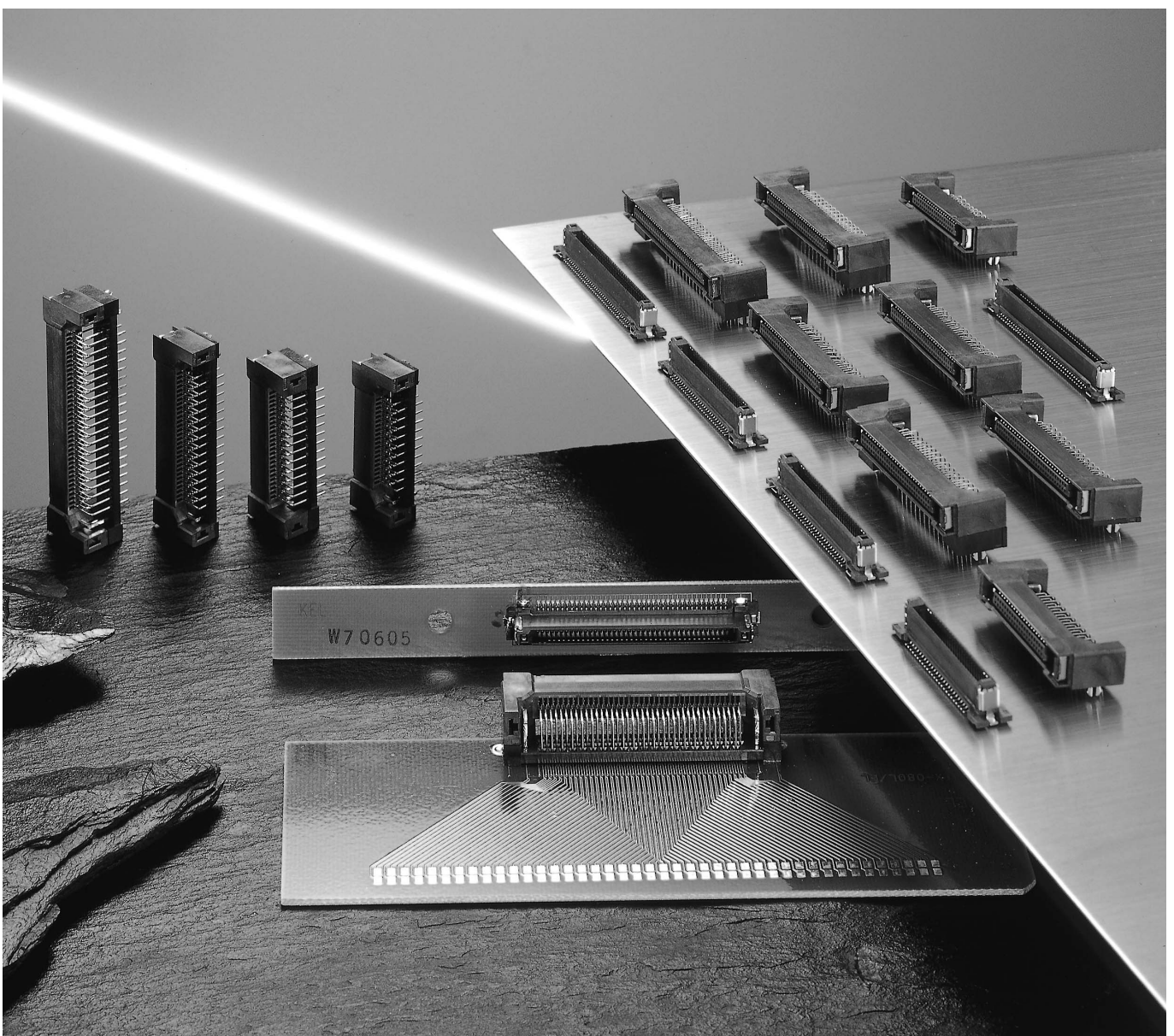
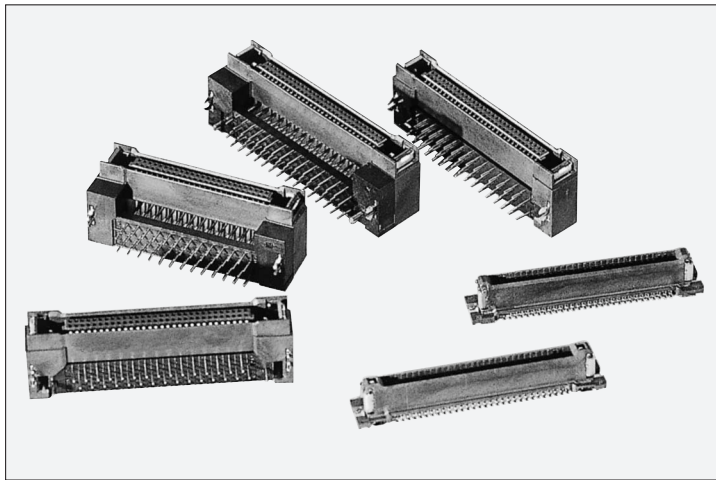


