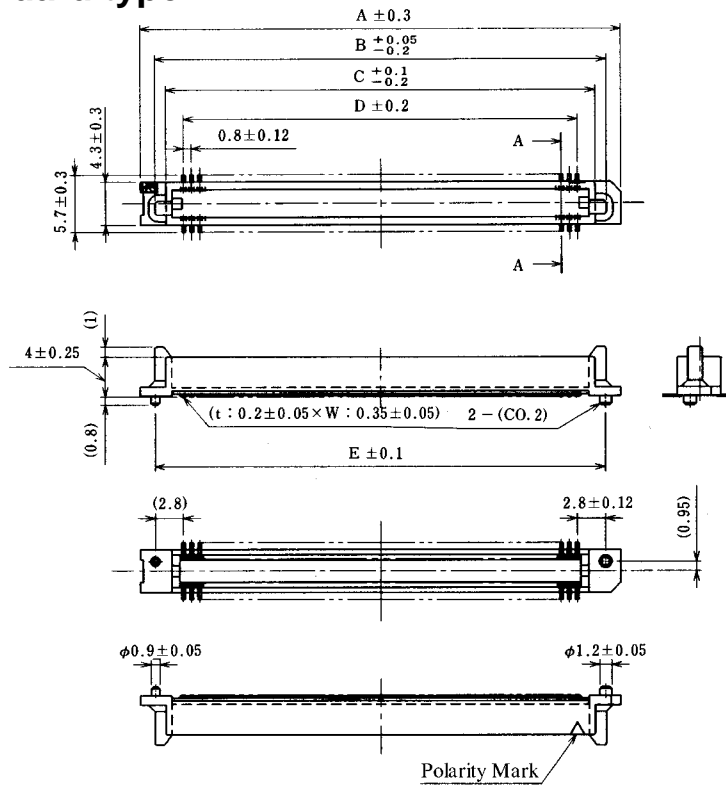
Item	Specification	Condition
1. Insulation Resistance	100M ohms min	250V DC
2. Withstanding voltage	No flashover or insulation breakdown.	300V AC/1 minute
3. Contact Resistance	40m ohms max.	100mA
4. Vibration	No electrical discontinuity of 1 μ s or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.
5. Humidity (Steady state)	Contact resistance: 50m ohms max. Insulation resistance: 100m 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: 100m ohms min.	(-55°C: 30 minutes 15 to 35°C: 2 to 3 minutes 85°C: 30 minutes 15 to 35°C: 2 to 3minutes)5 cycles
7. Operating Life	Contact resistance: 50m ohms max.	100 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.

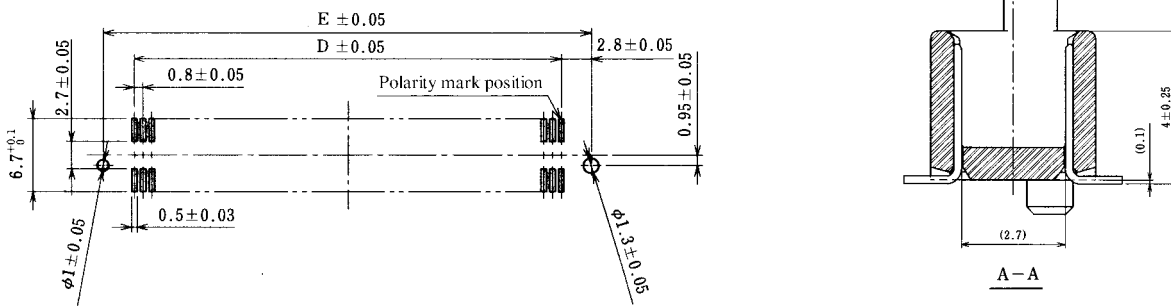
Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

