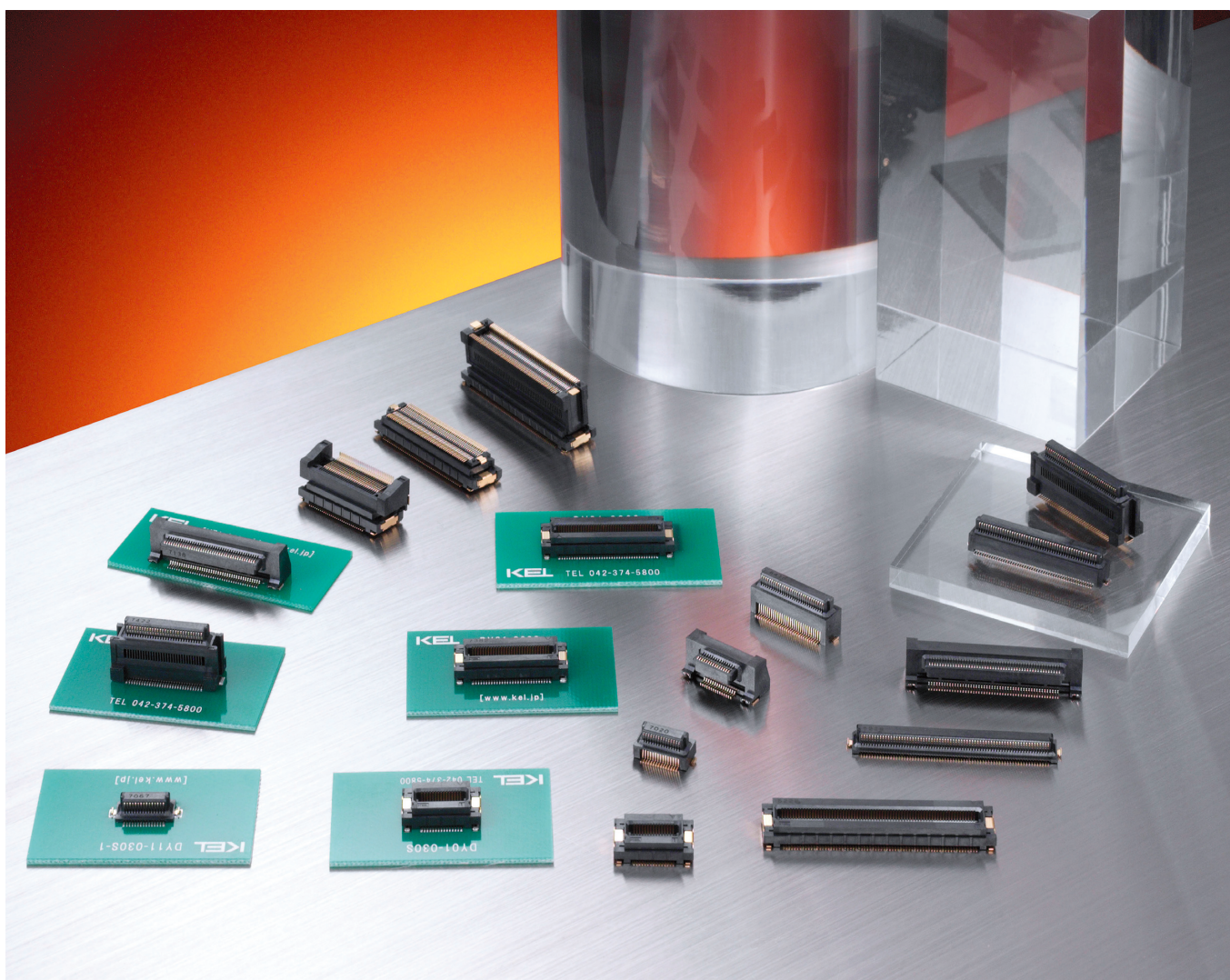




Floating Connector with 0.5mm Pitch $\pm 0.5\text{mm}$ Displacement in XY Direction

DY SERIES





DY SERIES

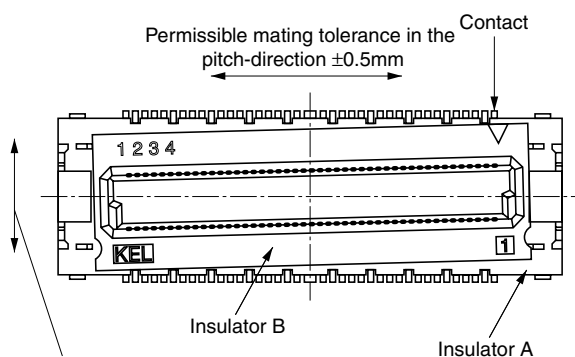
0.5mm PITCH FLOATING CONNECTOR



FEATURES

- 0.5mm pitch floating connector
- Location error offsets $\pm 0.5\text{mm}$ in the XY direction
- High reliable design with effective contact displacement of 1.25mm
- Suction area for automated mounting provided
- Positioning posts are optional for manual mounting
- Nine size : 30, 40, 50, 60, 80, 90, 100, 120 and 140 pins
*Available pin count varies with the product type.
- Plug connector variations : Straight and Right angle
- 2 mating variations (stacked and vertical)
- Ten mating height : 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14mm
*Available mating height varies with the product type.
- Shape of retention clip forming the large fillet
- RoHS compliance