# NEXT GENERATION CONNECTOR FOR MEDIA DEVICES

## 1mm PITCH 2 PIECE CONNECTOR

# DJ SERIES



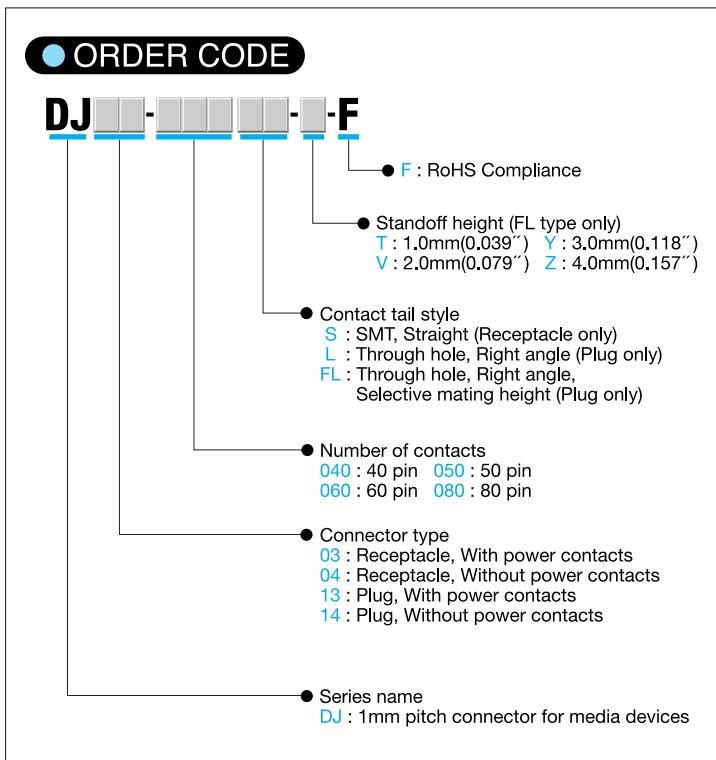


### FEATURES

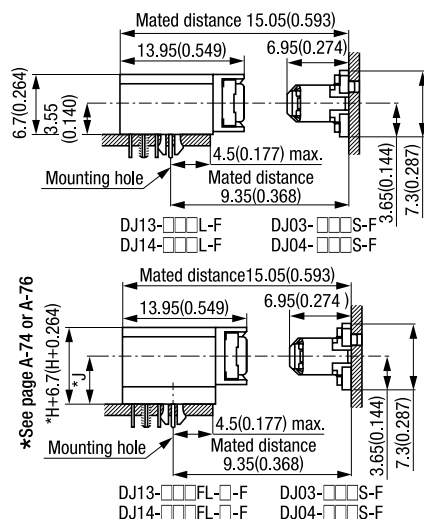
- 1mm (0.039") pitch connector for media devices
- Power contacts have a 5A (max.) current rating
- Available frame ground with connection through conductive mounting hardware, frame ground contacts and SMT retention clips
- Signal contacts are designed with 2-level sequences (8 longer contacts, 0.75mm (0.030") difference)
- 2.15mm (0.085") at shorter signal contacts for effective contact displacement range
- ±1.5mm (0.059") in X and Y axes for blind mating
- Selective 4 mating height connectors for removable FDD, HDD, CD-ROM, DVD and other media devices
- RoHS compliance

### SPECIFICATIONS

- Insulator : Glass-filled LCP (UL 94V-0), Black
- Alignment plate : Glass-filled 46 Nylon (UL 94V-0), Black
- Material : Signal contact ; Phosphor Bronze  
Power contact ; Copper alloy  
Mounting hardware ; Copper alloy  
Frame ground contact ; Copper alloy  
SMT retention clip ; Copper alloy
- Plating : Signal contact ; 0.1μm min. Gold over Nickel (Contact area)  
2μm min. Tin copper over Nickel (Terminal area / DJ1□)  
0.03μm min. Gold over Nickel (Terminal area / DJ0□)  
Power contact ; 0.1μm min. Gold over Nickel (Contact area)  
2μm min. Tin copper over Nickel (Terminal area / DJ1□)  
0.03μm min. Gold over Nickel (Terminal area / DJ0□)  
Mounting hardware ; 2μm min. Tin copper over Nickel  
Frame ground contact ; 2 to 4μm Nickel  
SMT retention clip ; 0.03μm min. Gold over Nickel (Terminal area / DJ0□)  
