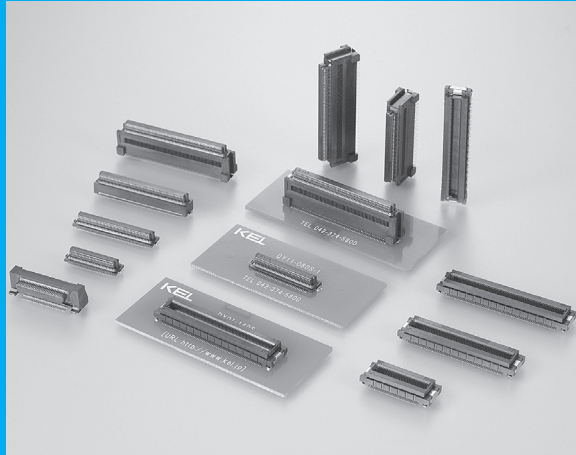


DY SERIES

0.5mm PITCH FLOATING CONNECTOR

RoHS
Compliant



FEATURES

- ▶ Location error offsets $\pm 0.5\text{mm}$ in the XY direction.
- ▶ High reliable design with effective mating length of $1.25\text{mm}(0.049'')$.
- ▶ Suction area for automated mounting provided.
- ▶ Positioning posts are optional for manual mounting.
- ▶ Wide variations of contacts (30, 40, 50, 60, 80, 100, 120 and 140 pins) are available.
- * Available pin count varies with the product type.
- ▶ Vertical and Stacked mating combinations.
- ▶ Stacked mating heights of 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14mm.
(0.197, 0.236, 0.276, 0.315, 0.354, 0.394, 0.433, 0.472, 0.512 and 0.551")
- * Available mating height varies with the product type.
- ▶ Shape of retention clip forming the large fillet.
- * Optional type with a dust cap provided on a plug side is also available.

ORDER CODE

DY0 - **S** - -

① ② ③ ④ ⑤ ⑥

*Please order in multiples of the quantity per package.

- | | |
|---|--|
| ① | [Type] Receptacle DY00 : Without positioning posts DY01 : With positioning posts |
| ② | [Number of contacts] 030 : 30 pin 040 : 40 pin 050 : 50 pin 060 : 60 pin 080 : 80 pin 100 : 100 pin 120 : 120 pin 140 : 140 pin |
| ③ | [Contact tail style] S : Straight |
| ④ | [Gold plating thickness of contact area] Omit : $0.25\ \mu\text{m}$ min. B : $0.1\ \mu\text{m}$ min. |
| ⑤ | [Number of packaging] Omit : 1,000pcs, per reel A : 500pcs, per reel |
| ⑥ | [Anti-dust tape] Omit : Without anti-dust tape BT : With anti-dust tape (excl. DY00, DY01-50 pins, and DY01-A) |

ORDER CODE

DY1 - - -

① ② ③ ④ ⑤ ⑥

*Please order in multiples of the quantity per package.

- | | |
|---|---|
| ① | [Type] Plug DY10 : Without positioning posts DY11 : With positioning posts |
| ② | [Number of contacts] (S type) 030 : 30pin 040 : 40pin 050 : 50pin 060 : 60pin 080 : 80pin 100 : 100pin 120 : 120 pin 140 : 140 pin
*The product of 30pin, 40pin and 50pin corresponds to the type of 5mm, 6mm and 7mm in the stack height.
(FS type) 060 : 60 pin 080 : 80 pin 100 : 100 pin 120 : 120 pin 140 : 140 pin
(L type) 030 : 30 pin 040 : 40 pin 050 : 50 pin 060 : 60 pin 080 : 80 pin 100 : 100 pin 120 : 120 pin 140 : 140 pin |
| ③ | [Contact tail style] S : Straight (Stacked height: 5 to 10mm) FS : Flexible straight (Stacked height: 11 to 14mm) L : Right angle |
| ④ | [Gold plating thickness of contact area] Omit : $0.25\ \mu\text{m}$ min. B : $0.1\ \mu\text{m}$ min. |
| ⑤ | [Stacked height] (S type) 1 : 5mm(0.197") 2 : 6mm(0.236") 3 : 7mm(0.276") 4 : 8mm(0.315") 5 : 9mm(0.354") 6 : 10mm(0.394")
(FS type) 1 : 11mm(0.433") 2 : 12mm(0.472") 3 : 13mm(0.512") 4 : 14mm(0.551") |
| ⑥ | [Number of packaging] (S type) Omit : 500pcs, per reel (Stacked height 6 to 10mm) 1,000pcs, per reel (Stacked height 5mm)
A : 500pcs, per reel (Stacked height 5mm) |