Floating Connector



Permissible mating tolerance in the pitch-direction $\pm 0.5\text{mm}$

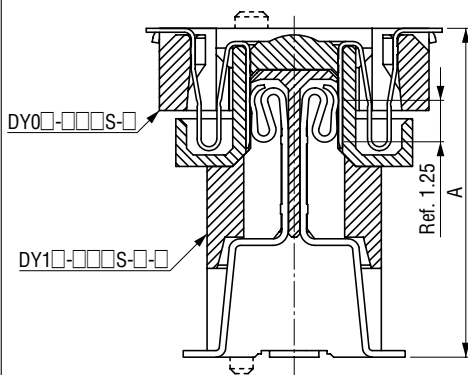
● When the connector is mounted on the printed circuit board, a location error in the two directions of horizontal and vertical (XY direction) may occur at both connectors. In addition, if each printed circuit board is fixed to a case by screws after mating connectors, the connectors may have to compensate for the location error because a gap occurs during screwing to the printed circuit board. A connector having a tolerance to compensate for such an error or gap caused by vibration is called a floating connector. The DY series is a 0.5mm fine pitch connector with $\pm 0.5\text{mm}$ floating mechanism and ensures sufficient compensation for location errors.

SPECIFICATIONS

- Insulator material : Glass-filled LCP (UL94V-0), Black
- Contact material : Copper alloy
- Contact plating : Gold over Nickel
- Retention clip material : Copper alloy
- Retention clip plating : Gold over Nickel
- Current rating : 0.4A per contact
0.3A per contact (DY1□-□□□L)
- Contact resistance : 80m Ω max.
100m Ω max. (DY1□-□□□L)
- Dielectric withstanding voltage : 200V AC for 1 minute
- Insulation resistance : 100M Ω min. at 250V DC
- Operating temperature : -40°C to $+85^{\circ}\text{C}$

Mating Combination

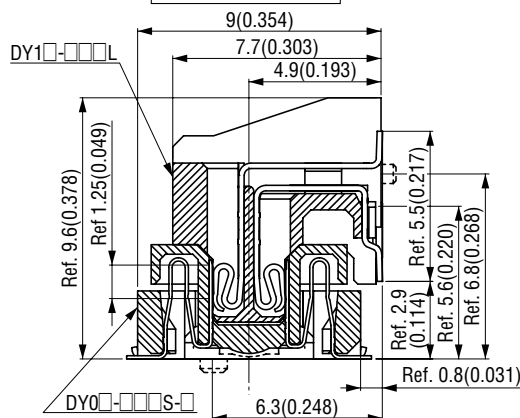
Stacked Mated



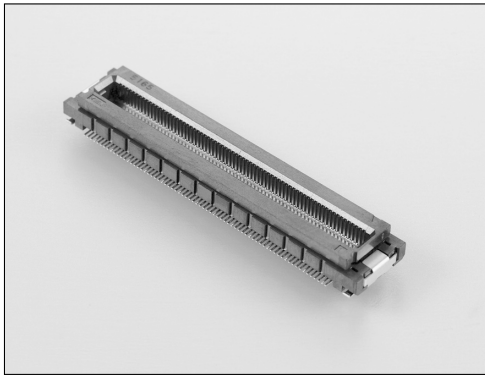
| Part Number | A |
|---------------|-----------|
| DY1□-□□□S-1-□ | 5(0.197) |
| DY1□-□□□S-2 | 6(0.236) |
| DY1□-□□□S-3 | 7(0.276) |
| DY1□-□□□S-4 | 8(0.315) |
| DY1□-□□□S-5 | 9(0.354) |
| DY1□-□□□S-6 | 10(0.394) |

Vertical Mated

Unit:mm(inch)



0.5mm PITCH FLOATING CONNECTOR



ORDER CODE

DY 0 - - - **S** -

- Connector type
00 : Receptacle, Without positioning posts
01 : Receptacle, With positioning posts
- Series name
DY : 0.5mm pitch floating connector
- Contact tail style
S : Straight, SMT
- Number of contacts
030 : 30 pin 090 : 90 pin
040 : 40 pin 100 : 100 pin
050 : 50 pin 120 : 120 pin
060 : 60 pin 140 : 140 pin
080 : 80 pin
- Number of packaging
Omit : 1000pcs. per reel
A : 500pcs. per reel

ORDER CODE

DY 1 - - - **S** - -

- Connector type
10 : Plug, Without positioning posts
11 : Plug, With positioning posts
- Series name
DY : 0.5mm pitch floating connector
- Contact tail style
S : Straight, SMT
- Stacked height
1 : 5 mm 4 : 8 mm
2 : 6 mm 5 : 9 mm
3 : 7 mm 6 : 10 mm
- Number of contacts
030 : 30 pin 080 : 80 pin
040 : 40 pin 100 : 100 pin
050 : 50 pin 120 : 120 pin
060 : 60 pin 140 : 140 pin
- Number of packaging
Omit : 500pcs. per reel
(Stacked height 6 to 10mm)
1,000pcs. per reel
(Stacked height 5mm)
A : 500pcs. per reel
(Stacked height 5mm)



*The product of 30 pin, 40 pin and 50 pin corresponds to the type of 5mm, 6mm and 7mm in the stack height.