2μm min. Tin copper over Nickel (Terminal area / DJ1□)
- Current rating : Signal contact ; 0.5A per contact  
Power contact ; 5A per contact
- Contact resistance : Signal contact ; 40mΩ max.  
Power contact ; 15mΩ max.
- Dielectric withstanding voltage : 300V AC for 1 minute
- Insulation resistance : 1,000MΩ min. at 250V DC
- Operating temperature : -55°C to +85°C



### MATING VARIATIONS



### PRODUCT OUTLINE

DJ series is a 1mm pitch, 2 piece connector system which was developed for the next generation of removable media devices.

The DJ series offers Straight/SMT type (Receptacle) for the removable media Device side, we also offer Right angle/Through hole and Right angle/SMT types (Plug) in 5 variations (standard, 1mm, 2mm, 3mm and 4mm) so that you can freely choose the mating position on the main board side.

The superior design of our connectors is helpful in your system's design. Example: the guide structure for blind mating, structures that protect contacts from damage during mismatched insertion, and mounting hardware to increase mounted strength of connectors.

This connector can be used in "Hot Plug" applications for HDD, FDD, CD-ROM drives and DVD, etc. with power supply turned on and frame ground implemented between main board and devices.

KEL also provides this series "with power contacts". These contacts are effective for use in battery pack applications. The DJ series connector is designed exclusively for removable media devices and battery packs.

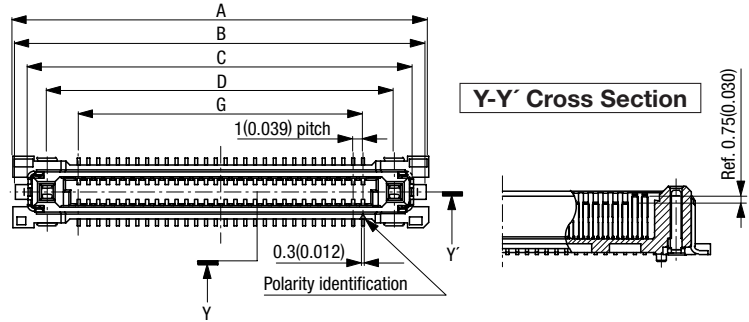
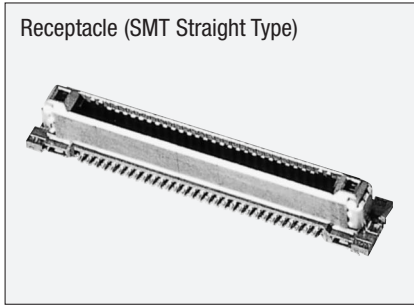
\* Mating connector: also see DJ33/34 Series.