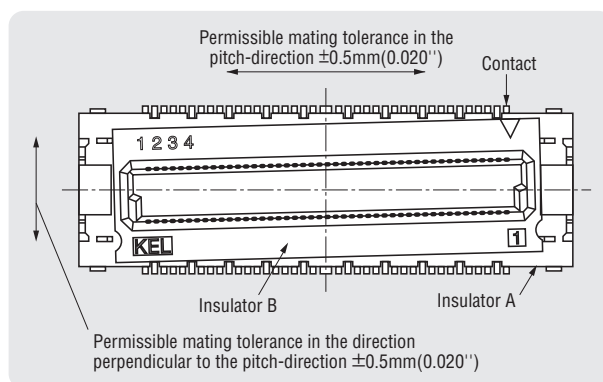
SPECIFICATIONS

Material and plating		Electrical Characteristics	
Insulator material	Glass-filled LCP (UL94V-0), Black	Current rating	0.4A per contact (Stacked Mating) 0.3A per contact (Vertical Mating)
Contact material	Copper alloy	Contact resistance	80mΩ max. (Stacked Mating) 100mΩ max. (Vertical Mating)
Contact plating	Gold over Nickel	Dielectric withstanding voltage	200V AC for 1 minute
Retention clip material	Copper alloy	Insulation resistance	100MΩ min. at 250V DC
Retention clip plating	Gold over Nickel	Operating temperature	-40°C to +85°C

*Regarding the rated current of the DY series, it is possible to design a current capacity exceeding the standard 0.4 A / pin. i.e. 0.5 A / pin.
Please contact your local KEL sales office.

Floating Connector

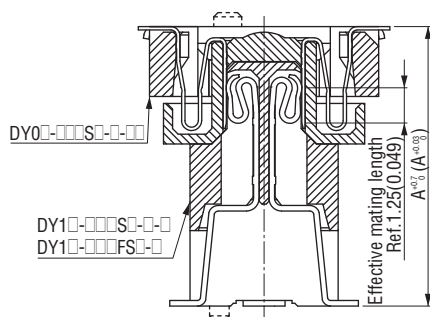
When the connector is mounted on the printed circuit board, a location error in the two directions of horizontal and vertical(XY direction) may occur at both connectors. In addition, if each printed circuit board is fixed to a case by screws after mating connectors, the connectors may have to compensate 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(0.020") fine pitch connector with $\pm 0.5\text{mm}(0.020")$ floating mechanism and ensures sufficient compensation for location errors.



Mating Drawing

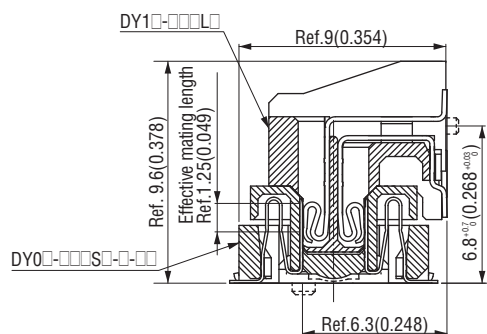
Unit : mm(inch)