ORDER CODE

DY 1 - - - **FS** -

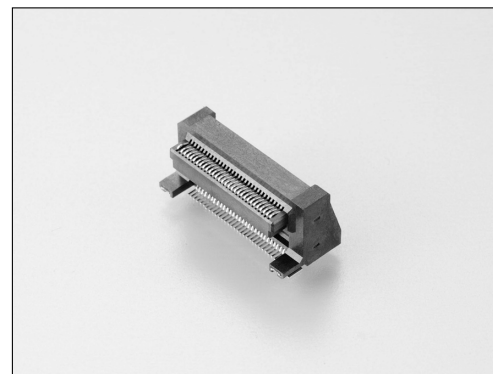
- Connector type
10 : Plug, Without positioning posts
11 : Plug, With positioning posts
- Series name
DY : 0.5mm pitch floating connector
- Contact tail style
FS : Flexible stacking straight, SMT
- Stacked height
1 : 11mm
(60,80,120,140 pin)
2 : 12 mm
3 : 13 mm
4 : 14 mm
- Number of contacts
060 : 60 pin 120 : 120 pin
080 : 80 pin 140 : 140 pin
100 : 100 pin



ORDER CODE

DY 1 - - - **L**

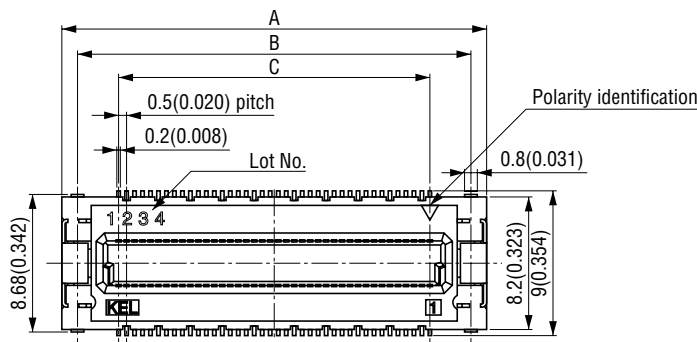
- Connector type
10 : Plug, Without positioning posts
11 : Plug, With positioning posts
- Series name
DY : 0.5mm pitch floating connector
- Contact tail style
L : Right angle, SMT
- Number of contacts
030 : 30 pin 080 : 80 pin
040 : 40 pin 090 : 90 pin
050 : 50 pin 100 : 100 pin
060 : 60 pin 120 : 120 pin



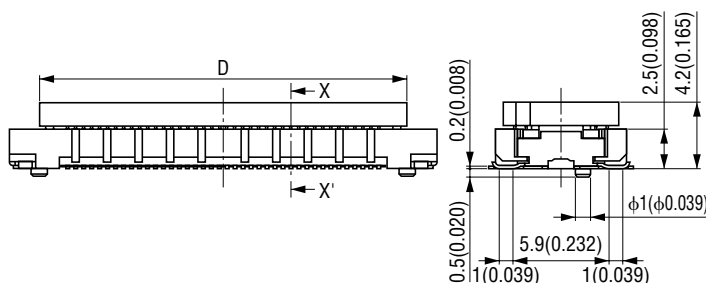
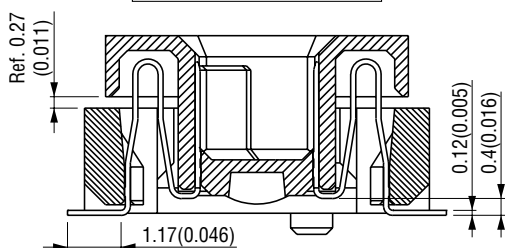
DY0□-□□□S-□ (Receptacle)

Unit:mm(inch)

Receptacle (Floating)

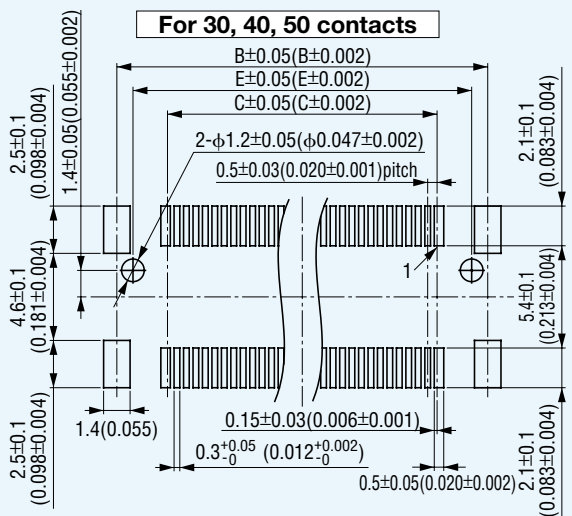


X-X' Cross Section

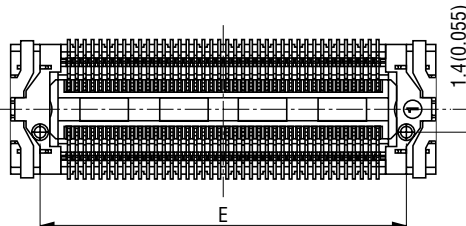
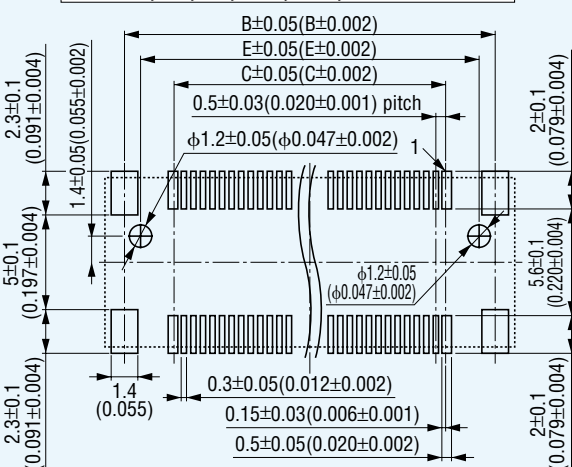