### DJ03-□□□S-F (Receptacle, With power contacts)

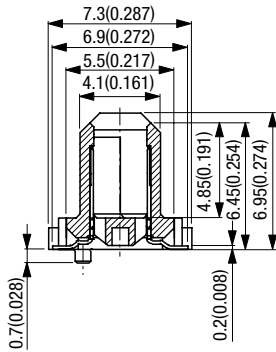
Mating Connectors : DJ13/33-□□□L-F or DJ13/33-□□□FL-□-F

Unit:mm(inch)

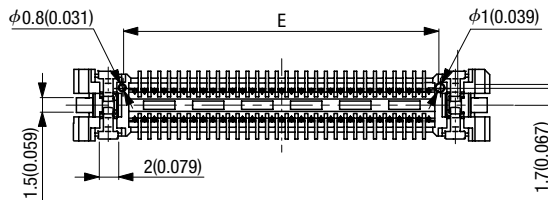
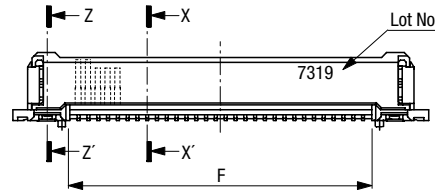
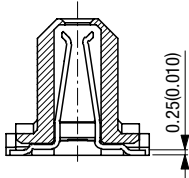
Receptacle (SMT Straight Type)



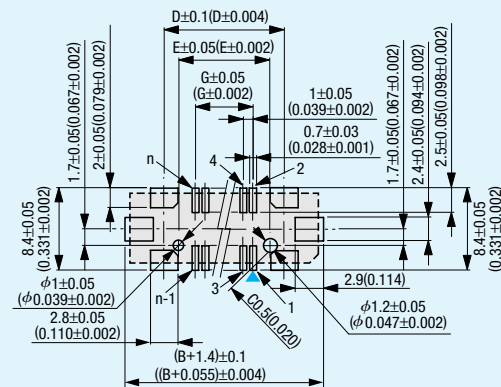
X-X' Cross Section



Z-Z' Cross Section



#### Printed Circuit Board Layout (Component Side View)



▼=Polarity identification  
"n" is number of contacts.

Packaging style
Tray

#### Product Table / Dimensions

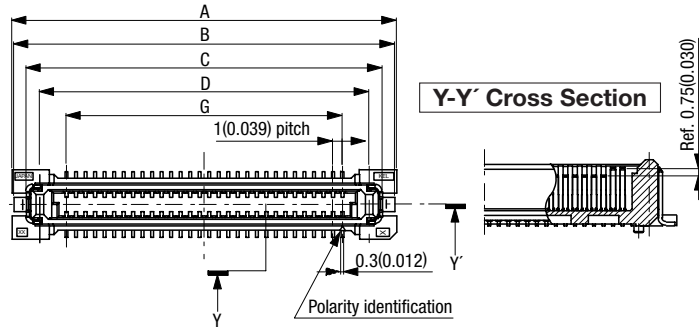
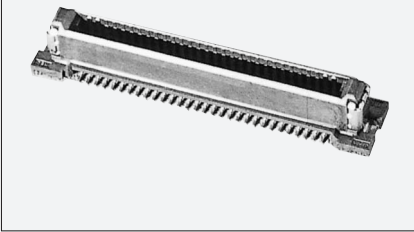
No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
40	DJ03-040S-F	32.4 (1.276)	32.0 (1.260)	29.4 (1.157)	25.4 (1.000)	22.4 (0.882)	20.8 (0.819)	19.0 (0.748)	60
50	DJ03-050S-F	37.4 (1.472)	37.0 (1.457)	34.4 (1.354)	30.4 (1.197)	27.4 (1.079)	25.8 (1.016)	24.0 (0.945)	50
60	DJ03-060S-F	42.4 (1.669)	42.0 (1.654)	39.4 (1.551)	35.4 (1.394)	32.4 (1.276)	30.8 (1.213)	29.0 (1.142)	50
80	DJ03-080S-F	52.4 (2.063)	52.0 (2.047)	49.4 (1.945)	45.4 (1.787)	42.4 (1.669)	40.8 (1.606)	39.0 (1.535)	40

