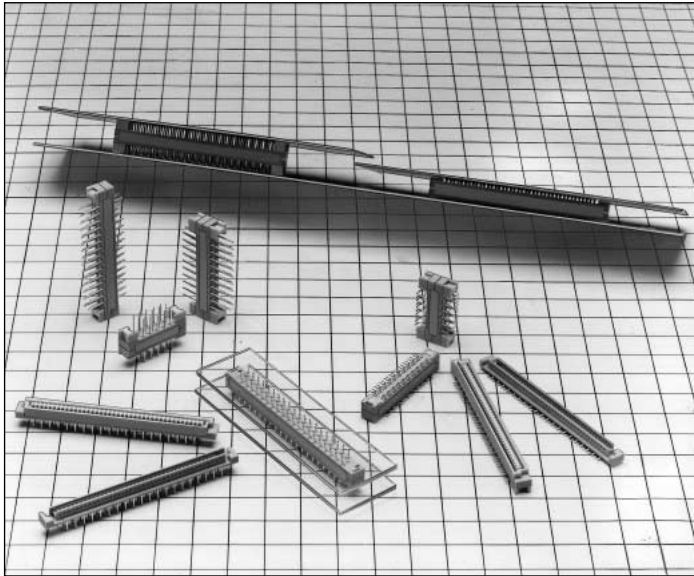
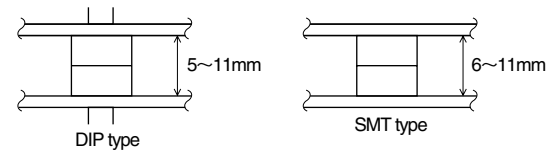


# Stacking Height 5~11mm Half Pitch Connector

## FX4 Series



### Stacking Height Flexible



The mounting area 70% reduced, compared with conventional product (FX2 series)



FX2 series



FX4 series

(Compared with 60 contacts)

## ■ Features

The FX4 series is a miniature board to board connectors, where the stacking height can be set at the 1mm interval. According to the mounting method, you can select the product from the dip type and SMT type.

### ● Dip Type

#### 1. Small and Light

The mounting space and weight is reduced about 30%, compared to the conventional product (HRS FX2 series), respectively, and the mounting area about 70% reduced, compared to the conventional one.

#### 2. Stacking Height 5~11mm

The board to board stacking height can be set per 1mm from 5mm up to 11mm.

#### 3. Flux Swell Prevention

When solder is dipped, the flux swell from the board rear side is completely prevented.

#### 4. Mis-insertion Prevention and Low Insertion/Extraction Force Mechanism

The connection area is designed to completely prevent the mis-insertion.

Moreover, the low insertion/extraction mechanism is adopted.

### ● SMT Type

#### 1. Small and Light

The mounting space and weight is reduced about 40%, compared with the conventional product (HRS FX2 series), and the mounting area is reduced 80%, compared to the conventional one.

#### 2. Stacking Height 6~11mm

The board to board stacking height can be set per 1mm from 6mm up to 11mm. In addition, the height can be also set in combination with the dip type.

#### 3. Mis-insertion Prevention and Low Insertion/Extraction Structure

The connection area is designed to completely prevent the mis-insertion.

Moreover, the low insertion/extraction force mechanism is adopted.

#### 4. Positioning Boss Selectable

According to the mounting condition, it is selected whether or not the boss is required. Regarding the boss attached type, the boss eccentric position can stabilize the mounting direction.

## ■ Applications

Computers, peripheral equipments, business equipments, etc.

## Product Specifications

Rating	Rated Current 0.5A	Operating Temperature Range -55°C~+85°C Note 1	Storage Temperature Range -10°C~+60°C Note 2.
	Rated Voltage 125V AC	Operating Humidity Range 40%~80%	Storage Humidity Range 40%~70%

Item	Specification	Condition
1. Insulation Resistance	100MΩ min.	Measured at 250V PC
2. Withstand Voltage	Neither short or insulation breakdown	300V AC for 1 minute
3. Resistance	45mΩ max.	Measured at 100mA
4. Vibration	Electrical discontinuity, 1μS max.	10~55Hz, single amplitude 0.75mm in 3 direction for 10 cycles, respectively.
5. Moisture Resistance	Contact resistance: 55mΩ max. Insulation resistance: 100MΩ min.	Exposed to temperature 40±2°C and humidity 90~95% for 96 hours
6. Temperature Cycle	Contact resistance : 55mΩ max. Insulation resistance : 100MΩ min.	(-55°C: 30 minutes 15~35°C: 2~3 minutes 85°C: 30 minutes 15~35°C: 2~3minutes) 5 cycles
7. Operating Life	Contact resistance : 55mΩ max.	300 cycles
8. Resistance to Soldering heat	No resin area fusion to degrade performance	SMT type Reflow: According to the recommended temperature profile
		Dip type Soldering iron temperature: 300°C for 3 seconds

Note 1. Temperature rise included when energized

Note 2. This storage indicates a long-term storage state for the unused product before the board mounted.

Note 3. The above standards represent this series. Individual formal agreement should be based on the "Specification".

## Material

Part	Material	Finish	Remarks
Insulator	Polyamide	Beige	UL94V-0
Receptacle Contact	Phosphor bronze	Selective gold plating	————
Header Contact		Selective gold plating	————

## Ordering Information

Please determine the specific product. If needed, select and order the products from the type names as listed on catalog A192 to A204.

### Dip Type

FX 4C 1 - 80 P - 1.27 DSA L  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series Name : FX	⑤ Connector Type P : Header S : Receptacle
② Series No. : 4C	
③ Product Height Variable:None: Standard 1: +1mm 2: +2mm 3: +3mm	⑥ Contact Pitch : 1.27mm
	⑦ Contact Style : DSA : Straight
④ Number of Contacts: 20, 32, 40, 52, 60, 68, 80	⑧ L: Board prefixed pin

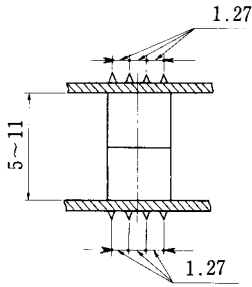
### SMT Type

FX 4A H - 80 P - 1.27 SV  
 ① ② ③ ④ ⑤ ⑥ ⑦

① Series Name : FX	④ Number of Contacts : 20, 32, 40, 52, 60, 68, 80
② Series No. : 4A : With boss 4B : Without boss	⑤ Connector Type P : Header S : Receptacle
③ Product Height Variable H : +0.5mm 1 : +1mm (Ratio to dip type standard product) 2 : +2mm 3 : +3mm	⑥ Contact Pitch : 1.27mm
	⑦ Contact Style : SV : vertical type

## ◆ Application Pattern and Stacking Height Combination

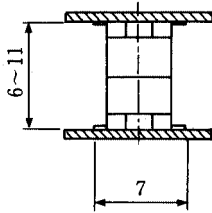
### ● Dip Type



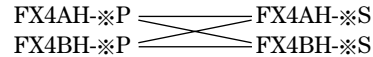
Unit: mm

Receptacle Header	FX4C-※S (Catalog page A195)	FX4C2-※S (Catalog page A196)	FX4C3-※S (Catalog page A197)
FX4C-※P (Catalog page A192)	5	7	8
FX4C1-※P (Catalog page A193)	6	8	9
FX4C3-※P (Catalog page A194)	8	10	11

### ● SMT Type



• The stacking height 6mm follows the diagonal diagram as shown below.