Printed Circuit Board Layout (Component Side View)

For 30, 40, 50 contacts



For 60, 80, 90, 100, 120, 140 contacts



Packaging style
Embossed tape

| Part Number | Number of packaging |
|-------------|---------------------|
| DY0□-□□□S | 1,000 |
| DY0□-□□□S-A | 500 |

Product Table / Dimensions

| No. of contacts | Part Number | A | B | C | D | E |
|-----------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 30 | DY0□-030S-□ | 14.2 (0.559) | 12.2 (0.480) | 7.0 (0.276) | 10.5 (0.413) | 10.5 (0.413) |
| 40 | DY0□-040S-□ | 16.7 (0.657) | 14.7 (0.579) | 9.5 (0.374) | 13.0 (0.512) | 13.0 (0.512) |
| 50 | DY0□-050S-□ | 19.2 (0.756) | 17.2 (0.677) | 12.0 (0.472) | 15.5 (0.610) | 15.5 (0.610) |
| 60 | DY0□-060S-□ | 21.7 (0.854) | 19.7 (0.776) | 14.5 (0.571) | 18.0 (0.709) | 18.0 (0.709) |
| 80 | DY0□-080S-□ | 26.7 (1.051) | 24.7 (0.972) | 19.5 (0.768) | 23.0 (0.906) | 23.0 (0.906) |
| 90 | DY0□-090S-□ | 29.2 (1.150) | 27.2 (1.071) | 22.0 (0.866) | 25.5 (1.004) | 25.5 (1.004) |
| 100 | DY0□-100S-□ | 31.7 (1.248) | 29.7 (1.169) | 24.5 (0.965) | 28.0 (1.102) | 28.0 (1.102) |
| 120 | DY0□-120S-□ | 36.7 (1.445) | 34.7 (1.366) | 29.5 (1.161) | 33.0 (1.299) | 33.0 (1.299) |
| 140 | DY0□-140S-□ | 41.7 (1.642) | 39.7 (1.563) | 34.5 (1.358) | 38.0 (1.496) | 38.0 (1.496) |

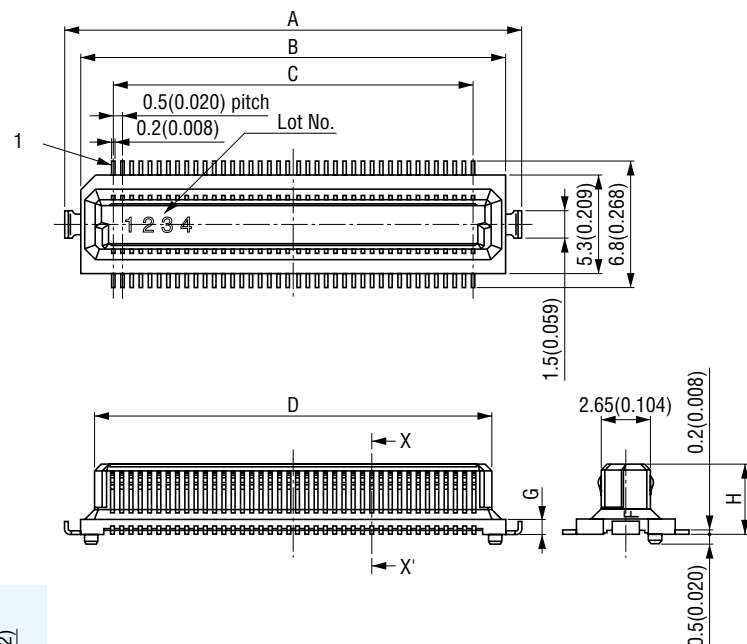
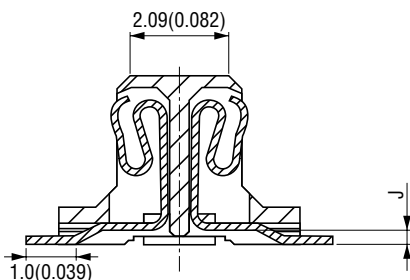
DY1□-□□□S-□-□ (Plug, For 5, 6 and 7mm stacked height)

Plug (Straight)

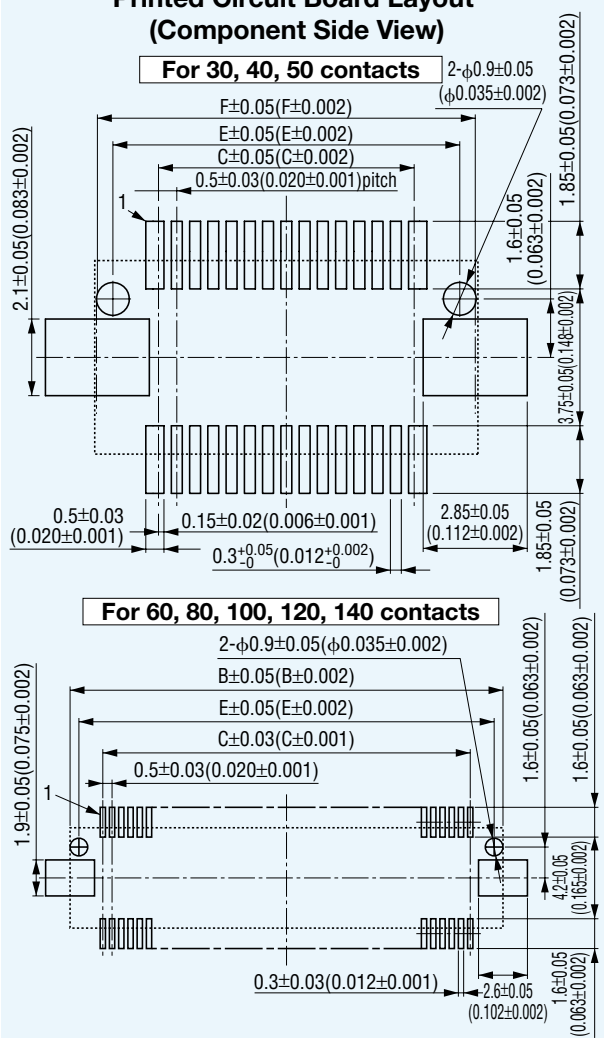


Unit:mm(inch)