**DJ04-□□□S-F (Receptacle, Without power contacts)**

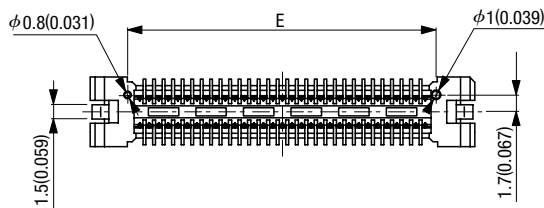
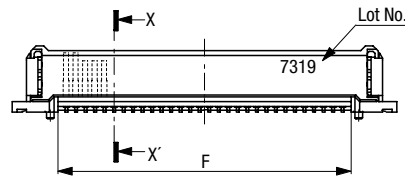
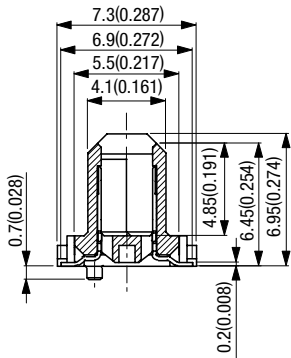
**Mating Connectors : DJ14/34-□□□L-F or DJ14/34-□□□FL-□-F**

Unit:mm(inch)

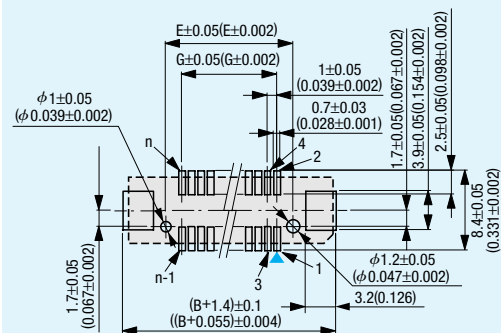
Receptacle (SMT Straight Type)



**X-X' Cross Section**



**Printed Circuit Board Layout (Component Side View)**



▼=Polarity identification  
 "n" is number of contacts.