Stacked Mating



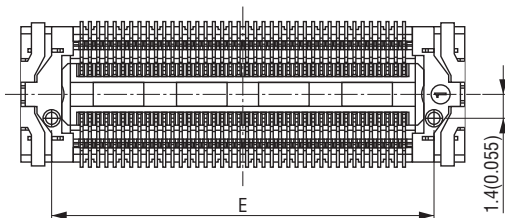
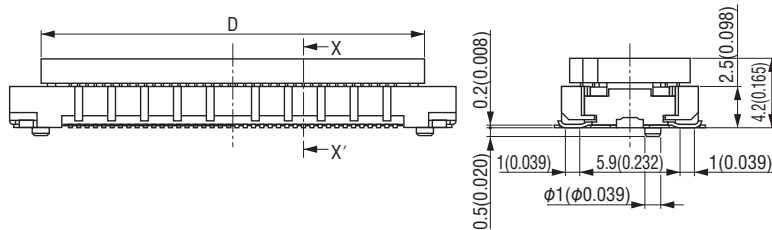
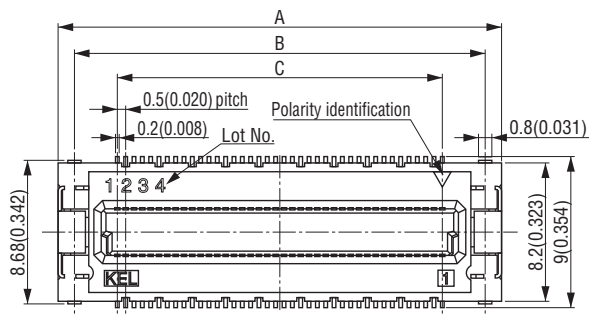
Part Number	A
DY1□-□□□S□-1-□	5(0.197)
DY1□-□□□S□-2	6(0.236)
DY1□-□□□S□-3	7(0.276)
DY1□-□□□S□-4	8(0.315)
DY1□-□□□S□-5	9(0.354)
DY1□-□□□S□-6	10(0.394)
DY1□-□□□FS□-1	11(0.433)
DY1□-□□□FS□-2	12(0.472)
DY1□-□□□FS□-3	13(0.512)
DY1□-□□□FS□-4	14(0.551)

Vertical Mating

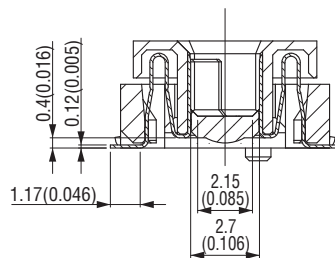


DY0- -S- - (Receptacle, Straight)

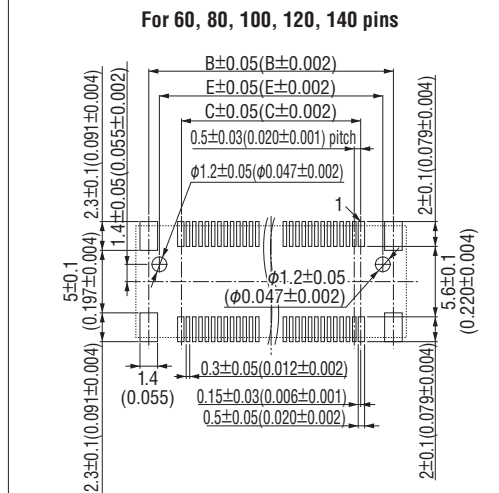
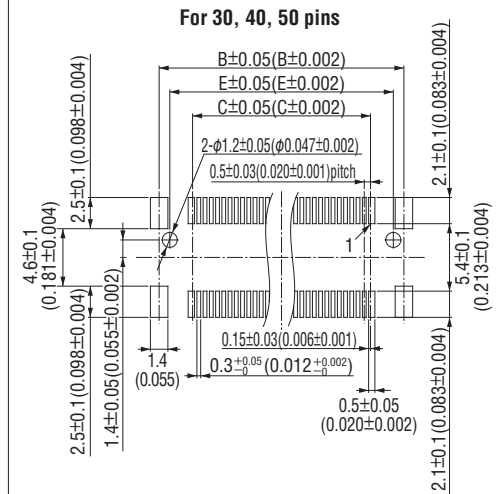
Unit : mm(inch)