X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



Stack height

| Part Number | Stack height | G | H | J | Number of packaging |
|---------------|----------------|----------------|-----------------|----------------|---------------------|
| DY1□-□□□S-1 | 5.0 (0.197) | 0.8 (0.031) | 3.73 (0.147) | 0.3 (0.012) | 1,000 |
| DY1□-□□□S-1-A | 5.0 (0.197) | 0.8 (0.031) | 3.73 (0.147) | 0.3 (0.012) | 500 |
| DY1□-□□□S-2 | 6.0 (0.236) | 1.8 (0.071) | 4.73 (0.186) | 1.3 (0.051) | 500 |
| DY1□-□□□S-3 | 7.0 (0.276) | 2.8 (0.110) | 5.73 (0.226) | 2.3 (0.091) | 500 |

Product Table / Dimensions

| No. of contacts | Part Number | A | B | C | D | E | F |
|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| 30 | DY1□-030S-□-□ | 12.2 (0.480) | 10.5 (0.413) | 7.0 (0.276) | 8.9 (0.350) | 9.5 (0.374) | 10.35 (0.407) |
| 40 | DY1□-040S-□-□ | 14.7 (0.579) | 13.0 (0.512) | 9.5 (0.374) | 11.4 (0.449) | 12.0 (0.472) | 12.85 (0.506) |
| 50 | DY1□-050S-□-□ | 17.2 (0.677) | 15.5 (0.610) | 12.0 (0.472) | 13.9 (0.547) | 14.5 (0.571) | 15.35 (0.610) |
| 60 | DY1□-060S-□-□ | 19.7 (0.776) | 18.0 (0.709) | 14.5 (0.571) | 16.4 (0.646) | 17.0 (0.669) | - |
| 80 | DY1□-080S-□-□ | 24.7 (0.972) | 23.0 (0.906) | 19.5 (0.768) | 21.4 (0.843) | 22.0 (0.866) | - |
| 100 | DY1□-100S-□-□ | 29.7 (1.169) | 28.0 (1.102) | 24.5 (0.965) | 26.4 (1.039) | 27.0 (1.063) | - |
| 120 | DY1□-120S-□-□ | 34.7 (1.366) | 33.0 (1.299) | 29.5 (1.161) | 31.4 (1.236) | 32.0 (1.260) | - |
| 140 | DY1□-140S-□-□ | 39.7 (1.563) | 38.0 (1.496) | 34.5 (1.358) | 36.4 (1.433) | 37.0 (1.457) | - |

Packaging style
Embossed tape



DY SERIES

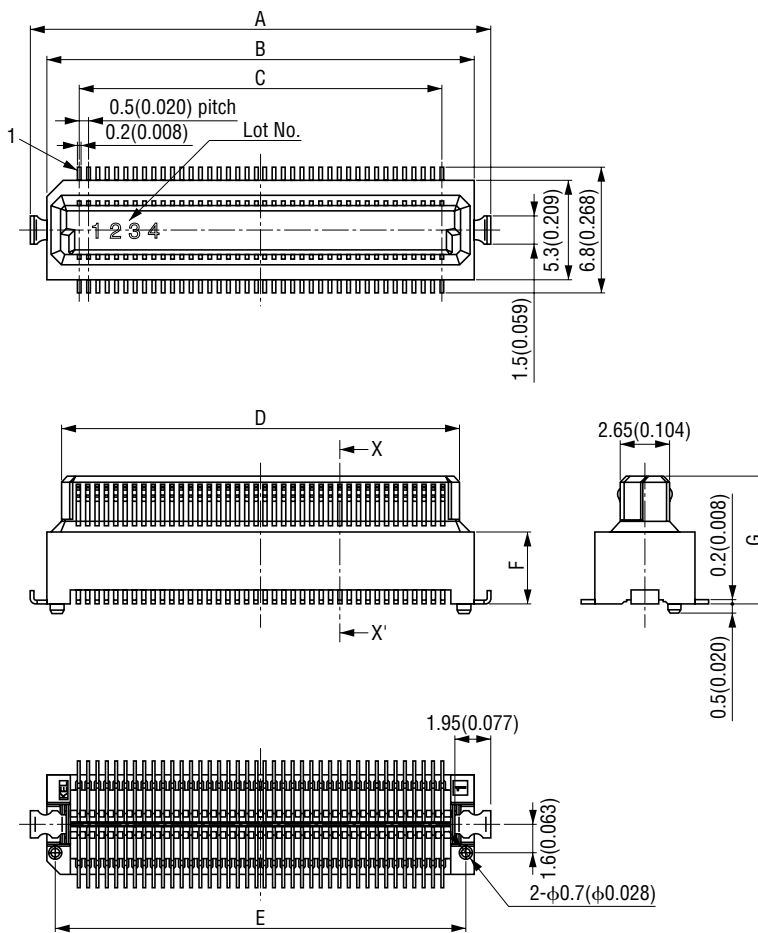
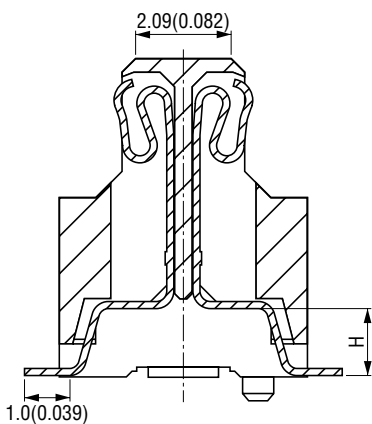
0.5mm PITCH FLOATING CONNECTOR