With Boss Type

Header-Stacking Height: Standard type



PCB mounting pattern



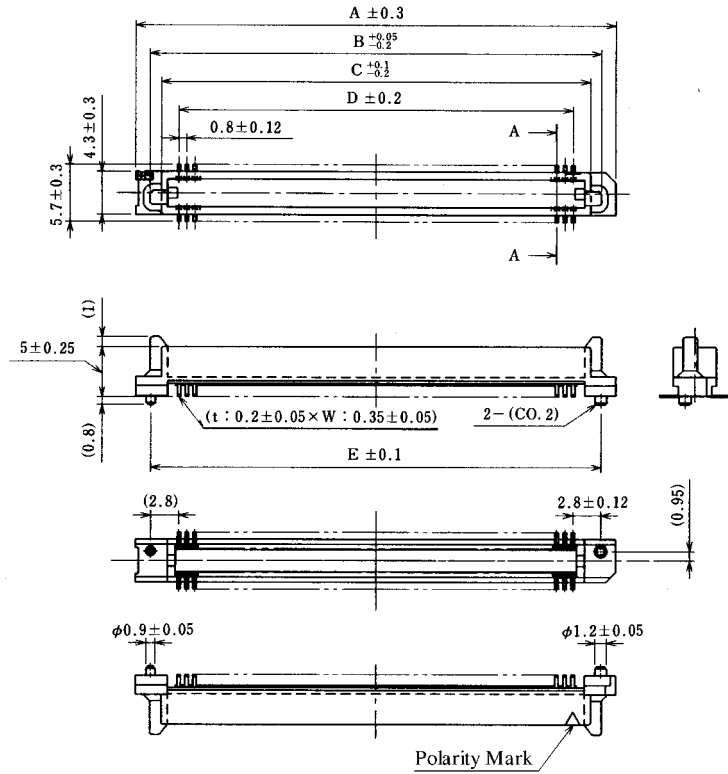
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E
FX6- 20P-0.8SV	576-0001-3	20	15.8	12.9	10.7	7.2	12.8
FX6- 40P-0.8SV	576-0003-9	40	23.8	20.9	18.7	15.2	20.8
FX6- 50P-0.8SV	576-0004-1	50	27.8	24.9	22.7	19.2	24.8
FX6- 60P-0.8SV	576-0005-4	60	31.8	28.9	26.7	23.2	28.8
FX6- 80P-0.8SV	576-0007-0	80	39.8	36.9	34.7	31.2	36.8
FX6-100P-0.8SV	576-0008-2	100	47.8	44.9	42.7	39.2	44.8

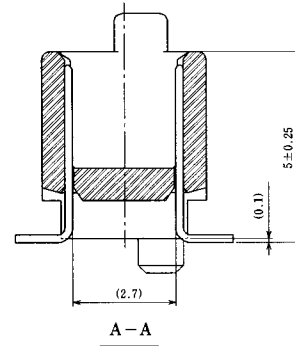
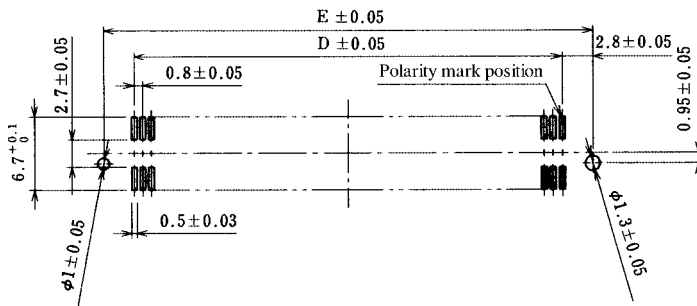
Note: Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer.
Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces).
(Refer to the delivery form item on page A214 for details.)

With Boss Type

Header-Stacking Height: Standard type



PCB mounting pattern



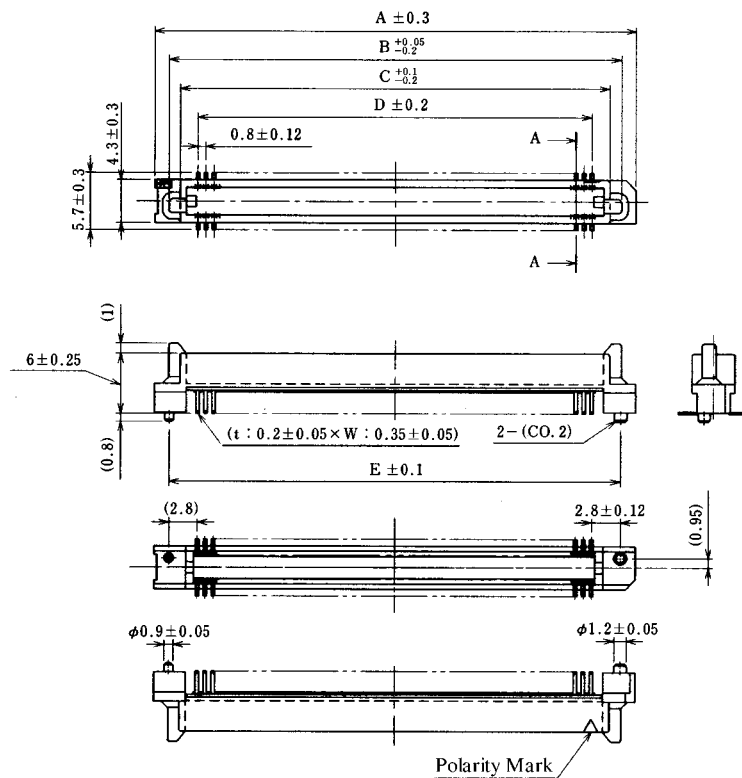
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E
FX6- 20P-0.8SV1	576-0021-0	20	15.8	12.9	10.7	7.2	12.8
FX6- 40P-0.8SV1	576-0023-6	40	23.8	20.9	18.7	15.2	20.8
FX6- 50P-0.8SV1	576-0024-9	50	27.8	24.9	22.7	19.2	24.8
FX6- 60P-0.8SV1	576-0025-1	60	31.8	28.9	26.7	23.2	28.8
FX6- 80P-0.8SV1	576-0027-7	80	39.8	36.9	34.7	31.2	36.8
FX6-100P-0.8SV1	576-0028-0	100	47.8	44.9	42.7	39.2	44.8