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



Packaging style

Embossed tape

Product Table

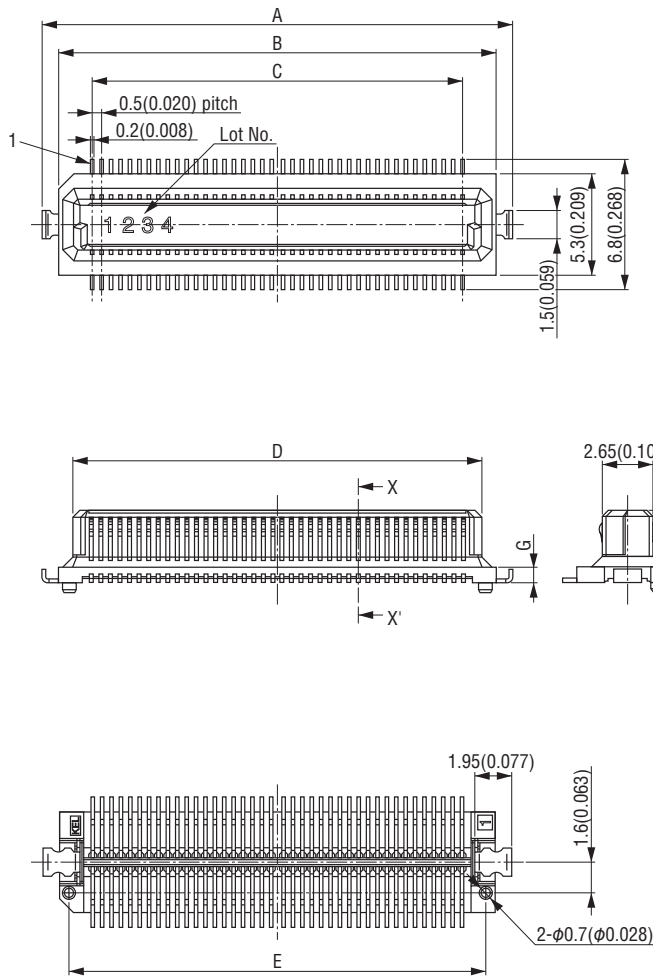
Part Number	No. of packaging
DY0- -S- -	1,000
DY0- -S- -A	500

Product Table / Dimensions

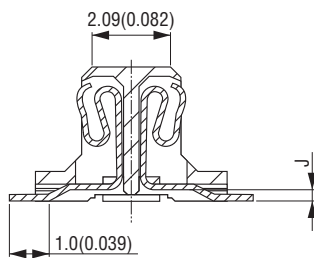
No. of contacts	Part Number	A	B	C	D	E
30	DY0-030S- -	14.2 (0.559)	12.2 (0.480)	7.0 (0.276)	10.5 (0.413)	10.5 (0.413)
40	DY0-040S- -	16.7 (0.657)	14.7 (0.579)	9.5 (0.374)	13.0 (0.512)	13.0 (0.512)
50	DY0-050S- -	19.2 (0.756)	17.2 (0.677)	12.0 (0.472)	15.5 (0.610)	15.5 (0.610)
60	DY0-060S- -	21.7 (0.854)	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)
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, Straight, For 5, 6 and 7mm stacked height)

Unit : mm(inch)

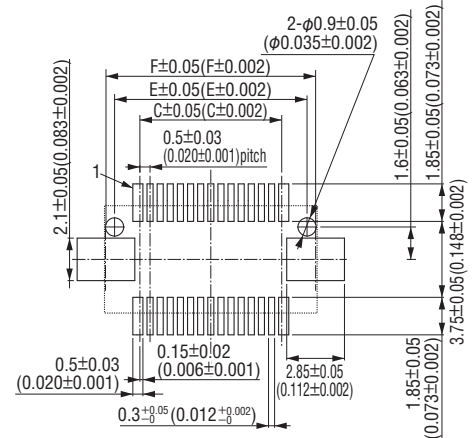


X-X' Cross Section

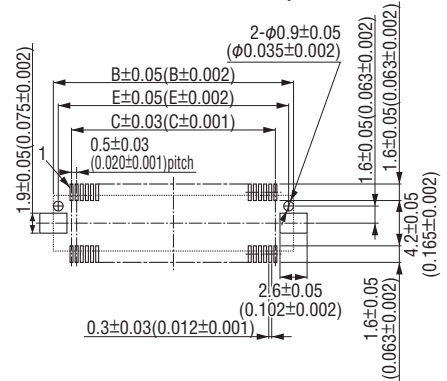


Printed Circuit Board Layout (Component Side View)

For 30, 40, 50 pins



For 60, 80, 100, 120, 140 pins



Packaging style

Embossed tape

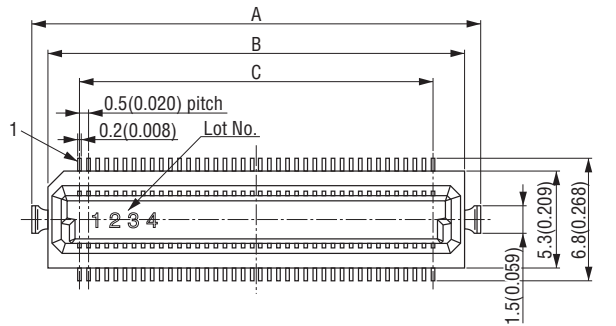
Part Number	Stacked height	G	H	J	No. of packaging
DY1□-□□□S□-1	5.0 (0.197)	0.8 (0.031)	3.73 (0.147)	0.27 (0.011)	1,000
DY1□-□□□S□-1-A	5.0 (0.197)	0.8 (0.031)	3.73 (0.147)	0.27 (0.011)	500
DY1□-□□□S□-2	6.0 (0.236)	1.8 (0.071)	4.73 (0.186)	1.27 (0.050)	500
DY1□-□□□S□-3	7.0 (0.276)	2.8 (0.110)	5.73 (0.226)	2.27 (0.089)	500