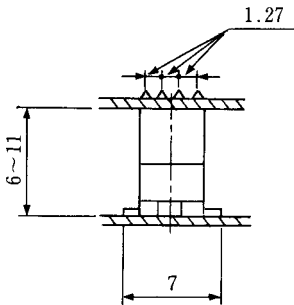


• The stacking height 7mm to 11mm follows the table as shown below.

Unit:mm

Receptacle Header	FX4A1-※S (Catalog page A202)	FX4A2-※S (Catalog page A203)	FX4A3-※S (Catalog page A204)
	FX4B1-※S (Catalog page A202)	FX4B2-※S (Catalog page A203)	FX4B3-※S (Catalog page A204)
FX4A1-※P (Catalog page A199)	7	8	9
FX4B1-※P (Catalog page A199)			
FX4A3-※P (Catalog page A200)	9	10	11
FX4B3-※P (Catalog page A200)			

### ● Dip Type and SMT Type



Unit:mm

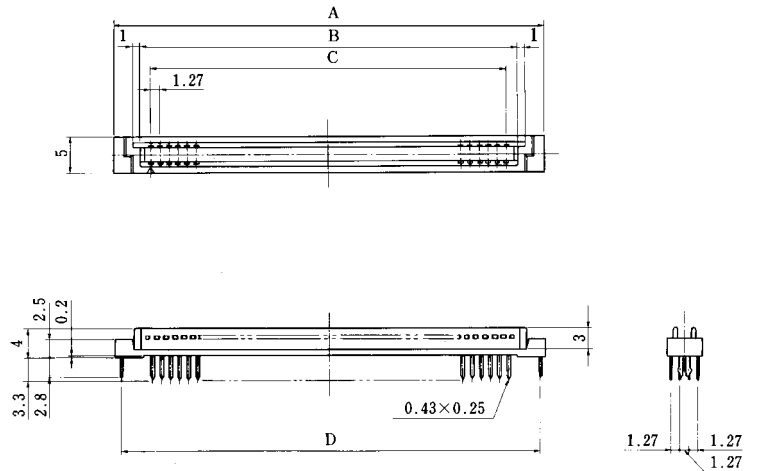
Receptacle Header	FX4A1-※S (Catalog page A202)	FX4A2-※S (Catalog page A203)	FX4A3-※S (Catalog page A204)
	FX4B1-※S (Catalog page A202)	FX4B2-※S (Catalog page A203)	FX4B3-※S (Catalog page A204)
FX4C-※P (Catalog page A192)	6	7	8
FX4C1-※P (Catalog page A193)	7	8	9
FX4C3-※P (Catalog page A194)	9	10	11

Receptacle Header	FX4A1-※P (Catalog page A199)	FX4A3-※P (Catalog page A200)
	FX4B1-※P (Catalog page A199)	FX4B3-※P (Catalog page A203)
FX4C-※S (Catalog page A195)	6	8
FX4C2-※S (Catalog page A196)	8	10
FX4C3-※S (Catalog page A197)	9	11

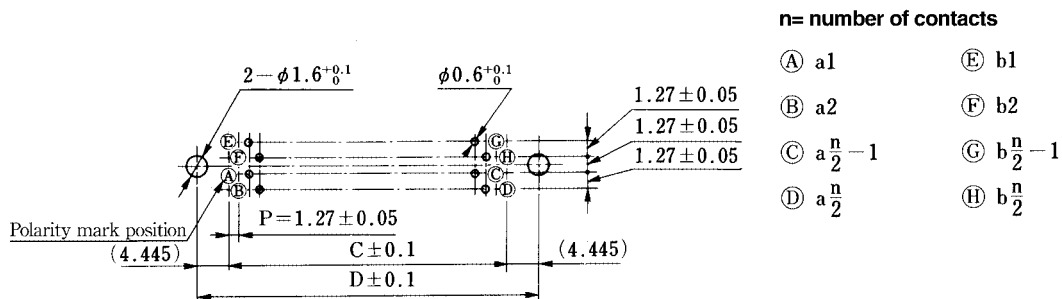
The above stacking height doesn't include the solder paste thickness.

Thus, please consider that the stacking height after the mounting process will be slightly higher than the conventional height.

## ■Header (DIP Type)-Stacking Height: Standard type



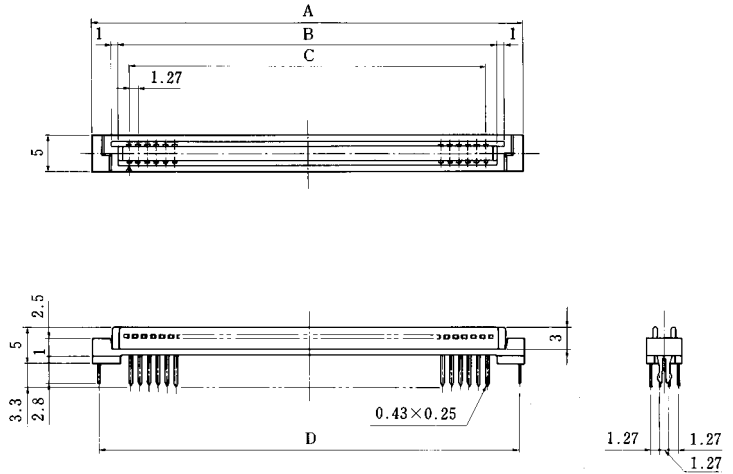
## ◆PCB footprints (Connector Mounting Surface Side)



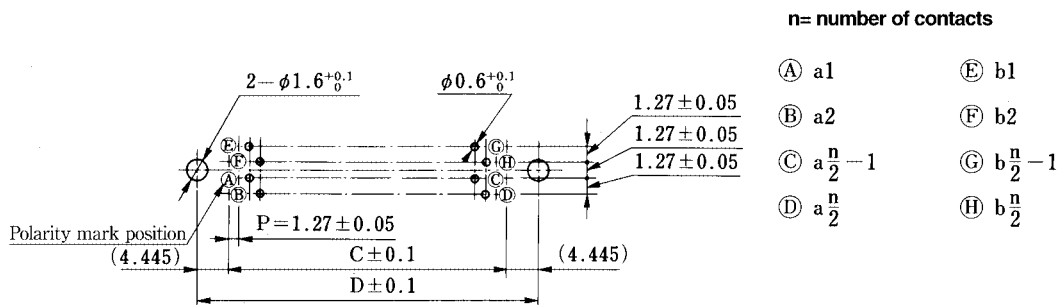
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C-20P-1.27DSA	CL574-0001-0	20	21.87	14.58	11.43	—
FX4C-20P-1.27DSAL	CL574-0051-9					20.32
FX4C-32P-1.27DSA	CL574-0002-3	32	29.49	22.2	19.05	—
FX4C-32P-1.27DSAL	CL574-0052-1					27.94
FX4C-40P-1.27DSA	CL574-0003-6	40	34.57	27.28	24.13	—
FX4C-40P-1.27DSAL	CL574-0053-4					33.02
FX4C-52P-1.27DSA	CL574-0004-9	52	42.19	34.9	31.75	—
FX4C-52P-1.27DSAL	CL574-0054-7					40.64
FX4C-60P-1.27DSA	CL574-0005-1	60	47.27	39.98	36.83	—
FX4C-60P-1.27DSAL	CL574-0055-0					45.72
FX4C-68P-1.27DSA	CL574-0006-4	68	52.35	45.06	41.91	—
FX4C-68P-1.27DSAL	CL574-0056-2					50.8
FX4C-80P-1.27DSA	CL574-0007-7	80	59.97	52.68	49.53	—
FX4C-80P-1.27DSAL	CL574-0057-5					58.42

