

# DT-E SERIES

RoHS  
Compliant

COMPLIANT WITH SATA Rev3.0 REQUIREMENTS, 0.5mm PITCH FLOATING CONNECTOR / TYPE WITH POWER TERMINAL



## FEATURES

- ▶ Compatible with high-speed serial transmission equivalent to SATA standard. The transmission characteristics meet all the required standards of SATA Rev3.0. (Differential impedance:  $100\Omega \pm 15\%$ )
- ▶ With 4 power contacts (6.0A per contact)
- ▶ The floating amount is secured at  $\pm 0.7\text{mm}$  in the XY direction.
- ▶ Highly reliable design with effective mating length of 1.5mm.
- ▶ With or without positioning posts.
- ▶ Seven types of signal terminals are available, ranging from 30 to 140 pins.
- ▶ The connection type is stacked mating.
- ▶ Stack heights range from 8mm to 30mm.

## ORDER CODE

**DT0**   **E-**       **S-T**

①                      ②                      ③                      ④

\*Please order in multiples of the quantity per package.

- ① **[Type]** Receptacle **DT00E** : Without positioning posts **DT01E** : With positioning posts
- ② **[Number of contacts]** **030** : 30pin **040** : 40pin **060** : 60pin **080** : 80pin **100** : 100pin **120** : 120pin **140** : 140pin
- ③ **[Contact tail style]** **S** : Straight
- ④ **[Anti-dust tape]** **T** : With anti-dust tape

## ORDER CODE

**DT1**   **E-**       **S-**     **-T**

①                      ②                      ③                      ④                      ⑤

\*Please order in multiples of the quantity per package.

- ① **[Type]** Plug **DT10E** : Without positioning posts **DT11E** : With positioning posts
- ② **[Number of contacts]** **030** : 30pin **040** : 40pin **060** : 60pin **080** : 80pin **100** : 100pin **120** : 120pin **140** : 140pin
- ③ **[Contact tail style]** **S** : Straight
- ④ **[Stacked height]** (DT0 E-   S-T Mated situation) **8** : 8mm **10** : 10mm **15** : 15mm **20** : 20mm  
(DT0 E-   FS-10-T Mated situation) **8** : 18mm **10** : 20mm **15** : 25mm **20** : 30mm
- ⑤ **[Anti-dust tape]** **T** : With anti-dust tape

\*For details on DT0 E-   FS-10-T, please refer to the separate "DT-E-FS series" catalog.

## SPECIFICATIONS

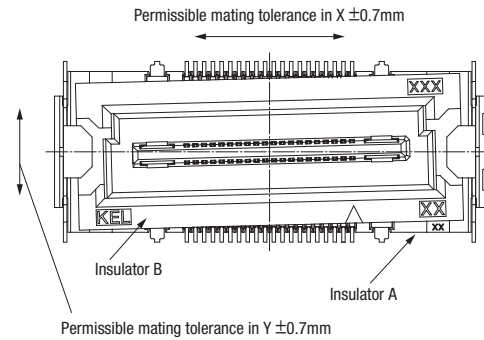
Material and plating		Electrical characteristics	
Insulator material	Glass-filled LCP(UL94V-0), Black	Rated current *1	0.4A per contact (Signal contact) 6.0A per contact (Power contact)
Signal/Power contact material	Copper alloy		
Signal/Power contact plating	(Contact area) Gold over Nickel (Terminal area) Gold over Nickel	Contact resistance	80m $\Omega$ max. (Signal contact) 20m $\Omega$ max. (Power contact)
Retention clip material	Copper alloy	Dielectric withstanding voltage	200V AC for 1 minute
Retention clip plating	Tin over Nickel	Insulation resistance	100M $\Omega$ min. at 250V DC
Material of anti-dust tape	Polyimide	Operating temperature*2	-40°C to +105°C

\*1 The rated current may be higher than the indicated current capacity depending on the number of contacts and the contact tail style. Please contact our sales representative for details.

\*2 If you require a high heat resistant type (125°C compatible product), please contact our sales representative.