Packaging style
Tray

**Product Table / Dimensions**

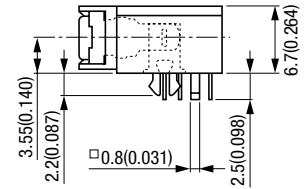
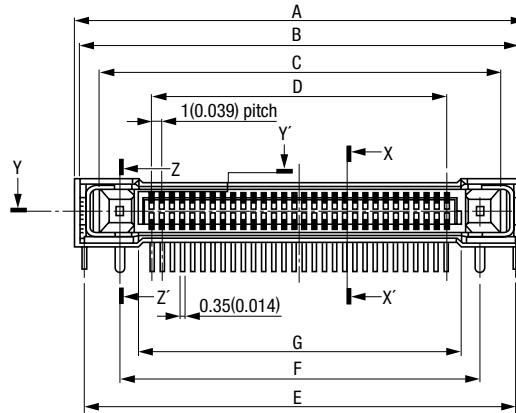
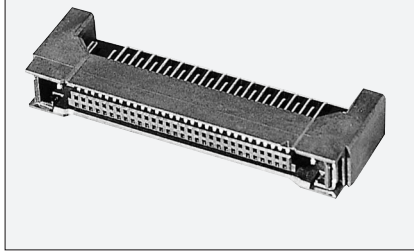
No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
40	DJ04-040S-F	30.4 (1.197)	30.0 (1.181)	27.4 (1.079)	24.6 (0.969)	22.4 (0.882)	20.8 (0.819)	19.0 (0.748)	70
50	DJ04-050S-F	35.4 (1.394)	35.0 (1.378)	32.4 (1.276)	29.6 (1.165)	27.4 (1.079)	25.8 (1.016)	24.0 (0.945)	60
60	DJ04-060S-F	40.4 (1.591)	40.0 (1.575)	37.4 (1.472)	34.6 (1.362)	32.4 (1.276)	30.8 (1.213)	29.0 (1.142)	50
80	DJ04-080S-F	50.4 (1.984)	50.0 (1.969)	47.4 (1.866)	44.6 (1.756)	42.4 (1.669)	40.8 (1.606)	39.0 (1.535)	40

### DJ13-□□□L-F (Plug, With power contacts)

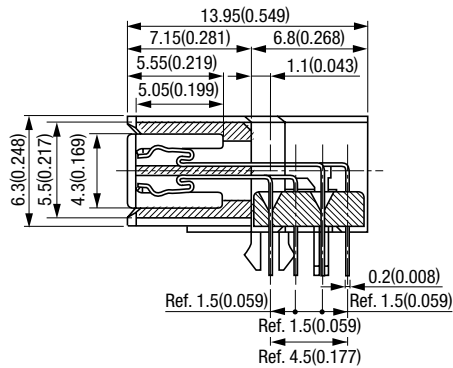
Mating Connector : DJ03-□□□S-F

Unit:mm(inch)

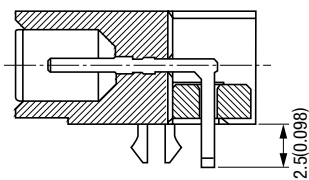
Plug (Right Angle Type)