## ■Header (DIP Type)-Stacking Height: Standard+1mm type



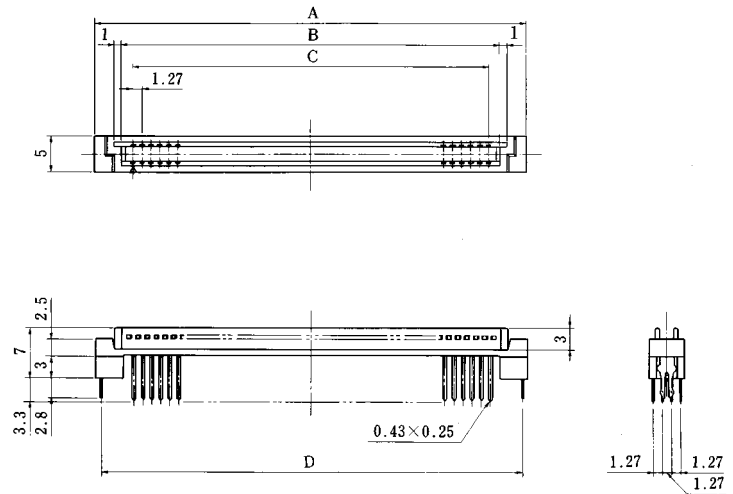
## ◆PCB footprints (Connector Mounting Surface Side)



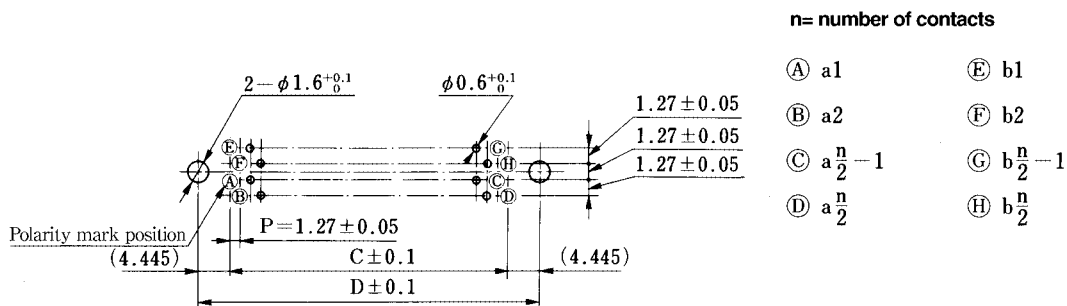
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C1-20P-1.27DSA	CL574-0011-4	20	21.87	14.58	11.43	—
FX4C1-20P-1.27DSAL	CL574-0061-2					20.32
FX4C1-32P-1.27DSA	CL574-0012-7	32	29.49	22.2	19.05	—
FX4C1-32P-1.27DSAL	CL574-0062-5					27.94
FX4C1-40P-1.27DSA	CL574-0013-0	40	34.57	27.28	24.13	—
FX4C1-40P-1.27DSAL	CL574-0063-8					33.02
FX4C1-52P-1.27DSA	CL574-0041-2	52	42.19	34.9	31.75	—
FX4C1-52P-1.27DSAL	CL574-0064-0					40.64
FX4C1-60P-1.27DSA	CL574-0015-5	60	47.27	39.98	36.83	—
FX4C1-60P-1.27DSAL	CL574-0065-3					45.72
FX4C1-68P-1.27DSA	CL574-0016-8	68	52.35	45.06	41.91	—
FX4C1-68P-1.27DSAL	CL574-0066-6					50.8
FX4C1-80P-1.27DSA	CL574-0017-0	80	59.97	52.68	49.53	—
FX4C1-80P-1.27DSAL	CL574-0067-9					58.42

## Header (DIP Type)-Stacking Height: Standard+3mm type



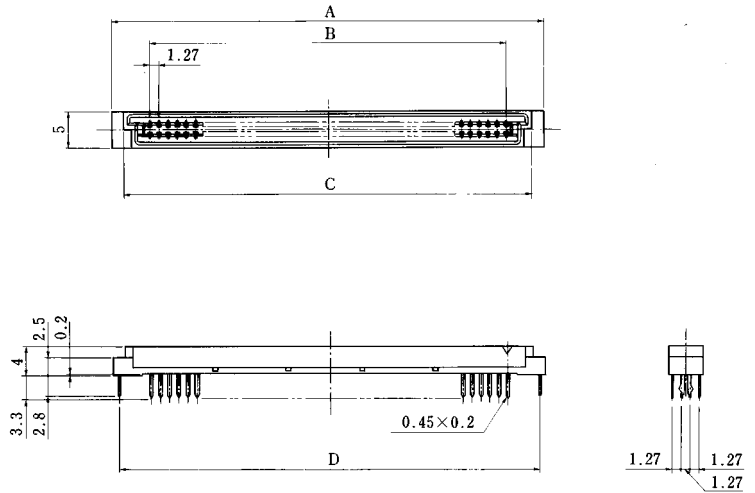
## PCB footprints (Connector Mounting Surface Side)



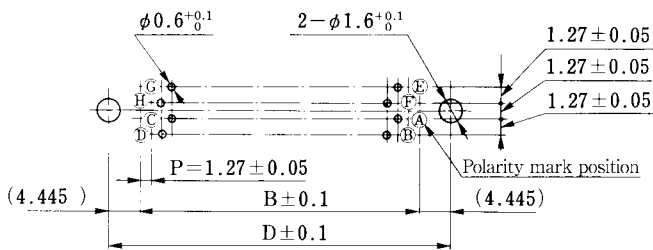
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C3-20P-1.27DSA	CL574-0031-1	20	21.87	14.58	11.43	—
FX4C3-20P-1.27DSAL	CL574-0081-0					20.32
FX4C3-32P-1.27DSA	CL574-0032-4	32	29.49	22.2	19.05	—
FX4C3-32P-1.27DSAL	CL574-0082-2					27.94
FX4C3-40P-1.27DSA	CL574-0033-7	40	34.57	27.28	24.13	—
FX4C3-40P-1.27DSAL	CL574-0083-5					33.02
FX4C3-52P-1.27DSA	CL574-0034-0	52	42.19	34.9	31.75	—
FX4C3-52P-1.27DSAL	CL574-0084-8					40.64
FX4C3-60P-1.27DSA	CL574-0035-2	60	47.27	39.98	36.83	—
FX4C3-60P-1.27DSAL	CL574-0085-0					45.72
FX4C3-68P-1.27DSA	CL574-0036-5	68	52.35	45.06	41.91	—
FX4C3-68P-1.27DSAL	CL574-0086-3					50.8
FX4C3-80P-1.27DSA	CL574-0037-8	80	59.97	52.68	49.53	—
FX4C3-80P-1.27DSAL	CL574-0087-6					58.42