## Floating structure

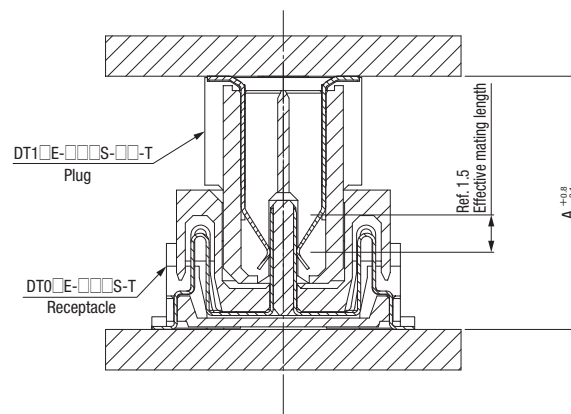
When the connector is mounted on the printed circuit board, a position error in the two directions of horizontal and vertical (XY direction) may occur at both connectors. In addition, if each printed circuit board is fixed to a case by screws after mating connectors, the connectors may have to compensate for the position error because a gap occurs during screwing 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 DT-E series is a 0.5mm fine pitch connector with  $\pm 0.7\text{mm}$  floating structure and ensures sufficient compensation for position errors.



## Mating drawing

Unit : mm

### Stacked mating

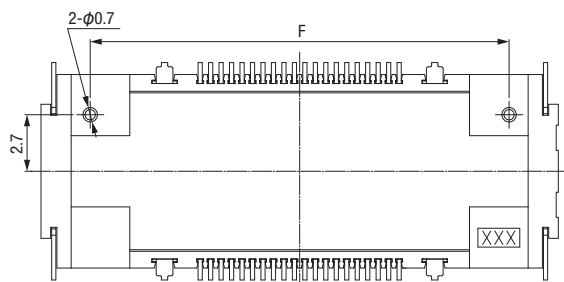
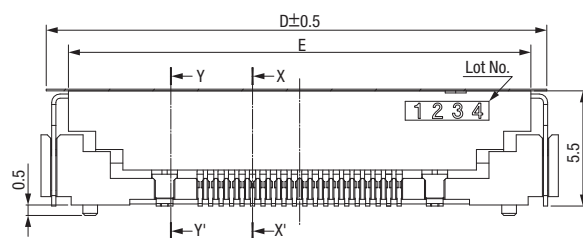
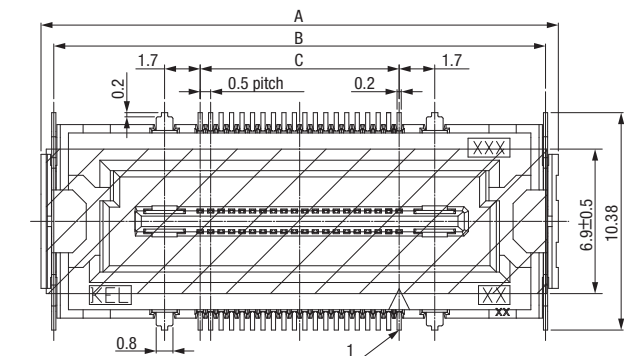
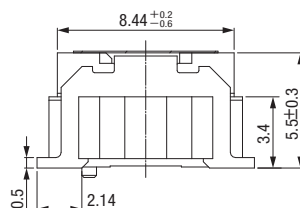
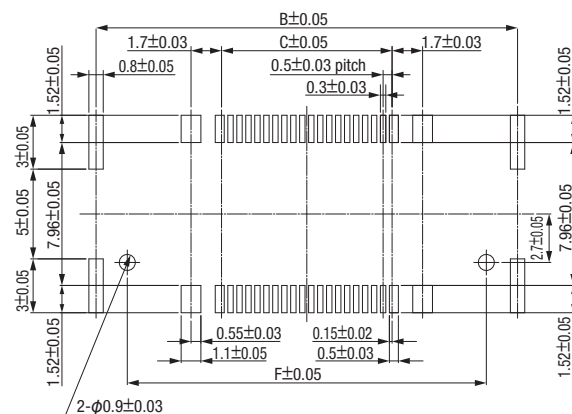
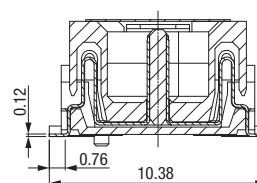
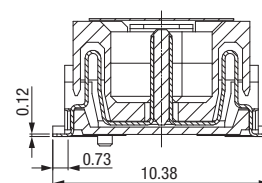


### Product table / Dimensions

Part number	A
DT1□E-□□□S-8-T	8
DT1□E-□□□S-10-T	10
DT1□E-□□□S-15-T	15
DT1□E-□□□S-20-T	20