Product Table / Dimensions

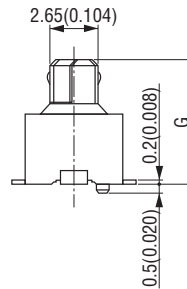
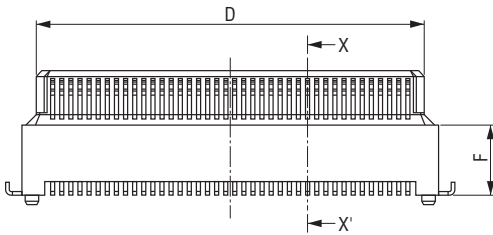
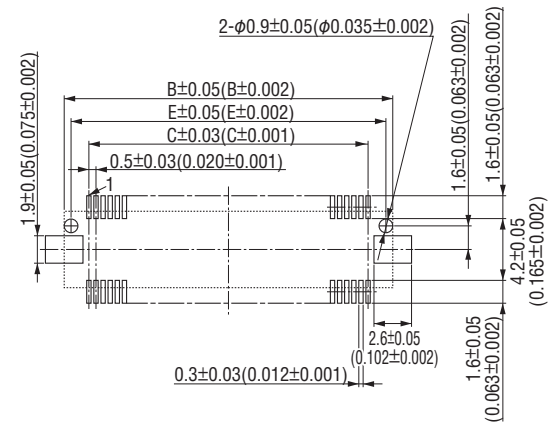
No. of contacts	Part Number	A	B	C	D	E	F
30	DY1□-030S□-□-□	12.2 (0.480)	10.5 (0.413)	7.0 (0.276)	8.9 (0.350)	9.5 (0.374)	10.35 (0.407)
40	DY1□-040S□-□-□	14.7 (0.579)	13.0 (0.512)	9.5 (0.374)	11.4 (0.449)	12.0 (0.472)	12.85 (0.506)
50	DY1□-050S□-□-□	17.2 (0.677)	15.5 (0.610)	12.0 (0.472)	13.9 (0.547)	14.5 (0.571)	15.35 (0.604)
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□-□□□S□-□ (Plug, Straight, For 8, 9 and 10mm stacked height)

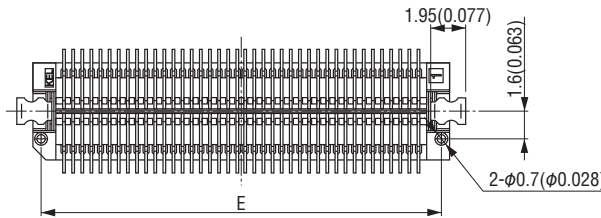
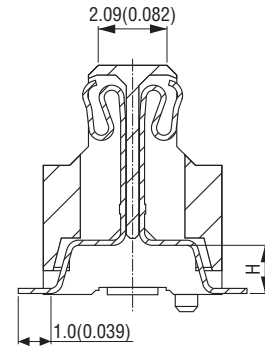
Unit : mm(inch)



Printed Circuit Board Layout (Component Side View)