## ■Receptacle (DIP Type)-Stacking Height: Standard type



## ◆PCB footprints (Connector Mounting Surface Side)



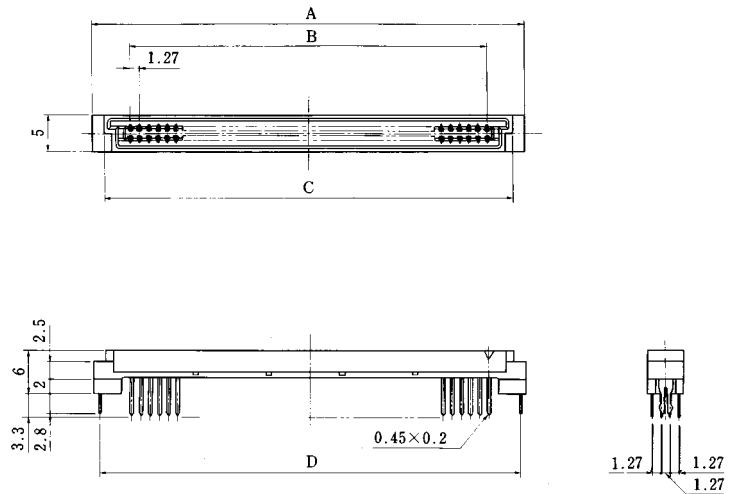
n= number of contacts

- Ⓐ a1
- Ⓑ a2
- Ⓒ  $a \frac{n}{2} - 1$
- Ⓓ  $a \frac{n}{2}$
- Ⓔ b1
- Ⓕ b2
- Ⓖ  $b \frac{n}{2} - 1$
- Ⓗ  $b \frac{n}{2}$

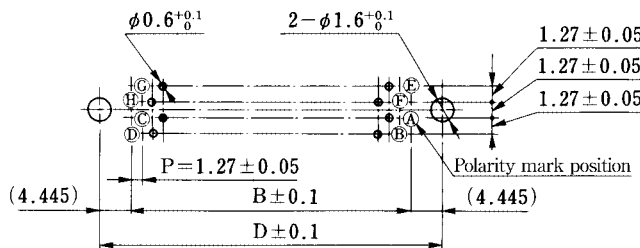
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C-20S-1.27DSA	CL574-0101-5	20	21.87	11.43	18.48	—
FX4C-20S-1.27DSAL	CL574-0151-3					20.32
FX4C-32S-1.27DSA	CL574-0102-8	32	29.49	19.05	26.1	—
FX4C-32S-1.27DSAL	CL574-0152-6					27.94
FX4C-40S-1.27DSA	CL574-0103-0	40	34.57	24.13	31.18	—
FX4C-40S-1.27DSAL	CL574-0153-9					33.02
FX4C-52S-1.27DSA	CL574-0104-3	52	42.19	31.75	38.8	—
FX4C-52S-1.27DSAL	CL574-0154-1					40.64
FX4C-60S-1.27DSA	CL574-0105-6	60	47.27	36.83	43.88	—
FX4C-60S-1.27DSAL	CL574-0155-4					45.72
FX4C-68S-1.27DSA	CL574-0106-9	68	52.35	41.91	48.96	—
FX4C-68S-1.27DSAL	CL574-0156-7					50.8
FX4C-80S-1.27DSA	CL574-0107-1	80	59.97	49.53	56.58	—
FX4C-80S-1.27DSAL	CL574-0157-0					58.42

## ■Receptacle (DIP Type)-Stacking Height: Standard+2mm type



## ◆PCB footprints (Connector Mounting Surface Side)



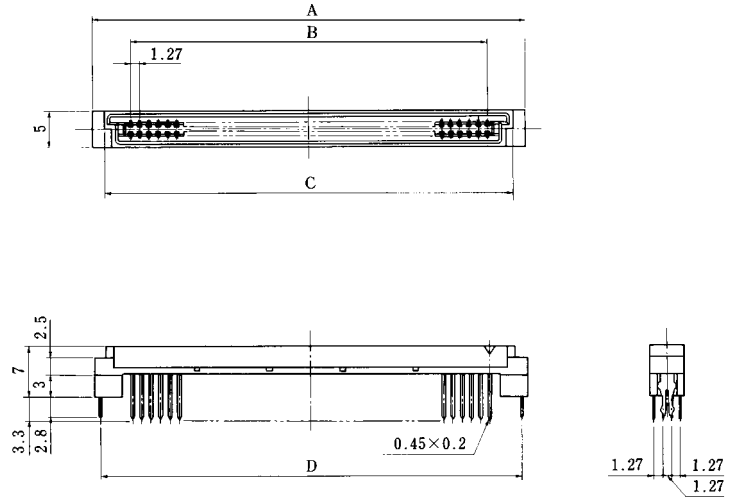
n= number of contacts

- Ⓐ a1                      Ⓔ b1
- Ⓑ a2                      Ⓕ b2
- Ⓒ  $a \frac{n}{2} - 1$               Ⓖ  $b \frac{n}{2} - 1$
- Ⓓ  $a \frac{n}{2}$                     Ⓖ  $b \frac{n}{2}$

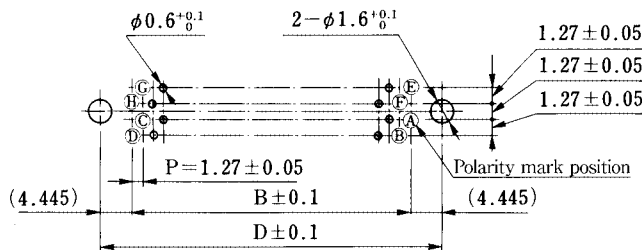
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C2-20S-1.27DSA	CL574-0121-2	20	21.87	11.43	18.48	—
FX4C2-20S-1.27DSAL	CL574-0171-0					20.32
FX4C2-32S-1.27DSA	CL574-0122-5	32	29.49	19.05	26.1	—
FX4C2-32S-1.27DSAL	CL574-0172-3					27.94
FX4C2-40S-1.27DSA	CL574-0123-8	40	34.57	24.13	31.18	—
FX4C2-40S-1.27DSAL	CL574-0173-6					33.02
FX4C2-52S-1.27DSA	CL574-0124-0	52	42.19	31.75	38.8	—
FX4C2-52S-1.27DSAL	CL574-0174-9					40.64
FX4C2-60S-1.27DSA	CL574-0125-3	60	47.27	36.83	43.88	—
FX4C2-60S-1.27DSAL	CL574-0175-1					45.72
FX4C2-68S-1.27DSA	CL574-0126-6	68	52.35	41.91	48.96	—
FX4C2-68S-1.27DSAL	CL574-0176-4					50.8
FX4C2-80S-1.27DSA	CL574-0127-9	80	59.97	49.53	56.58	—
FX4C2-80S-1.27DSAL	CL574-0177-7					58.42