## Stacked mating / Product table

Stacked height	Part number		Amount of movement	No. of contacts						
	Receptacle	Plug		30	40	60	80	100	120	140
8mm	DT0□E-□□□S-T	DT1□E-□□□S-8-T	$\pm 0.7\text{mm}$	✓	✓	✓	✓	✓	✓	✓
10mm		DT1□E-□□□S-10-T		✓	✓	✓	✓	✓	✓	✓
15mm		DT1□E-□□□S-15-T		✓	✓	✓	✓	✓	✓	✓
18mm	DT0□E-□□□FS-10-T	DT1□E-□□□S-8-T	$\pm 1.2\text{mm}$	✓	✓	✓	✓	✓	✓	✓
20mm	DT0□E-□□□S-T	DT1□E-□□□S-20-T	$\pm 0.7\text{mm}$	✓	✓	✓	✓	✓	✓	✓
25mm	DT0□E-□□□FS-10-T	DT1□E-□□□S-10-T	$\pm 1.2\text{mm}$	✓	✓	✓	✓	✓	✓	✓
25mm		DT1□E-□□□S-15-T		✓	✓	✓	✓	✓	✓	✓
30mm		DT1□E-□□□S-20-T		✓	✓	✓	✓	✓	✓	✓


**Printed Circuit Board layout (Component side view)**

**X-X' Cross section**

**Y-Y' Cross section**


Packaging style

Embossed tape

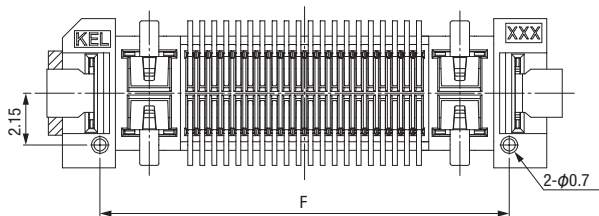
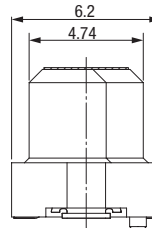
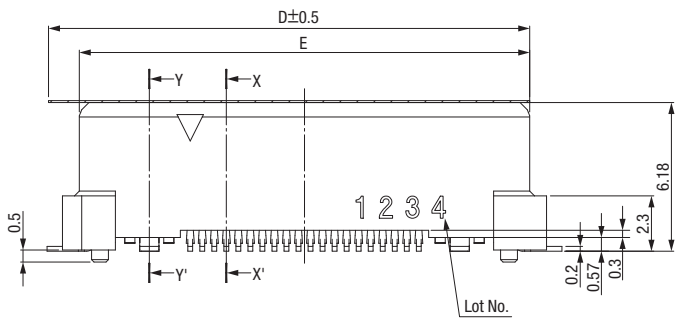
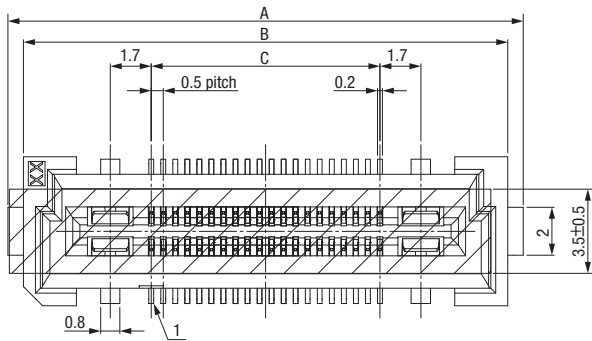
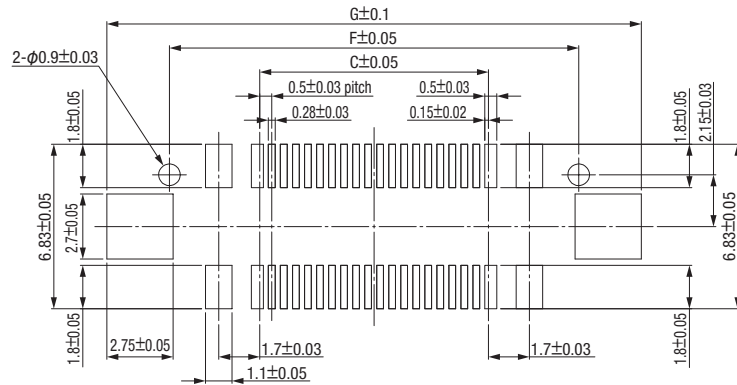
**Product table / Dimensions**