DY1□-□□□S-□ (Plug, For 8, 9 and 10mm stacked height)

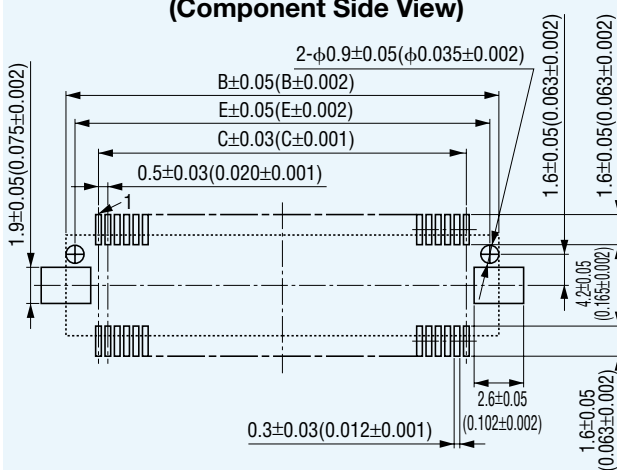
Unit:mm(inch)



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



| Packaging style |
|-----------------|
| Embossed tape |

Stack height

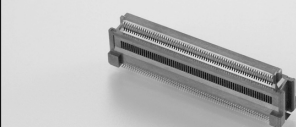
| Part Number | Stack height | F | G | H | Number of packaging |
|-------------|---------------|----------------|-----------------|----------------|---------------------|
| DY1□-□□□S-4 | 8 (0.315) | 3.8 (0.150) | 6.73 (0.265) | 1.4 (0.055) | 500 |
| DY1□-□□□S-5 | 9 (0.354) | 4.8 (0.189) | 7.73 (0.304) | 2.4 (0.094) | 500 |
| DY1□-□□□S-6 | 10 (0.394) | 5.8 (0.228) | 8.73 (0.344) | 3.4 (0.134) | 500 |

Product Table / Dimensions

| No. of contacts | Part Number | A | B | C | D | E |
|-----------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 60 | DY1□-060S-□ | 19.7 (0.776) | 18.0 (0.709) | 14.5 (0.571) | 16.4 (0.646) | 17.0 (0.669) |
| 80 | DY1□-080S-□ | 24.7 (0.972) | 23.0 (0.906) | 19.5 (0.768) | 21.4 (0.843) | 22.0 (0.866) |
| 100 | DY1□-100S-□ | 29.7 (1.169) | 28.0 (1.102) | 24.5 (0.965) | 26.4 (1.039) | 27.0 (1.063) |
| 120 | DY1□-120S-□ | 34.7 (1.366) | 33.0 (1.299) | 29.5 (1.161) | 31.4 (1.236) | 32.0 (1.260) |
| 140 | DY1□-140S-□ | 39.7 (1.563) | 38.0 (1.496) | 34.5 (1.358) | 36.4 (1.433) | 37.0 (1.457) |

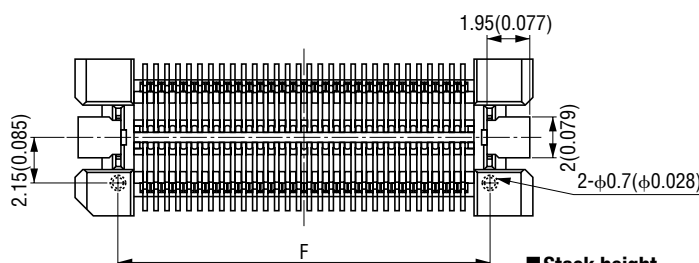
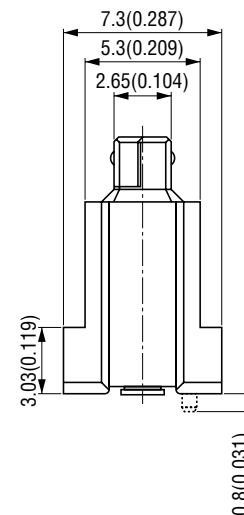
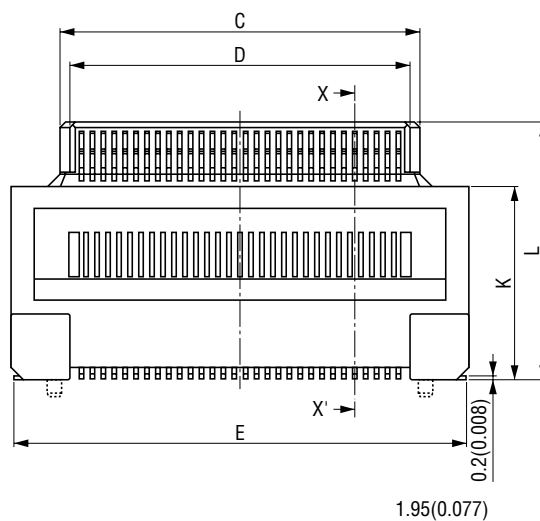
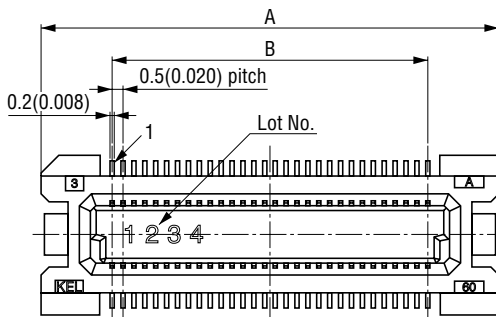
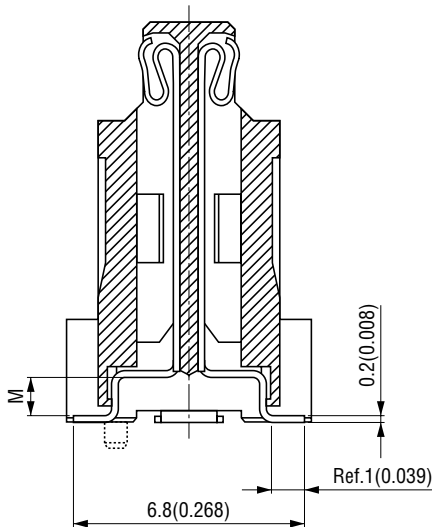
DY1□-□□□FS-□ (Plug, For 11, 12, 13 and 14mm flexible stacked height)