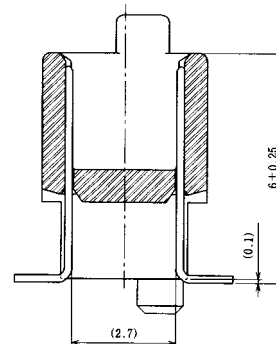
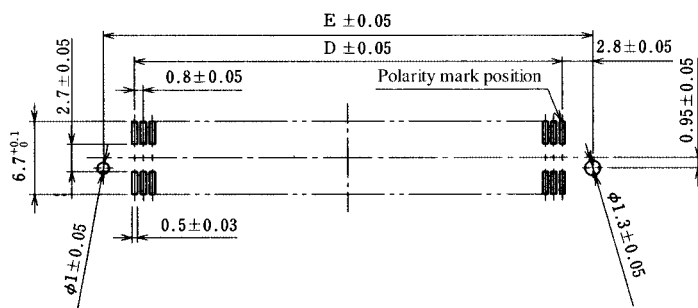
Note: Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

With Boss Type

Header-Stacking Height: Standard+2mm type



PCB mounting pattern



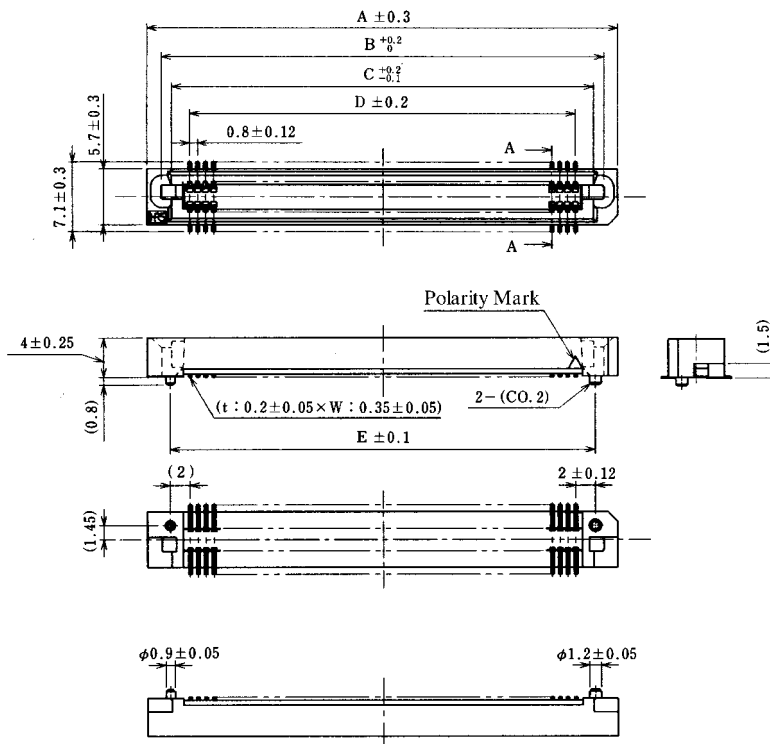
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E
FX6- 20P-0.8SV2	576-0041-8	20	15.8	12.9	10.7	7.2	12.8
FX6- 40P-0.8SV2	576-0043-3	40	23.8	20.9	18.7	15.2	20.8
FX6- 50P-0.8SV2	576-0044-6	50	27.8	24.9	22.7	19.2	24.8
FX6- 60P-0.8SV2	576-0045-9	60	31.8	28.9	26.7	23.2	28.8
FX6- 80P-0.8SV2	576-0047-4	80	39.8	36.9	34.7	31.2	36.8
FX6-100P-0.8SV2	576-0048-7	100	47.8	44.9	42.7	39.2	44.8

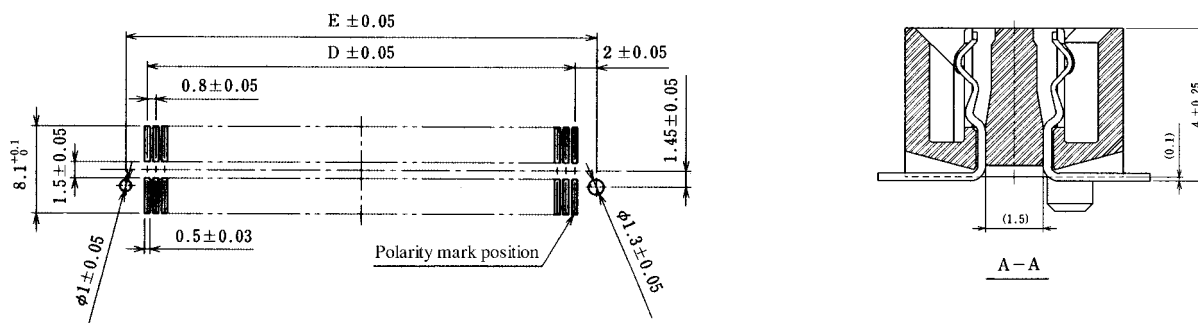
Note: Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