No. of contacts	Part number	A	B	C	D	E	F	No. of packaging
30	DT0□E-030S-T	22.2	20.98	7.0	21.4	19.58	17.5	820
40	DT0□E-040S-T	24.7	23.48	9.5	23.9	22.08	20.0	820
60	DT0□E-060S-T	29.7	28.48	14.5	28.9	27.08	25.0	820
80	DT0□E-080S-T	34.7	33.48	19.5	33.9	32.08	30.0	820
100	DT0□E-100S-T	39.7	38.48	24.5	38.9	37.08	35.0	820
120	DT0□E-120S-T	44.7	43.48	29.5	43.9	42.08	40.0	820
140	DT0□E-140S-T	49.7	48.48	34.5	48.9	47.08	45.0	820

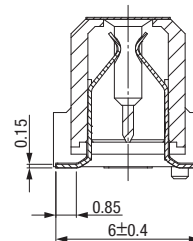
# DT1□E-□□□S-8-T (Plug, Straight, With power contacts)

Unit : mm

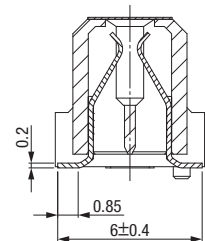
## ▶ Printed Circuit Board layout (Component side view)



## X-X' Cross section



## Y-Y' Cross section

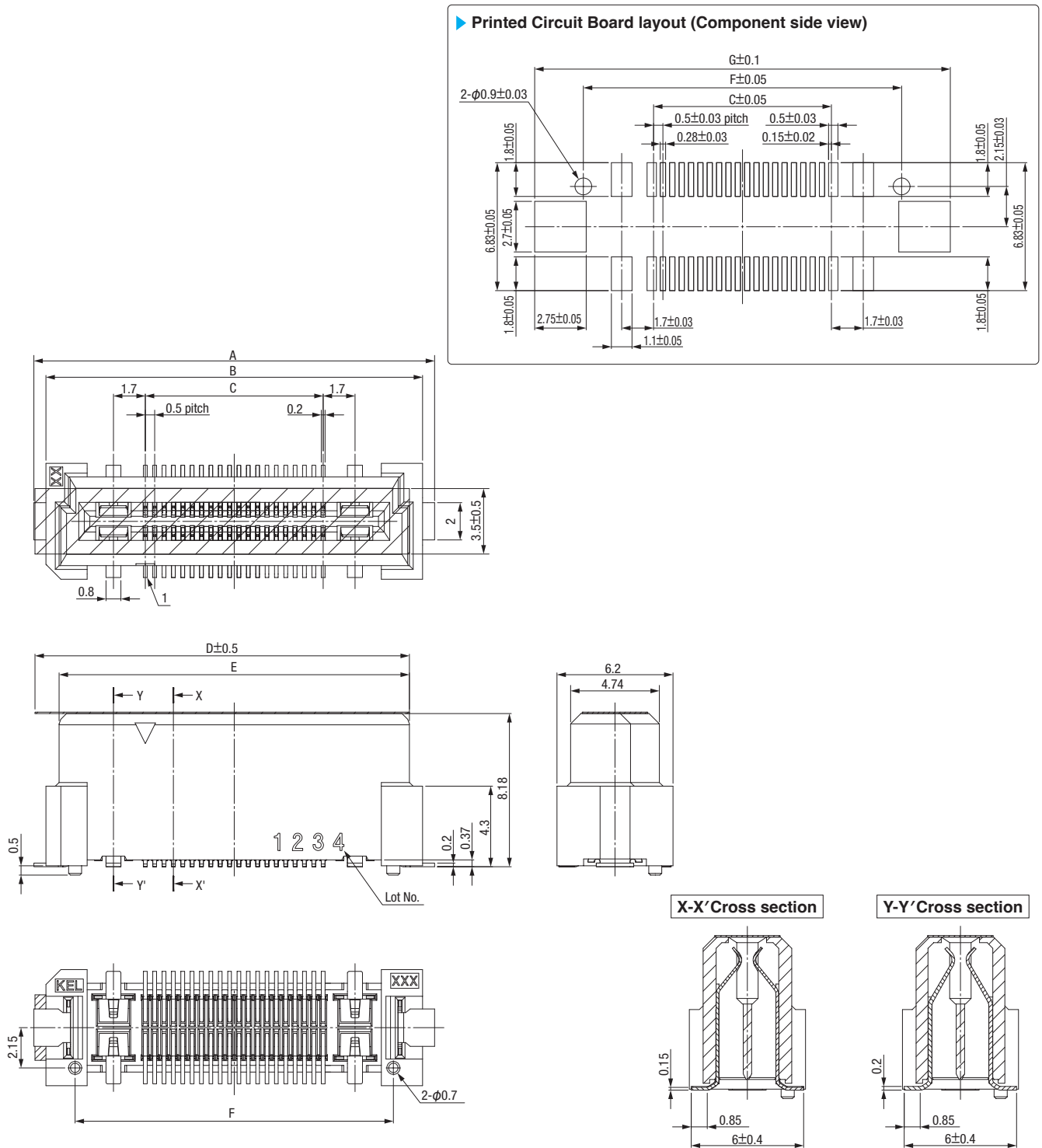


Packaging style

Embossed tape

## ▶ Product table / Dimensions

No. of contacts	Part number	A	B	C	D	E	F	G	No. of packaging