## ■Receptacle (DIP Type)-Stacking Height: Standard+3mm type



## ◆PCB footprints (Connector Mounting Surface Side)



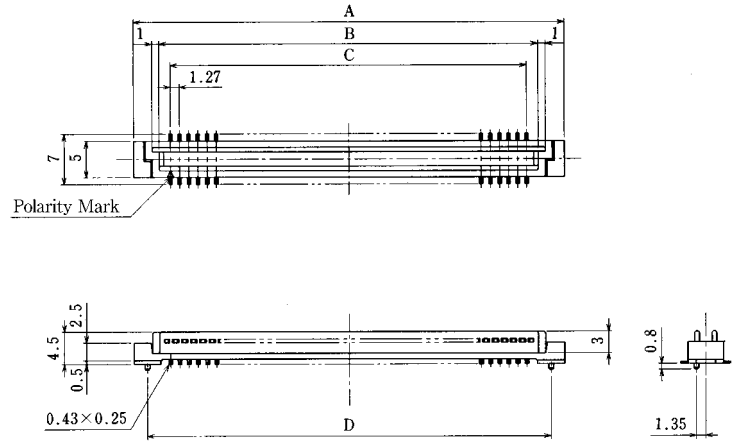
n= number of contacts

- Ⓐ a1
- Ⓑ a2
- Ⓒ  $a\frac{n}{2}-1$
- Ⓓ  $a\frac{n}{2}$
- Ⓔ b1
- Ⓕ b2
- Ⓖ  $b\frac{n}{2}-1$
- Ⓗ  $b\frac{n}{2}$

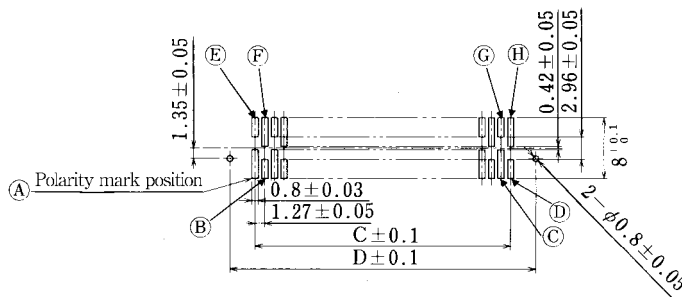
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D
FX4C3-20S-1.27DSA	CL574-0131-6	20	21.87	11.43	18.48	—
FX4C3-20S-1.27DSAL	CL574-0181-4					20.32
FX4C3-32S-1.27DSA	CL574-0132-9	32	29.49	19.05	26.1	—
FX4C3-32S-1.27DSAL	CL574-0182-7					27.94
FX4C3-40S-1.27DSA	CL574-0133-1	40	34.57	24.13	31.18	—
FX4C3-40S-1.27DSAL	CL574-0183-0					33.02
FX4C3-52S-1.27DSA	CL574-0134-4	52	42.19	31.75	38.8	—
FX4C3-52S-1.27DSAL	CL574-0184-2					40.64
FX4C3-60S-1.27DSA	CL574-0135-7	60	47.27	36.83	43.88	—
FX4C3-60S-1.27DSAL	CL574-0185-5					45.72
FX4C3-68S-1.27DSA	CL574-0136-0	68	52.35	41.91	48.96	—
FX4C3-68S-1.27DSAL	CL574-0186-8					50.8
FX4C3-80S-1.27DSA	CL574-0137-2	80	59.97	49.53	56.58	—
FX4C3-80S-1.27DSAL	CL574-0187-0					58.42

## ■Header (SMT Type)-Stacking Height: Standard+0.5mm type



## ◆PCB footprints (Connector Mounting Surface Side)



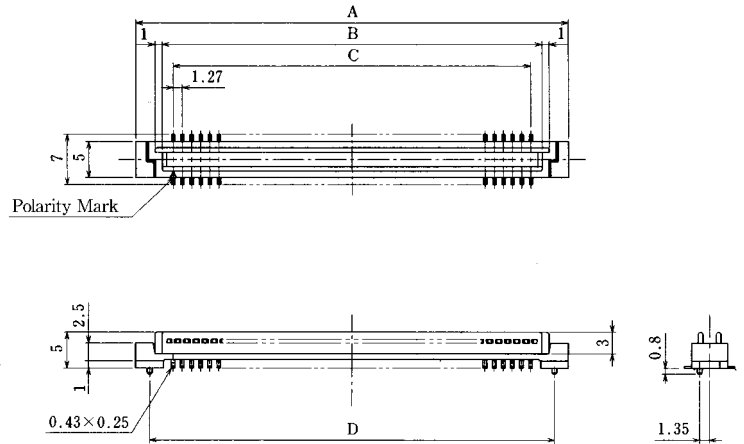
n= number of contacts

- |                    |                    |
|--------------------|--------------------|
| Ⓐ a1               | Ⓔ b1               |
| Ⓑ a2               | Ⓕ b2               |
| Ⓒ $a\frac{n}{2}-1$ | Ⓖ $b\frac{n}{2}-1$ |
| Ⓓ $a\frac{n}{2}$   | Ⓗ $b\frac{n}{2}$   |

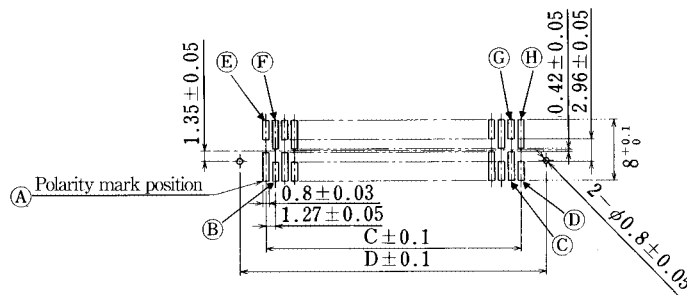
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4AH-20P-1.27SV	CL574-0401-9	20	21.87	14.58	11.43	—	No
FX4BH-20P-1.27SV	CL574-0201-0					18.07	Yes
FX4AH-32P-1.27SV	CL574-0402-1	32	29.49	22.2	19.05	—	No
FX4BH-32P-1.27SV	CL574-0202-2					25.69	Yes
FX4AH-40P-1.27SV	CL574-0403-4	40	34.57	27.28	24.13	—	No
FX4BH-40P-1.27SV	CL574-0203-5					30.77	Yes
FX4AH-52P-1.27SV	CL574-0404-7	52	42.19	34.9	31.75	—	No
FX4BH-52P-1.27SV	CL574-0204-8					38.39	Yes
FX4AH-60P-1.27SV	CL574-0405-0	60	47.27	39.98	36.83	—	No
FX4BH-60P-1.27SV	CL574-0205-0					43.47	Yes
FX4AH-68P-1.27SV	CL574-0406-2	68	52.35	45.06	41.91	—	No
FX4BH-68P-1.27SV	CL574-0206-3					48.55	Yes
FX4AH-80P-1.27SV	CL574-0407-5	80	59.97	52.68	49.53	—	No
FX4BH-80P-1.27SV	CL574-0207-6					56.17	Yes