With Boss Type

Receptacle-Stacking Height: Standard type



PCB mounting pattern



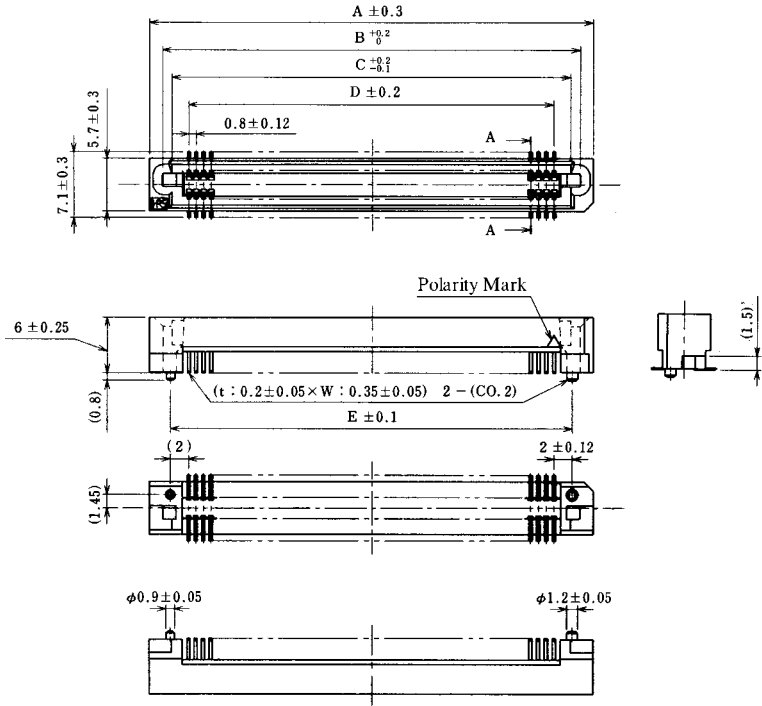
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E
FX6- 20S-0.8SV	576-0101-8	20	15.8	12.95	10.9	7.2	11.2
FX6- 40S-0.8SV	576-0103-3	40	23.8	20.95	18.9	15.2	19.2
FX6- 50S-0.8SV	576-0104-6	50	27.8	24.95	22.9	19.2	23.2
FX6- 60S-0.8SV	576-0105-9	60	31.8	28.95	26.9	23.2	27.2
FX6- 80S-0.8SV	576-0107-4	80	39.8	36.95	34.9	31.2	35.2
FX6-100S-0.8SV	576-0108-7	100	47.8	44.95	42.9	39.2	43.2

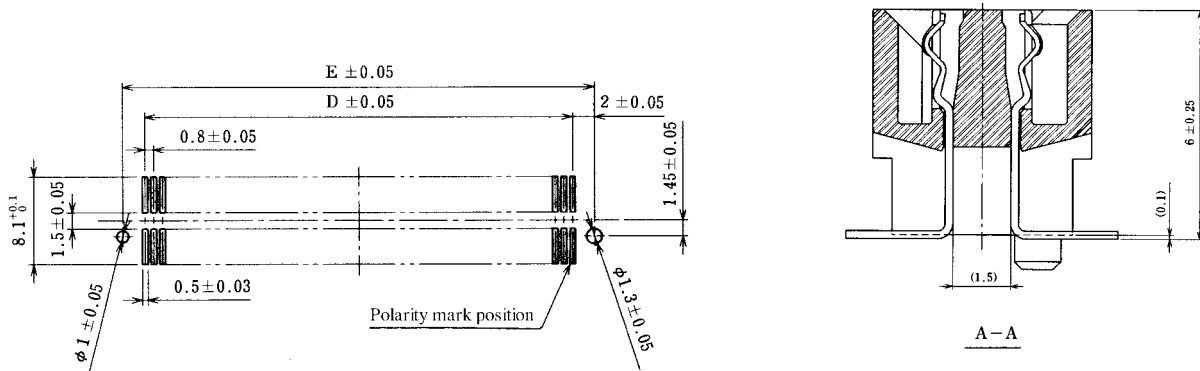
Note: Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