30	DT1□E-030S-8-T	18.9	17.62	7.0	17.5	16.22	14.5	19.7	750
40	DT1□E-040S-8-T	21.4	20.12	9.5	20.0	18.72	17.0	22.2	750
60	DT1□E-060S-8-T	26.4	25.12	14.5	25.0	23.72	22.0	27.2	750
80	DT1□E-080S-8-T	31.4	30.12	19.5	30.0	28.72	27.0	32.2	750
100	DT1□E-100S-8-T	36.4	35.12	24.5	35.0	33.72	32.0	37.2	750
120	DT1□E-120S-8-T	41.4	40.12	29.5	40.0	38.72	37.0	42.2	750
140	DT1□E-140S-8-T	46.4	45.12	34.5	45.0	43.72	42.0	47.2	750



X-X' Cross section

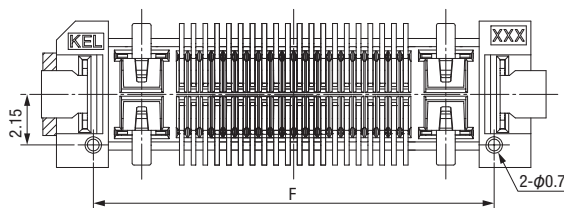
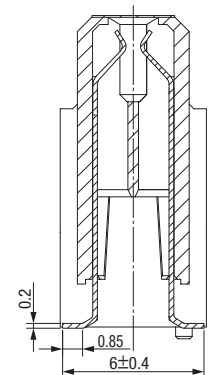
Y-Y' Cross section

Packaging style

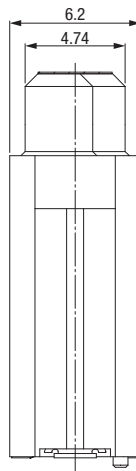
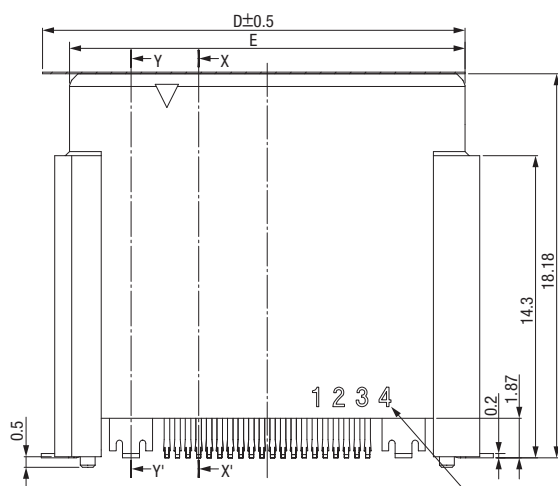
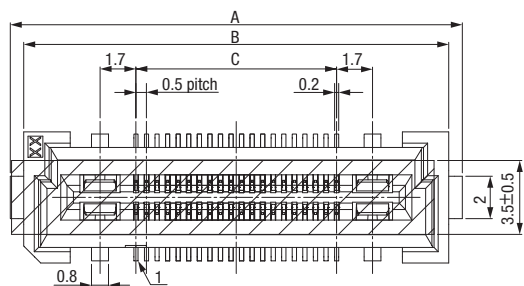
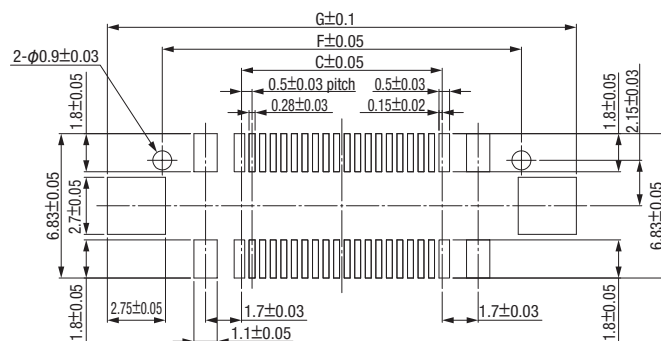
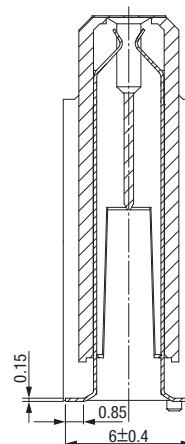
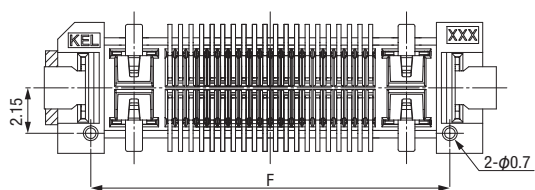
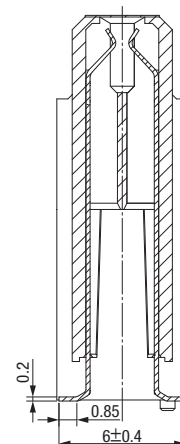
Embossed tape