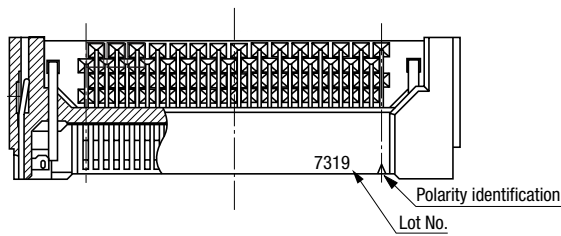
X-X' Cross Section



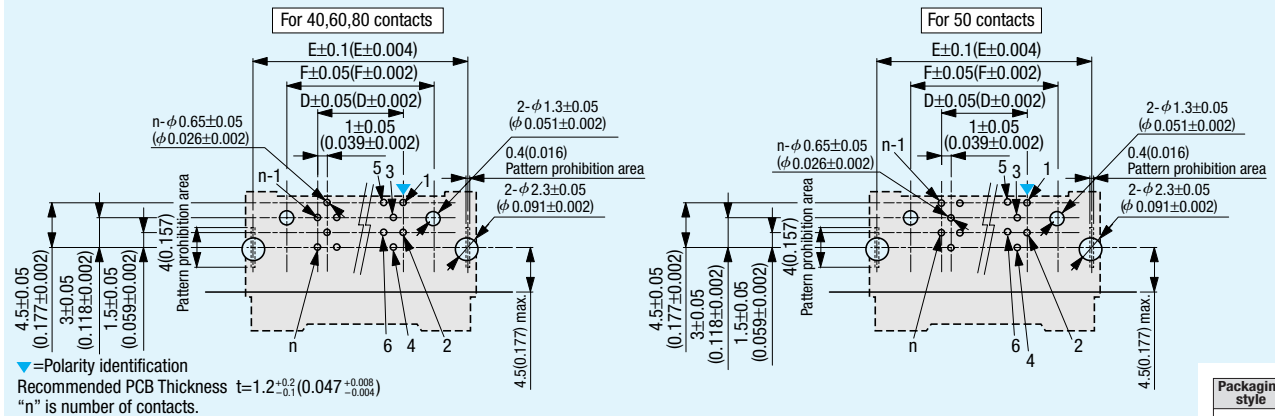
Z-Z' Cross Section



Y-Y' Cross Section



### Printed Circuit Board Layout (Component Side View)



Packaging style  
Pipe

### Product Table / Dimensions

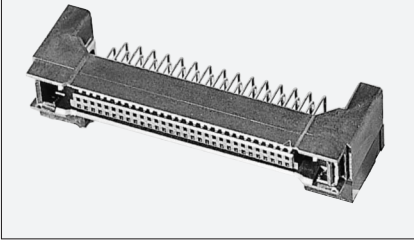
No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
40	DJ13-040L-F	34.3 (1.350)	33.2 (1.307)	29.8 (1.173)	19.0 (0.748)	32.36 (1.274)	25.4 (1.000)	21.8 (0.858)	14
50	DJ13-050L-F	39.3 (1.547)	38.2 (1.504)	34.8 (1.370)	24.0 (0.945)	37.36 (1.471)	30.4 (1.197)	26.8 (1.055)	12
60	DJ13-060L-F	44.3 (1.744)	43.2 (1.701)	39.8 (1.567)	29.0 (1.142)	42.36 (1.668)	35.4 (1.394)	31.8 (1.252)	11
80	DJ13-080L-F	54.3 (2.138)	53.2 (2.094)	49.8 (1.961)	39.0 (1.535)	52.36 (2.061)	45.4 (1.787)	41.8 (1.646)	9

**DJ13-□□□FL-□-F (Plug, With power contacts)**

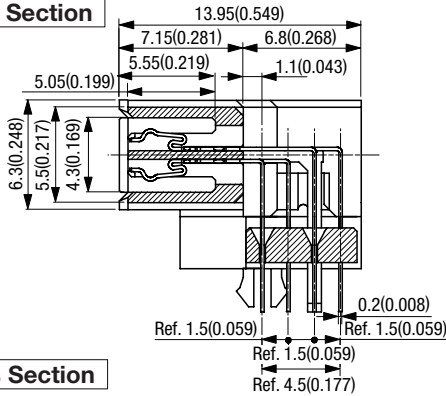
Mating Connector : DJ03-□□□S-F

Unit:mm(inch)

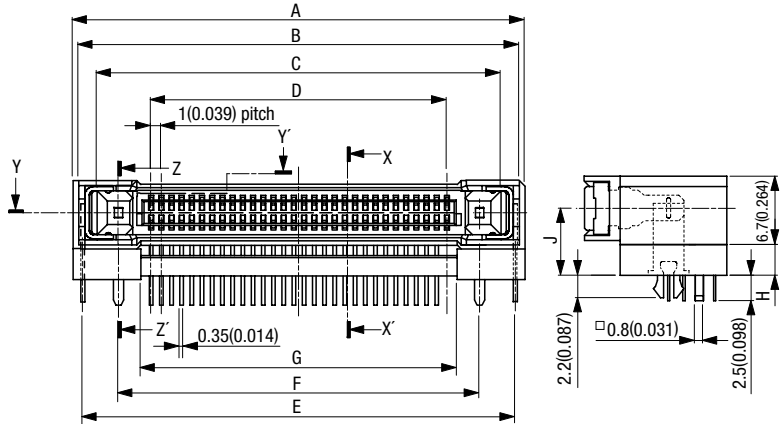
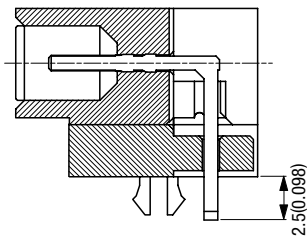
Plug (Selective Right Angle Type)