With Boss Type

■ Receptacle-Stacking Height: Standard+2mm type



◆ PCB mounting pattern



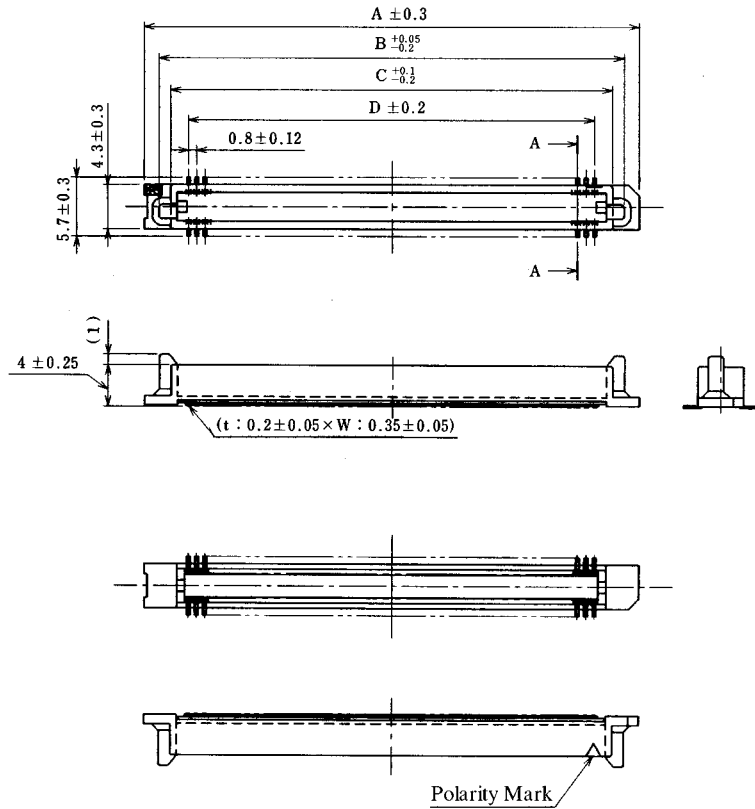
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E
FX6- 20S-0.8SV2	576-0121-5	20	15.8	12.95	10.9	7.2	11.2
FX6- 40S-0.8SV2	576-0123-0	40	23.8	20.95	18.9	15.2	19.2
FX6- 50S-0.8SV2	576-0124-3	50	27.8	24.95	22.9	19.2	23.2
FX6- 60S-0.8SV2	576-0125-6	60	31.8	28.95	26.9	23.2	27.2
FX6- 80S-0.8SV2	576-0127-1	80	39.8	36.95	34.9	31.2	35.2
FX6-100S-0.8SV2	576-0128-4	100	47.8	44.95	42.9	39.2	43.2

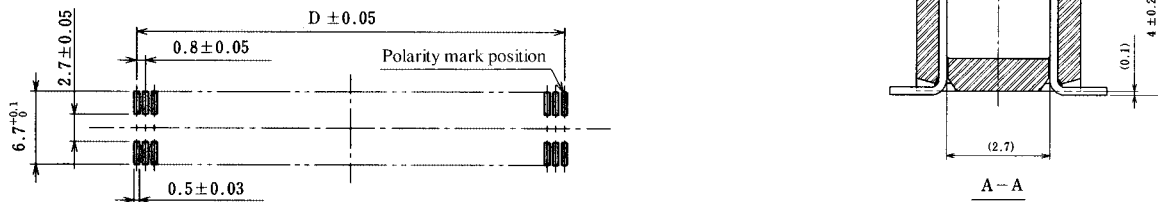
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 Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces).
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Without Boss Type

Header-Stacking Height: Standard type



PCB mounting pattern



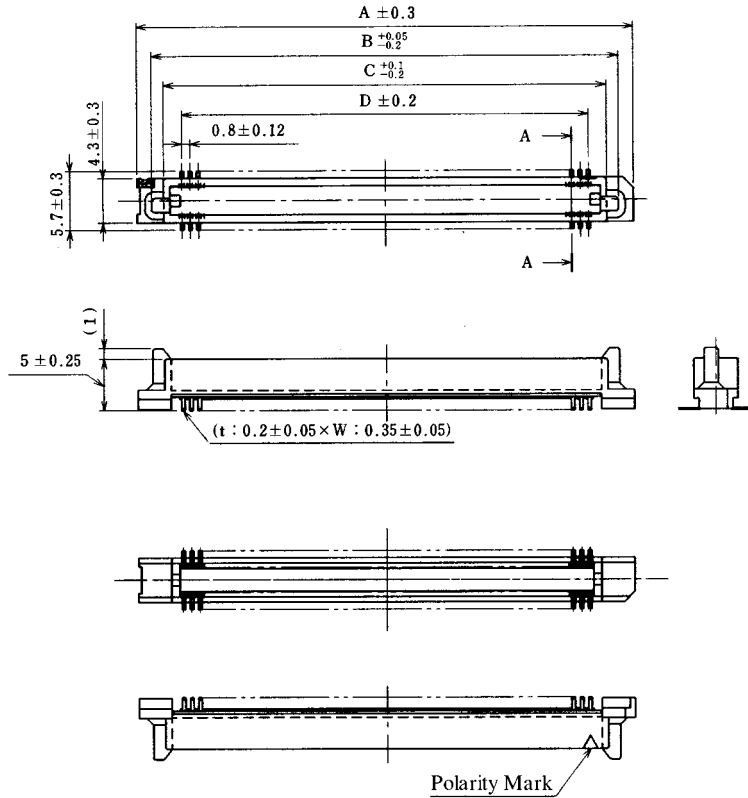
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D
FX6A- 20P-0.8SV	576-0201-2	20	15.8	12.9	10.7	7.2
FX6A- 40P-0.8SV	576-0203-8	40	23.8	20.9	18.7	15.2
FX6A- 50P-0.8SV	576-0204-0	50	27.8	24.9	22.7	19.2
FX6A- 60P-0.8SV	576-0205-3	60	31.8	28.9	26.7	23.2
FX6A- 80P-0.8SV	576-0207-9	80	39.8	36.9	34.7	31.2
FX6A-100P-0.8SV	576-0208-1	100	47.8	44.9	42.7	39.2