## ■Header (SMT Type)-Stacking Height: Standard+1mm type



## ◆PCB footprints (Connector Mounting Surface Side)



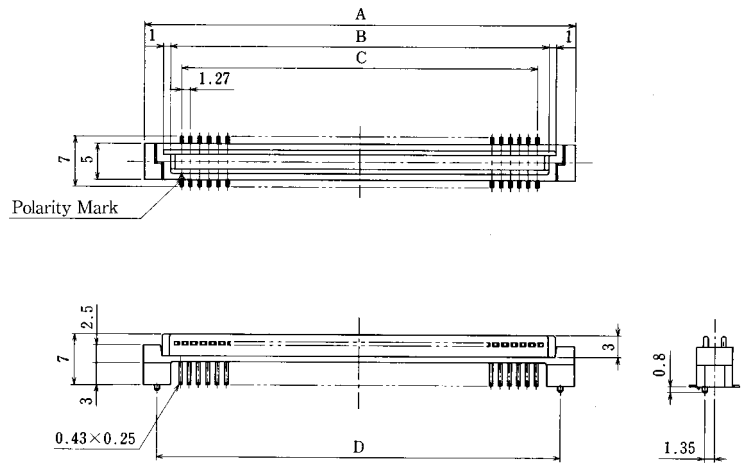
n= number of contacts

- Ⓐ a1                      Ⓔ b1
- Ⓑ a2                      Ⓕ b2
- Ⓒ  $a\frac{n}{2}-1$               Ⓖ  $b\frac{n}{2}-1$
- Ⓓ  $a\frac{n}{2}$                     Ⓗ  $b\frac{n}{2}$

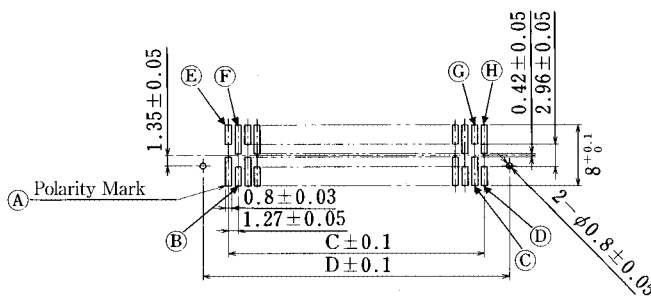
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4A1-20P-1.27SV	CL574-0411-2	20	21.87	14.58	11.43	—	No
FX4B1-20P-1.27SV	CL574-0211-3					18.07	Yes
FX4A1-32P-1.27SV	CL574-0412-5	32	29.49	22.2	19.05	—	No
FX4B1-32P-1.27SV	CL574-0212-6					25.69	Yes
FX4A1-40P-1.27SV	CL574-0413-8	40	34.57	27.28	24.13	—	No
FX4B1-40P-1.27SV	CL574-0213-9					30.77	Yes
FX4A1-52P-1.27SV	CL574-0414-0	52	42.19	34.9	31.75	—	No
FX4B1-52P-1.27SV	CL574-0214-1					38.39	Yes
FX4A1-60P-1.27SV	CL574-0415-3	60	47.27	39.98	36.83	—	No
FX4B1-60P-1.27SV	CL574-0215-4					43.47	Yes
FX4A1-68P-1.27SV	CL574-0416-6	68	52.35	45.06	41.91	—	No
FX4B1-68P-1.27SV	CL574-0216-7					48.55	Yes
FX4A1-80P-1.27SV	CL574-0417-9	80	59.97	52.68	49.53	—	No
FX4B1-80P-1.27SV	CL574-0217-0					56.17	Yes

## ■Header (SMT Type)-Stacking Height: Standard+3mm type



## ◆PCB footprints (Connector Mounting Surface Side)



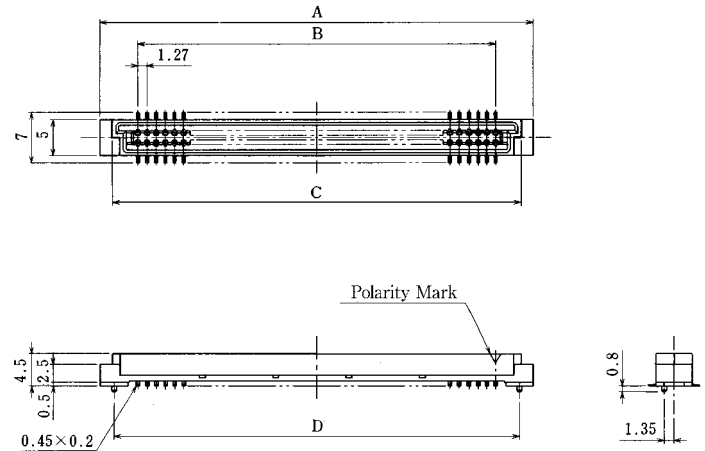
n= number of contacts

- |                    |                    |
|--------------------|--------------------|
| Ⓐ a1               | Ⓔ b1               |
| Ⓑ a2               | Ⓕ b2               |
| Ⓒ $a\frac{n}{2}-1$ | Ⓖ $b\frac{n}{2}-1$ |
| Ⓓ $a\frac{n}{2}$   | Ⓗ $b\frac{n}{2}$   |

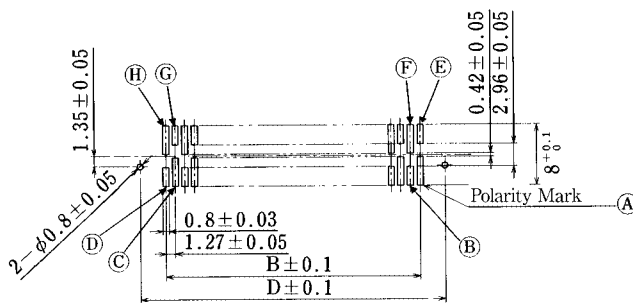
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4A3-20P-1.27SV	CL574-0431-0	20	21.87	14.58	11.43	—	No
FX4B3-20P-1.27SV	CL574-0231-0					18.07	Yes
FX4A3-32P-1.27SV	CL574-0432-2	32	29.49	22.2	19.05	—	No
FX4B3-32P-1.27SV	CL574-0232-3					25.69	Yes
FX4A3-40P-1.27SV	CL574-0433-5	40	34.57	27.28	24.13	—	No
FX4B3-40P-1.27SV	CL574-0233-6					30.77	Yes
FX4A3-52P-1.27SV	CL574-0434-8	52	42.19	34.9	31.75	—	No
FX4B3-52P-1.27SV	CL574-0234-9					38.39	Yes
FX4A3-60P-1.27SV	CL574-0435-0	60	47.27	39.98	36.83	—	No
FX4B3-60P-1.27SV	CL574-0235-1					43.47	Yes
FX4A3-68P-1.27SV	CL574-0436-3	68	52.35	45.06	41.91	—	No
FX4B3-68P-1.27SV	CL574-0236-4					48.55	Yes
FX4A3-80P-1.27SV	CL574-0437-6	80	59.97	52.68	49.53	—	No
FX4B3-80P-1.27SV	CL574-0237-7					56.17	Yes