Plug (Straight : Flexible Stack Type)



Unit:mm(inch)

X-X' Cross Section



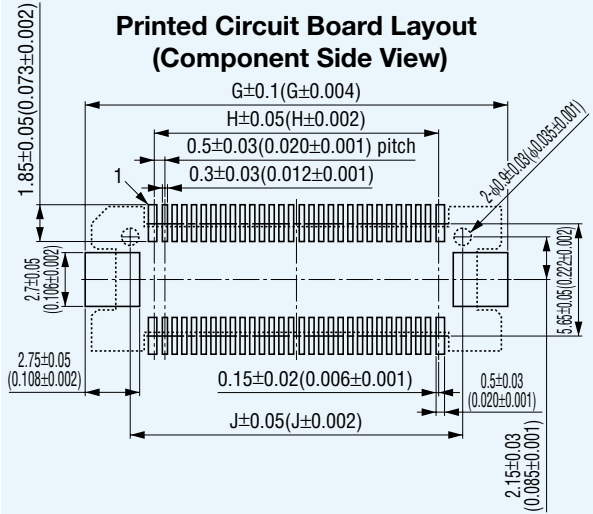
Stack height

| Part Number | Stack height | K | L | M |
|---------------|---------------|----------------|------------------|----------------|
| *DY1□-□□□FS-1 | 11 (0.433) | 6.8 (0.268) | 9.73 (0.383) | 0.3 (0.012) |
| DY1□-□□□FS-2 | 12 (0.472) | 7.8 (0.307) | 10.73 (0.422) | 1.3 (0.051) |
| DY1□-□□□FS-3 | 13 (0.512) | 8.8 (0.346) | 11.73 (0.462) | 1.3 (0.051) |
| DY1□-□□□FS-4 | 14 (0.551) | 9.8 (0.386) | 12.73 (0.501) | 1.3 (0.051) |

*60, 80, 120, 140 pin only

Packaging style

Tray



Product Table / Dimensions

| No. of contacts | Part Number | A | B | C | D | E | F | G | H | J | Number of packaging |
|-----------------|--------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|-----------------|-----------------|---------------|---------------------|
| 60 | DY1□-060FS-□ | 20.9 (0.823) | 14.5 (0.571) | 16.4 (0.646) | 15.5 (0.610) | 20.7 (0.815) | 17 (0.669) | 21.5 (0.846) | 14.5 (0.571) | 17 (0.669) | 60 |
| 80 | DY1□-080FS-□ | 25.9 (1.020) | 19.5 (0.768) | 21.4 (0.843) | 20.5 (0.807) | 25.7 (1.012) | 22 (0.866) | 26.5 (1.043) | 19.5 (0.768) | 22 (0.866) | 50 |
| 100 | DY1□-100FS-□ | 30.9 (1.217) | 24.5 (0.965) | 26.4 (1.039) | 25.5 (1.004) | 30.7 (1.209) | 27 (1.063) | 31.5 (1.240) | 24.5 (0.965) | 27 (1.063) | 50 |
| 120 | DY1□-120FS-□ | 35.9 (1.413) | 29.5 (1.161) | 31.4 (1.236) | 30.5 (1.201) | 35.7 (1.406) | 32 (1.260) | 36.5 (1.437) | 29.5 (1.161) | 32 (1.260) | 40 |
| 140 | DY1□-140FS-□ | 40.9 (1.610) | 34.5 (1.358) | 36.4 (1.433) | 35.5 (1.398) | 40.7 (1.602) | 37 (1.457) | 41.5 (1.634) | 34.5 (1.358) | 37 (1.457) | 40 |

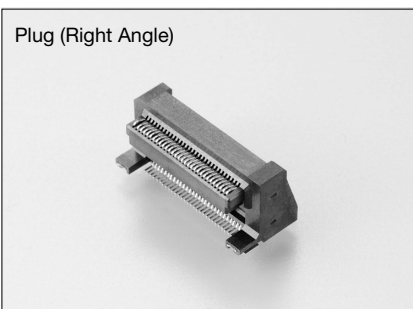
*Order accepted 500pcs. min. Please contact your local sales office for orders less than 500pcs.