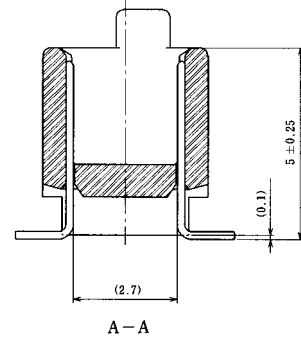
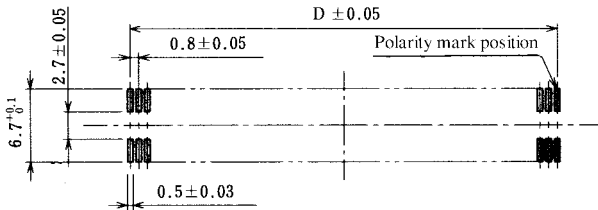
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Without Boss Type

Header-Stacking Height: Standard+1 type



PCB mounting pattern



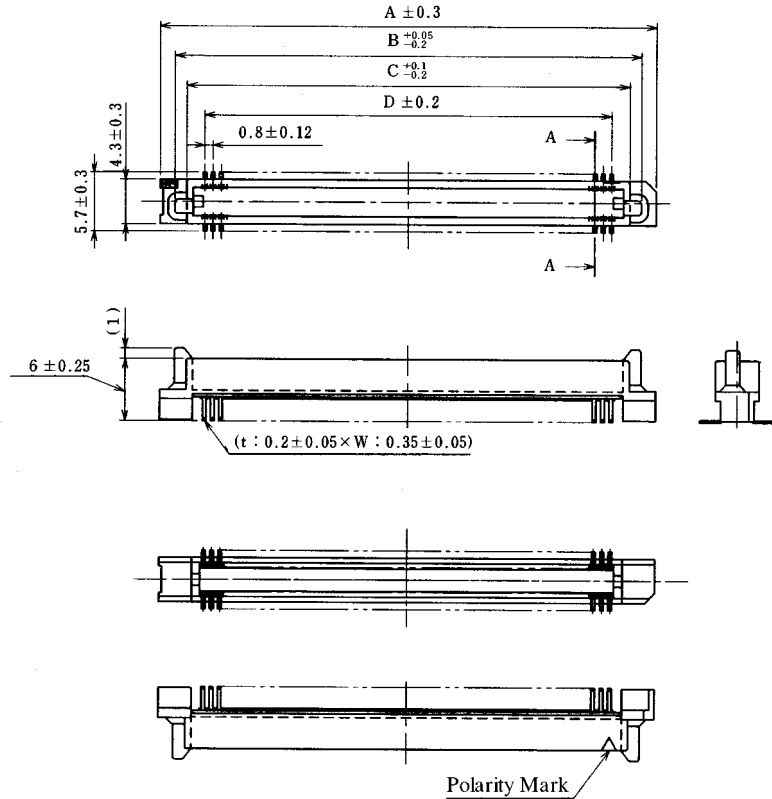
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D
FX6A- 20P-0.8SV1	576-0221-0	20	15.8	12.9	10.7	7.2
FX6A- 40P-0.8SV1	576-0223-5	40	23.8	20.9	18.7	15.2
FX6A- 50P-0.8SV1	576-0224-8	50	27.8	24.9	22.7	19.2
FX6A- 60P-0.8SV1	576-0225-0	60	31.8	28.9	26.7	23.2
FX6A- 80P-0.8SV1	576-0227-6	80	39.8	36.9	34.7	31.2
FX6A-100P-0.8SV1	576-0228-9	100	47.8	44.9	42.7	39.2

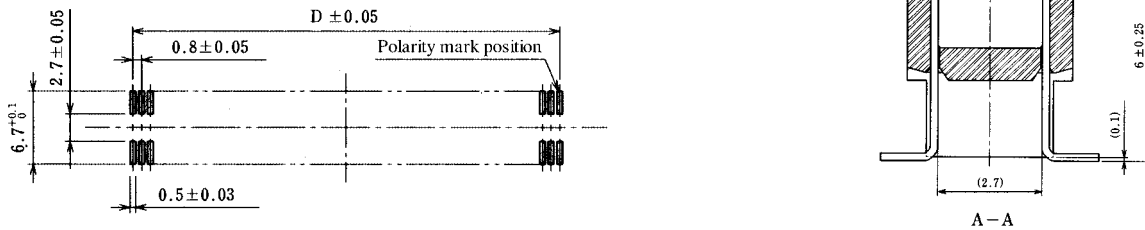
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Without Boss Type