## ■Receptacle (SMT Type)-Stacking Height: Standard+0.5mm type



## ◆PCB footprints (Connector Mounting Surface Side)



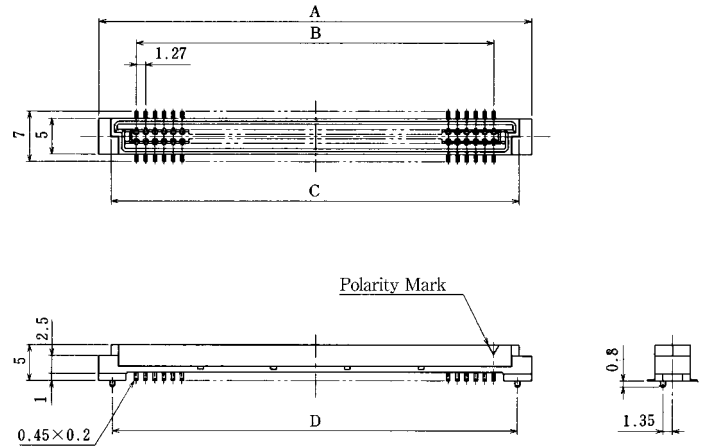
n= number of contacts

- |                      |                      |
|----------------------|----------------------|
| (A) $a1$             | (E) $b1$             |
| (B) $a2$             | (F) $b2$             |
| (C) $a\frac{n}{2}-1$ | (G) $b\frac{n}{2}-1$ |
| (D) $a\frac{n}{2}$   | (H) $b\frac{n}{2}$   |

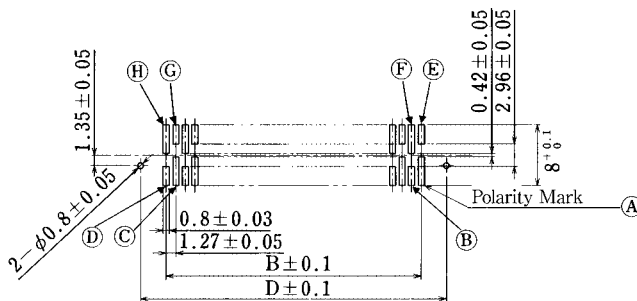
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4AH-20S-1.27SV	CL574-0501-3	20	21.87	11.43	18.48	—	No
FX4BH-20S-1.27SV	CL574-0301-4					18.07	Yes
FX4AH-32S-1.27SV	CL574-0502-6	32	29.49	19.05	26.1	—	No
FX4BH-32S-1.27SV	CL574-0302-7					25.69	Yes
FX4AH-40S-1.27SV	CL574-0503-9	40	34.57	24.13	31.18	—	No
FX4BH-40S-1.27SV	CL574-0303-0					30.77	Yes
FX4AH-52S-1.27SV	CL574-0504-1	52	42.19	31.75	38.8	—	No
FX4BH-52S-1.27SV	CL574-0304-2					38.39	Yes
FX4AH-60S-1.27SV	CL574-0505-4	60	47.27	36.83	43.88	—	No
FX4BH-60S-1.27SV	CL574-0305-5					43.47	Yes
FX4AH-68S-1.27SV	CL574-0506-7	68	52.35	41.91	48.96	—	No
FX4BH-68S-1.27SV	CL574-0306-8					48.55	Yes
FX4AH-80S-1.27SV	CL574-0507-0	80	59.97	49.53	56.58	—	No
FX4BH-80S-1.27SV	CL574-0307-0					56.17	Yes

## ■Receptacle (SMT Type)-Stacking Height: Standard+1mm type



## ◆PCB footprints (Connector Mounting Surface Side)



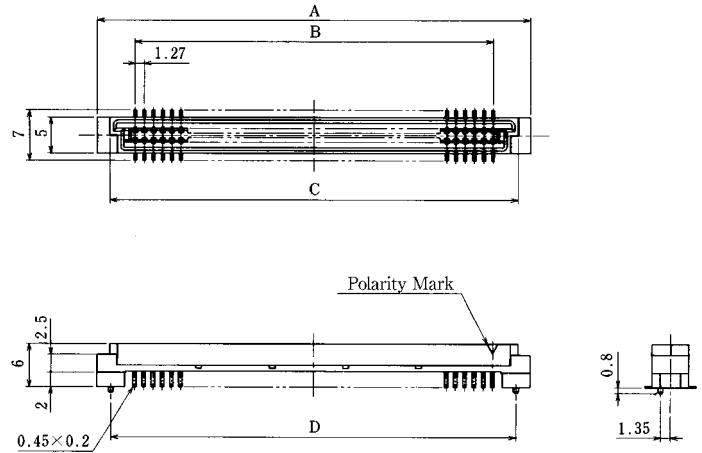
n= number of contacts

- |                    |                    |
|--------------------|--------------------|
| Ⓐ a1               | Ⓔ b1               |
| Ⓑ a2               | Ⓕ b2               |
| Ⓒ $a\frac{n}{2}-1$ | Ⓖ $b\frac{n}{2}-1$ |
| Ⓓ $a\frac{n}{2}$   | Ⓗ $b\frac{n}{2}$   |

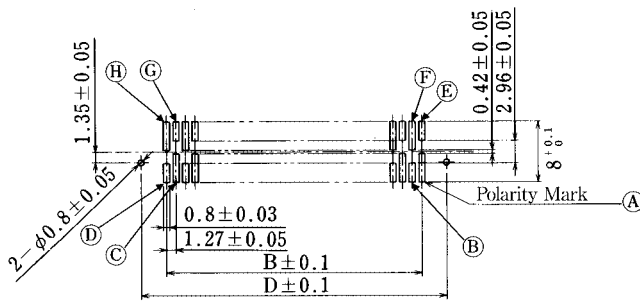
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4A1-20S-1.27SV	CL574-0511-7	20	21.87	11.43	18.48	—	No
FX4B1-20S-1.27SV	CL574-0311-8					18.07	Yes
FX4A1-32S-1.27SV	CL574-0512-0	32	29.49	19.05	26.1	—	No
FX4B1-32S-1.27SV	CL574-0312-0					25.69	Yes
FX4A1-40S-1.27SV	CL574-0513-2	40	34.57	24.13	31.18	—	No
FX4B1-40S-1.27SV	CL574-0313-3					30.77	Yes
FX4A1-52S-1.27SV	CL574-0514-5	52	42.19	31.75	38.8	—	No
FX4B1-52S-1.27SV	CL574-0314-6					38.39	Yes
FX4A1-60S-1.27SV	CL574-0515-8	60	47.27	36.83	43.88	—	No
FX4B1-60S-1.27SV	CL574-0315-9					43.47	Yes
FX4A1-68S-1.27SV	CL574-0516-0	68	52.35	41.91	48.96	—	No
FX4B1-68S-1.27SV	CL574-0316-1					48.55	Yes
FX4A1-80S-1.27SV	CL574-0517-3	80	59.97	49.53	56.58	—	No
FX4B1-80S-1.27SV	CL574-0317-4					56.17	Yes