X-X' Cross Section



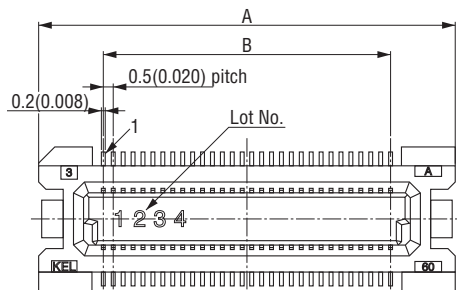
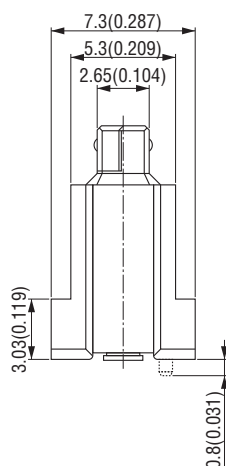
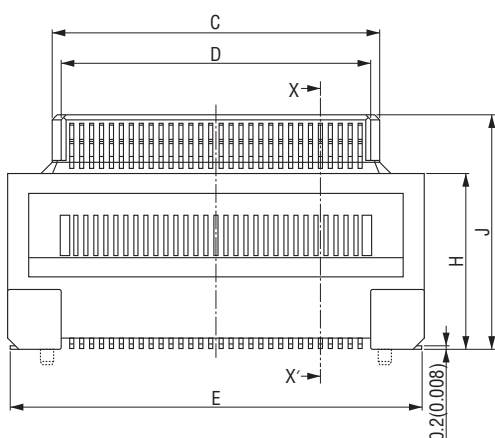
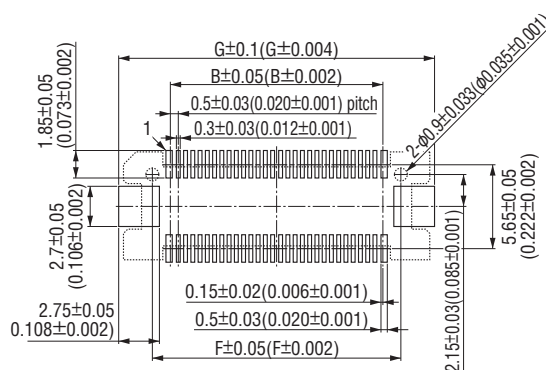
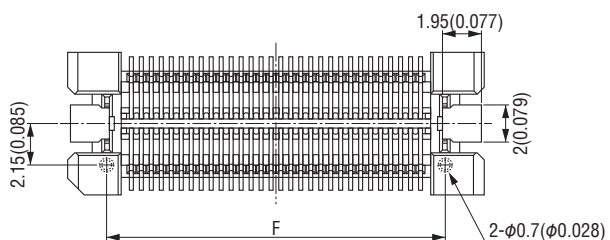
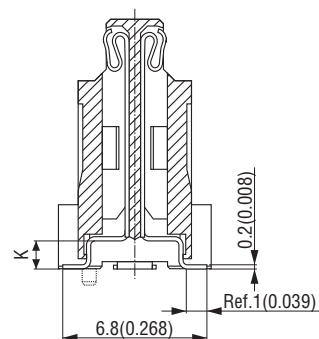
Packaging style

Embossed tape

Part Number	Stacked height	F	G	H	No. of packaging
DY1□-□□□S□-4	8.0 (0.315)	3.8 (0.150)	6.73 (0.265)	1.4 (0.055)	500
DY1□-□□□S□-5	9.0 (0.354)	4.8 (0.189)	7.73 (0.304)	2.4 (0.094)	500
DY1□-□□□S□-6	10.0 (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)


Printed Circuit Board Layout (Component Side View)

X-X' Cross Section


Part Number	Stacked height	H	J	K
DY1□-□□□FS□-1	11.0 (0.433)	6.8 (0.268)	9.73 (0.383)	0.3 (0.012)
DY1□-□□□FS□-2	12.0 (0.472)	7.8 (0.307)	10.73 (0.422)	1.3 (0.051)
DY1□-□□□FS□-3	13.0 (0.512)	8.8 (0.346)	11.73 (0.462)	1.3 (0.051)
DY1□-□□□FS□-4	14.0 (0.551)	9.8 (0.386)	12.73 (0.501)	1.3 (0.051)