■Receptacle-Stacking Height: Standard+2mm type



◆PCB mounting pattern



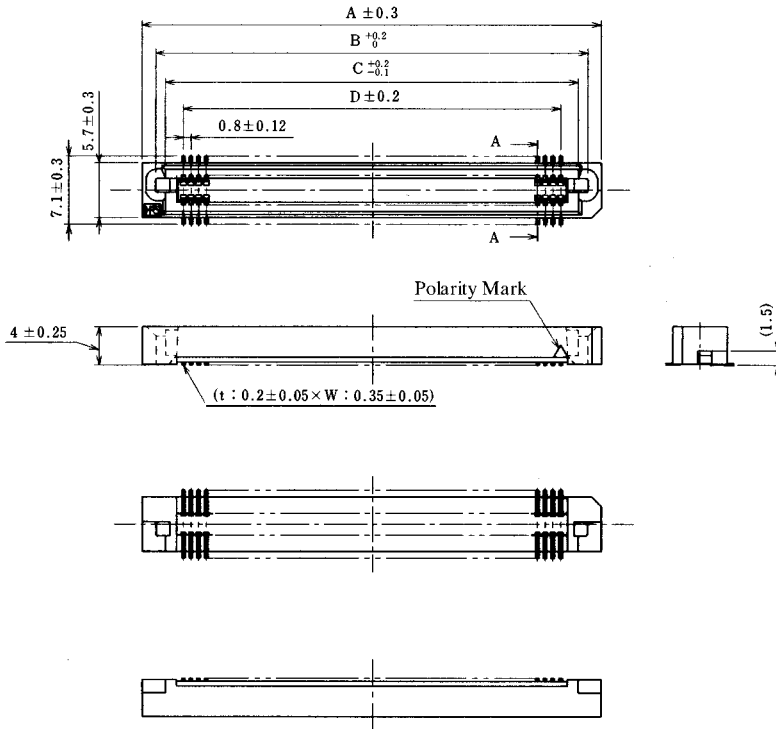
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D
FX6A- 20P-0.8SV2	576-0241-7	20	15.8	12.9	10.7	7.2
FX6A- 40P-0.8SV2	576-0243-2	40	23.8	20.9	18.7	15.2
FX6A- 50P-0.8SV2	576-0244-5	50	27.8	24.9	22.7	19.2
FX6A- 60P-0.8SV2	576-0245-8	60	31.8	28.9	26.7	23.2
FX6A- 80P-0.8SV2	576-0247-3	80	39.8	36.9	34.7	31.2
FX6A-100P-0.8SV2	576-0248-6	100	47.8	44.9	42.7	39.2

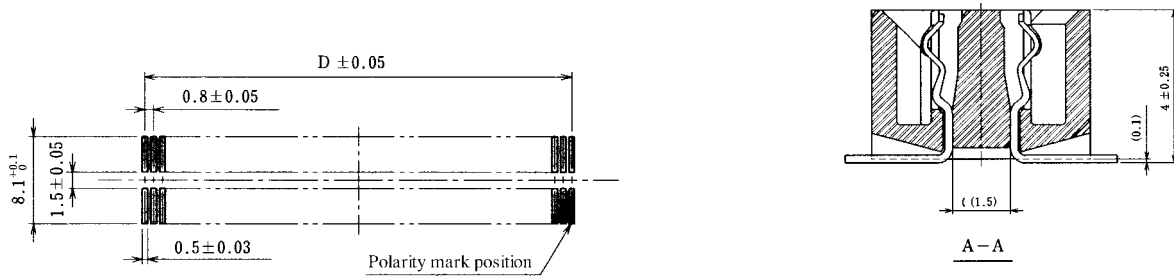
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Without Boss Type

■ Receptacle-Stacking Height: Standard type



◆ PCB mounting pattern



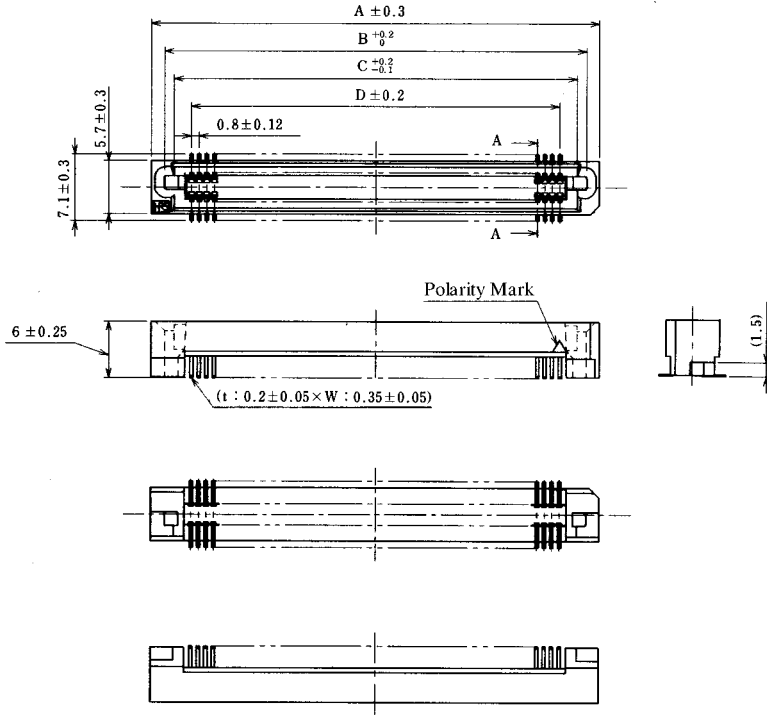
Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D
FX6A- 20S-0.8SV	576-0301-7	20	15.8	12.95	10.9	7.2
FX6A- 40S-0.8SV	576-0303-2	40	23.8	20.95	18.9	15.2
FX6A- 50S-0.8SV	576-0304-5	50	27.8	24.95	22.9	19.2
FX6A- 60S-0.8SV	576-0305-8	60	31.8	28.95	26.9	23.2
FX6A- 80S-0.8SV	576-0307-3	80	39.8	36.95	34.9	31.2
FX6A-100S-0.8SV	576-0308-6	100	47.8	44.95	42.9	39.2