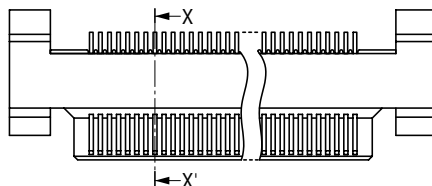
DY SERIES
0.5mm PITCH FLOATING CONNECTOR

DY1□-□□□L (Plug, Right angle)

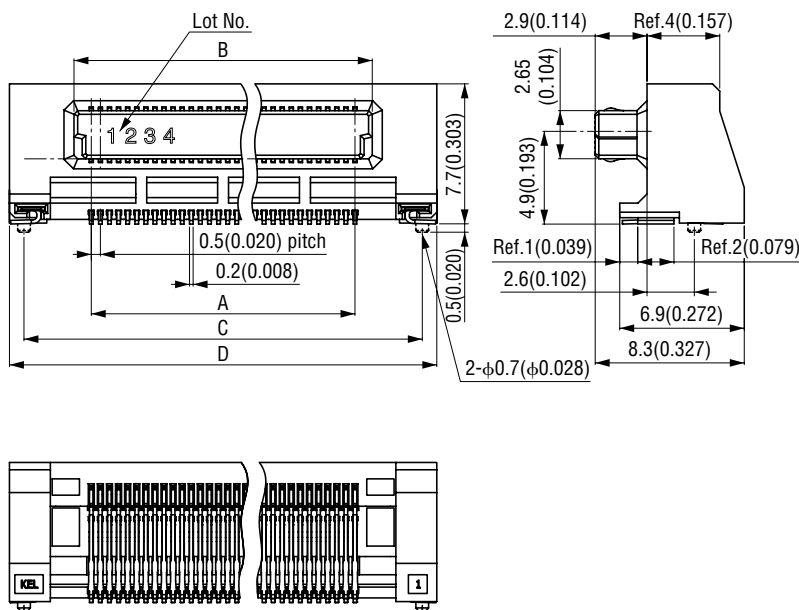
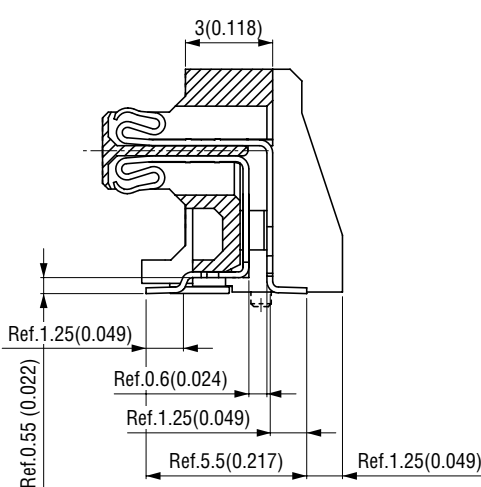
Plug (Right Angle)



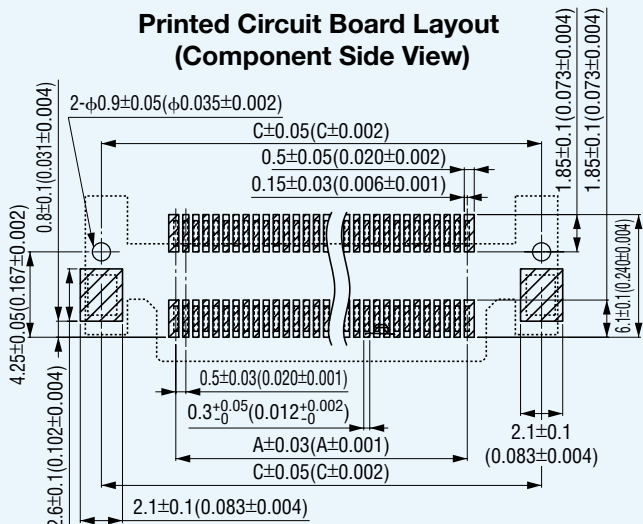
Unit:mm(inch)



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



Packaging style
Embossed tape

Product Table / Dimensions

| No. of contacts | Part Number | A | B | C | D | Number of packaging |
|-----------------|-------------|-----------------|-----------------|-----------------|-----------------|---------------------|
| 30 | DY1□-030L | 7.0 (0.276) | 8.9 (0.350) | 14.4 (0.567) | 16.0 (0.630) | 500 |
| 40 | DY1□-040L | 9.5 (0.374) | 11.4 (0.449) | 16.9 (0.665) | 18.5 (0.728) | 500 |
| 50 | DY1□-050L | 12.0 (0.472) | 13.9 (0.547) | 19.4 (0.764) | 21.0 (0.827) | 500 |
| 60 | DY1□-060L | 14.5 (0.571) | 16.4 (0.646) | 21.9 (0.862) | 23.5 (0.925) | 500 |
| 80 | DY1□-080L | 19.5 (0.768) | 21.4 (0.843) | 26.9 (1.059) | 28.5 (1.122) | 500 |
| 90 | DY1□-090L | 22.0 (0.866) | 23.9 (0.941) | 29.4 (1.157) | 31.0 (1.220) | 500 |
| 100 | DY1□-100L | 24.5 (0.965) | 26.4 (1.039) | 31.9 (1.256) | 33.5 (1.319) | 500 |
| 120 | DY1□-120L | 29.5 (1.161) | 31.4 (1.236) | 36.9 (1.453) | 38.5 (1.516) | 500 |