## ■Receptacle (SMT Type)-Stacking Height: Standard+2mm type



## ◆PCB footprints (Connector Mounting Surface Side)



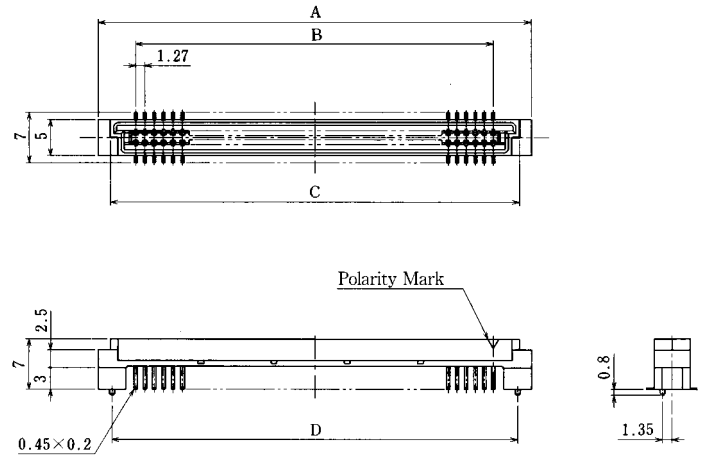
n= number of contacts

- Ⓐ a1                      Ⓔ b1
- Ⓑ a2                      Ⓕ b2
- Ⓒ  $a\frac{n}{2}-1$               Ⓖ  $b\frac{n}{2}-1$
- Ⓓ  $a\frac{n}{2}$                     Ⓗ  $b\frac{n}{2}$

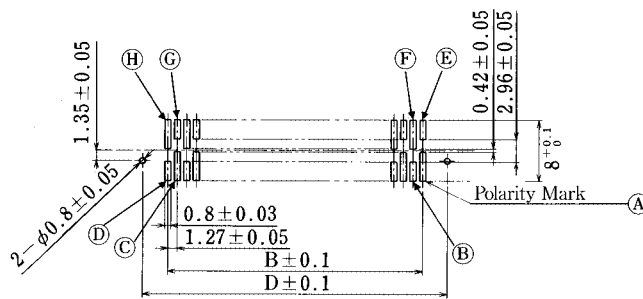
Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4A2-20S-1.27SV	CL574-0521-0	20	21.87	11.43	18.48	—	No
FX4B2-20S-1.27SV	CL574-0321-1					18.07	Yes
FX4A2-32S-1.27SV	CL574-0522-3	32	29.49	19.05	26.1	—	No
FX4B2-32S-1.27SV	CL574-0322-4					25.69	Yes
FX4A2-40S-1.27SV	CL574-0523-6	40	34.57	24.13	31.18	—	No
FX4B2-40S-1.27SV	CL574-0323-7					30.77	Yes
FX4A2-52S-1.27SV	CL574-0524-9	52	42.19	31.75	38.8	—	No
FX4B2-52S-1.27SV	CL574-0324-0					38.39	Yes
FX4A2-60S-1.27SV	CL574-0525-1	60	47.27	36.83	43.88	—	No
FX4B2-60S-1.27SV	CL574-0325-2					43.47	Yes
FX4A2-68S-1.27SV	CL574-0526-4	68	52.35	41.91	48.96	—	No
FX4B2-68S-1.27SV	CL574-0326-5					48.55	Yes
FX4A2-80S-1.27SV	CL574-0527-7	80	59.97	49.53	56.58	—	No
FX4B2-80S-1.27SV	CL574-0327-8					56.17	Yes

## ■Receptacle (SMT Type)-Stacking Height: Standard+3mm type



## ◆PCB footprints (Connector Mounting Surface Side)



n= number of contacts

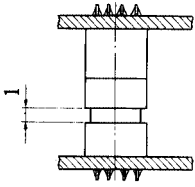
- Ⓐ a1      Ⓔ b1
- Ⓑ a2      Ⓕ b2
- Ⓒ  $\frac{n}{2} - 1$       Ⓖ  $\frac{n}{2} - 1$
- Ⓓ  $\frac{n}{2}$       Ⓗ  $\frac{n}{2}$

Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C	D	Positioning Boss
FX4A3-20S-1.27SV	CL574-0531-4	20	21.87	11.43	18.48	—	No
FX4B3-20S-1.27SV	CL574-0331-5					18.07	Yes
FX4A3-32S-1.27SV	CL574-0532-7	32	29.49	19.05	26.1	—	No
FX4B3-32S-1.27SV	CL574-0332-8					25.69	Yes
FX4A3-40S-1.27SV	CL574-0533-0	40	34.57	24.13	31.18	—	No
FX4B3-40S-1.27SV	CL574-0333-0					30.77	Yes
FX4A3-52S-1.27SV	CL574-0534-2	52	42.19	31.75	38.8	—	No
FX4B3-52S-1.27SV	CL574-0334-3					38.39	Yes
FX4A3-60S-1.27SV	CL574-0535-5	60	47.27	36.83	43.88	—	No
FX4B3-60S-1.27SV	CL574-0335-6					43.47	Yes
FX4A3-68S-1.27SV	CL574-0536-8	68	52.35	41.91	48.96	—	No
FX4B3-68S-1.27SV	CL574-0336-9					48.55	Yes
FX4A3-80S-1.27SV	CL574-0537-0	80	59.97	49.53	56.58	—	No
FX4B3-80S-1.27SV	CL574-0337-1					56.17	Yes

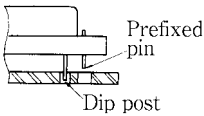
## ◆ Connector Precautions for Use

### 1. Tolerance Clearance on Mating Side



The effective connecting length of the product is set to 1.5mm. Please use the product to specify the clearance between the header and the receptacle in the connection process within 1mm.

### 2. Prefixed Process to Board (Dip Type)

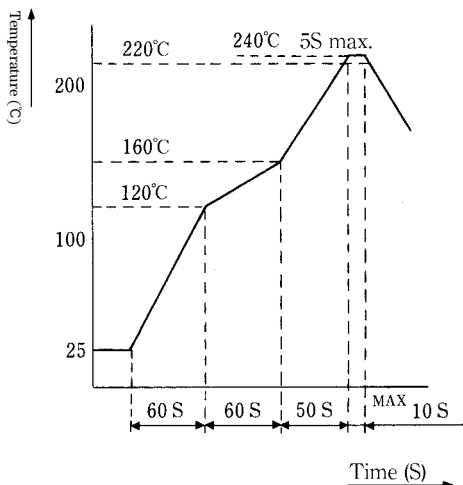


If the prefixed work is required for mounting on the board, please use the prefixed pin type. (Applicable board thickness  $t = 1.6 \pm 0.1$ )

**Cautions:** When the connector is installed in the board, the dip post is guided into the board through-hole in order to prevent the dip post breakage, and then insert the board in parallel to the connector so as to push in the prefixed pin.

### 3. Mounting Temperature Profile (Reference)

#### ● IR Reflow



**Note:**  
The heat-proof cover is also equipped on the header side.

Setting Condition:

○ Board

Size: 110×40×0.8(mm)

Material: Glass epoxy

○ Solder paste

Constituent: 63Sn/37b (Flux content: 11wt%)

Metal mask thickness: 0.2mm

○ Connector sample

From 20 to 80 contacts, optional number of contacts, height connector

○ Reflow cycle: once

In addition, the temperature profile as shown left will be variable in 5% less or more according to number of contacts, height or other factors.