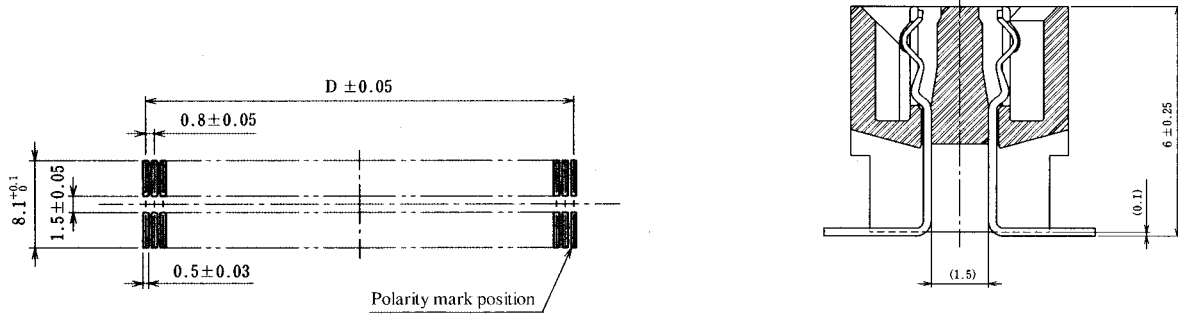
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Without Boss Type

■ Receptacle-Stacking Height: Standard+2mm type



◆ PCB mounting pattern



Unit: mm

Part Number	CL No.	Number of Contacts	A	B	C	D
FX6A- 20S-0.8SV2	576-0321-4	20	15.8	12.95	10.9	7.2
FX6A- 40S-0.8SV2	576-0323-0	40	23.8	20.95	18.9	15.2
FX6A- 50S-0.8SV2	576-0324-2	50	27.8	24.95	22.9	19.2
FX6A- 60S-0.8SV2	576-0325-5	60	31.8	28.95	26.9	23.2
FX6A- 80S-0.8SV2	576-0327-0	80	39.8	36.95	34.9	31.2
FX6A-100S-0.8SV2	576-0328-3	100	47.8	44.95	42.9	39.2

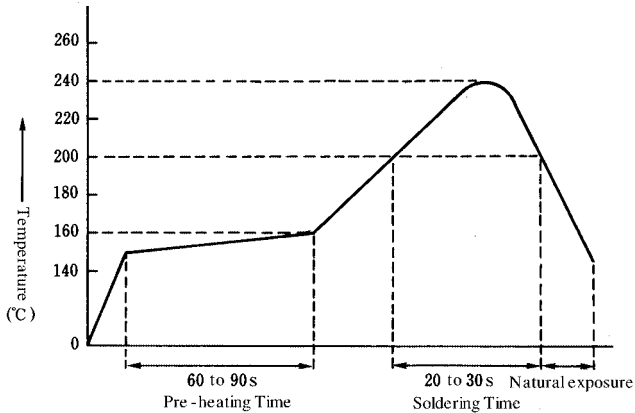
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◆ Connector Precautions for Use

1. Tolerance Clearance on Mating Side

The effective contact length of the product is set to 1.7mm. Please use the products as to set the clearance within 1.0mm between the header and the receptacle in the mating process.

2. Mounting Temperature Profile (Reference)



Applicable Conditions

Reflow system	:IR reflow
Solder	:Paste type 63 Sn/37 Pb (Flux content 11 wt%)
Test board	:Glass epoxy 110mm x 55mm x 1.6 mm
Metal mask thickness	:0.15 mm

Recommended temperature profile.

The temperature may be slightly changed according to the solder paste type and amount.

3. Board to Board Size

The board to board size of the male/female connector shown in the application pattern doesn't include the solder paste thickness. Thus, after the connector is mounted on the board, consider that the board to board size will be widened in proportion to the solder paste thickness.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View FX6-40S-0.8SV2 on WIN SOURCE](#)
- [Hirose Electric Co Ltd Information](#)

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