## ► Product table / Dimensions

No. of contacts	Part number	A	B	C	D	E	F	G	No. of packaging
30	DT1□E-030S-10-T	18.9	17.62	7.0	17.5	16.22	14.5	19.7	600
40	DT1□E-040S-10-T	21.4	20.12	9.5	20.0	18.72	17.0	22.2	600
60	DT1□E-060S-10-T	26.4	25.12	14.5	25.0	23.72	22.0	27.2	600
80	DT1□E-080S-10-T	31.4	30.12	19.5	30.0	28.72	27.0	32.2	600
100	DT1□E-100S-10-T	36.4	35.12	24.5	35.0	33.72	32.0	37.2	600
120	DT1□E-120S-10-T	41.4	40.12	29.5	40.0	38.72	37.0	42.2	600
140	DT1□E-140S-10-T	46.4	45.12	34.5	45.0	43.72	42.0	47.2	600

[illegible]

No. of contacts	Part number	A	B	C	D	E	F	G	No. of packaging
30	DT1□E-030S-15-T	18.9	17.62	7.0	17.5	16.22	14.5	19.7	360
40	DT1□E-040S-15-T	21.4	20.12	9.5	20.0	18.72	17.0	22.2	360
60	DT1□E-060S-15-T	26.4	25.12	14.5	25.0	23.72	22.0	27.2	360
80	DT1□E-080S-15-T	31.4	30.12	19.5	30.0	28.72	27.0	32.2	360
100	DT1□E-100S-15-T	36.4	35.12	24.5	35.0	33.72	32.0	37.2	360
120	DT1□E-120S-15-T	41.4	40.12	29.5	40.0	38.72	37.0	42.2	360
140	DT1□E-140S-15-T	46.4	45.12	34.5	45.0	43.72	42.0	47.2	360

**▶ Printed Circuit Board layout (Component side view)**

**X-X' Cross section**

**Y-Y' Cross section**


Packaging style

Embossed tape

**▶ Product table / Dimensions**

No. of contacts	Part number	A	B	C	D	E	F	G	No. of packaging
30	DT1□E-030S-20-T	18.9	17.62	7.0	17.5	16.22	14.5	19.7	260
40	DT1□E-040S-20-T	21.4	20.12	9.5	20.0	18.72	17.0	22.2	260
60	DT1□E-060S-20-T	26.4	25.12	14.5	25.0	23.72	22.0	27.2	260
80	DT1□E-080S-20-T	31.4	30.12	19.5	30.0	28.72	27.0	32.2	260
100	DT1□E-100S-20-T	36.4	35.12	24.5	35.0	33.72	32.0	37.2	260
120	DT1□E-120S-20-T	41.4	40.12	29.5	40.0	38.72	37.0	42.2	260
140	DT1□E-140S-20-T	46.4	45.12	34.5	45.0	43.72	42.0	47.2	260