Packaging style

Tray

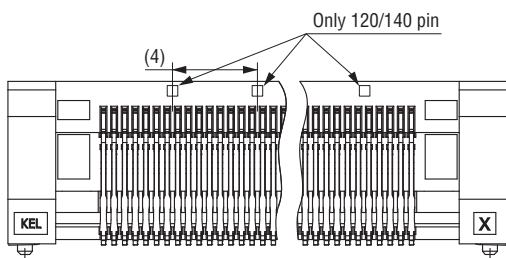
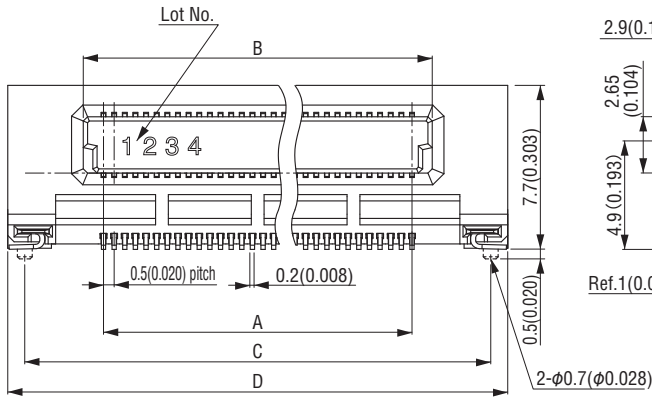
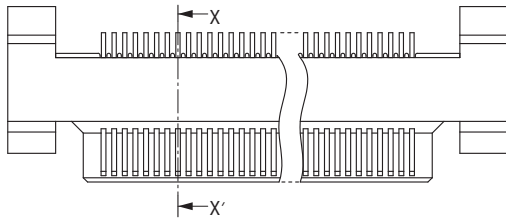
Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D	E	F	G	No. 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)	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)	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)	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)	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)	40

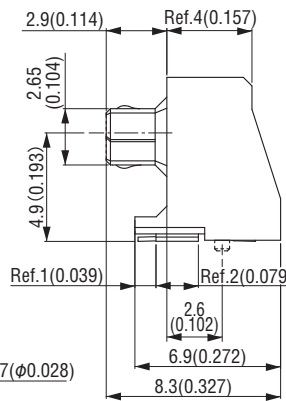
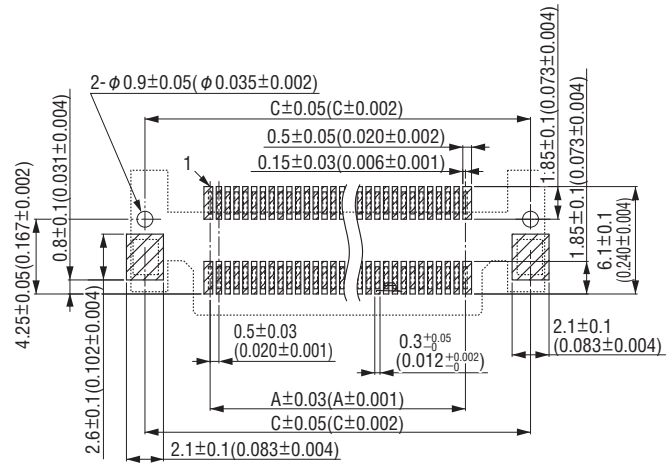
The connectors are supplied in trays. Please order a minimum of 500 pieces and in multiples of the quantity per package.

DY1□-□□□L□ (Plug, Right angle)

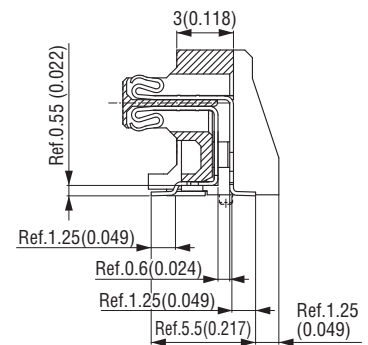
Unit : mm(inch)



Printed Circuit Board Layout (Component Side View)



X-X' Cross Section



Part Number	No. of packaging
DY1□-□□□L	500
DY1□-□□□LB	600

Packaging style
Embossed tape

Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D
30	DY1□-030L□	7.0 (0.276)	8.9 (0.350)	14.4 (0.567)	16.0 (0.630)
40	DY1□-040L□	9.5 (0.374)	11.4 (0.449)	16.9 (0.665)	18.5 (0.728)
50	DY1□-050L□	12.0 (0.472)	13.9 (0.547)	19.4 (0.764)	21.0 (0.827)
60	DY1□-060L□	14.5 (0.571)	16.4 (0.646)	21.9 (0.862)	23.5 (0.925)
80	DY1□-080L□	19.5 (0.768)	21.4 (0.843)	26.9 (1.059)	28.5 (1.122)
100	DY1□-100L□	24.5 (0.965)	26.4 (1.039)	31.9 (1.256)	33.5 (1.319)
120	DY1□-120L□	29.5 (1.161)	31.4 (1.236)	36.9 (1.453)	38.5 (1.516)
140	DY1□-140L□	34.5 (1.358)	36.4 (1.433)	41.9 (1.650)	43.5 (1.713)