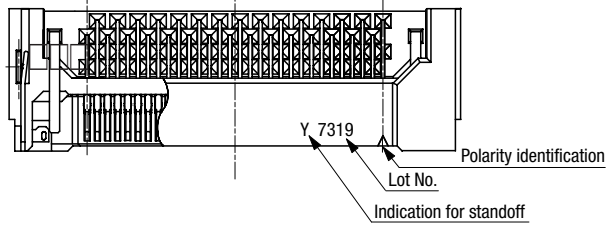
**X-X' Cross Section**



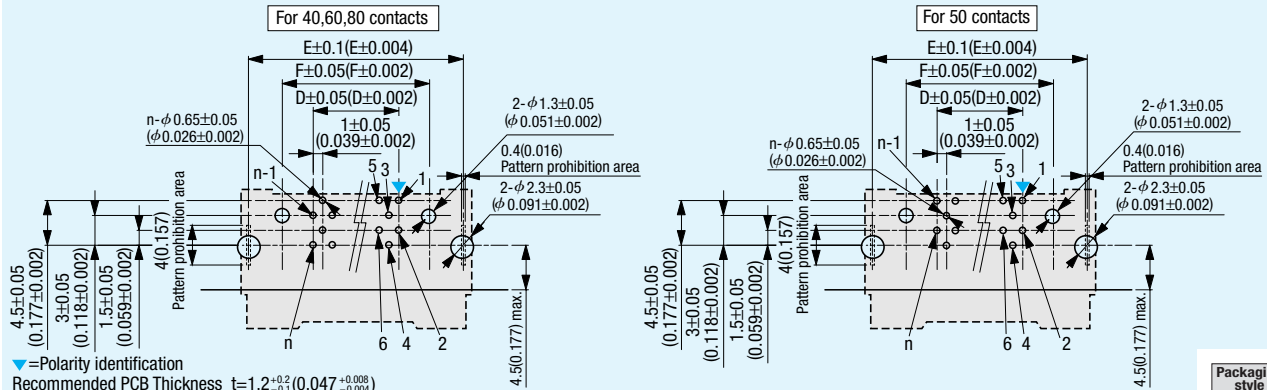
**Z-Z' Cross Section**



**Y-Y' Cross Section**



**Printed Circuit Board Layout (Component Side View)**



**Product Table / Connector Height**

Part Number	Connector Height	H	J
DJ13-□□□FL-T-F	7.7 (0.303)	1.0 (0.039)	4.55 (0.179)
DJ13-□□□FL-V-F	8.7 (0.343)	2.0 (0.079)	5.55 (0.219)
DJ13-□□□FL-Y-F	9.7 (0.382)	3.0 (0.118)	6.55 (0.258)
DJ13-□□□FL-Z-F	10.7 (0.421)	4.0 (0.157)	7.55 (0.297)

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
40	DJ13-040FL-□-F	34.3 (1.350)	33.2 (1.307)	29.8 (1.173)	19.0 (0.748)	32.36 (1.274)	25.4 (1.000)	21.0 (0.827)	14
50	DJ13-050FL-□-F	39.3 (1.547)	38.2 (1.504)	34.8 (1.370)	24.0 (0.945)	37.36 (1.471)	30.4 (1.197)	26.0 (1.024)	12
60	DJ13-060FL-□-F	44.3 (1.744)	43.2 (1.701)	39.8 (1.567)	29.0 (1.142)	42.36 (1.668)	35.4 (1.394)	31.0 (1.220)	11
80	DJ13-080FL-□-F	54.3 (2.138)	53.2 (2.094)	49.8 (1.961)	39.0 (1.535)	52.36 (2.061)	45.4 (1.787)	41.0 (1.614)	9

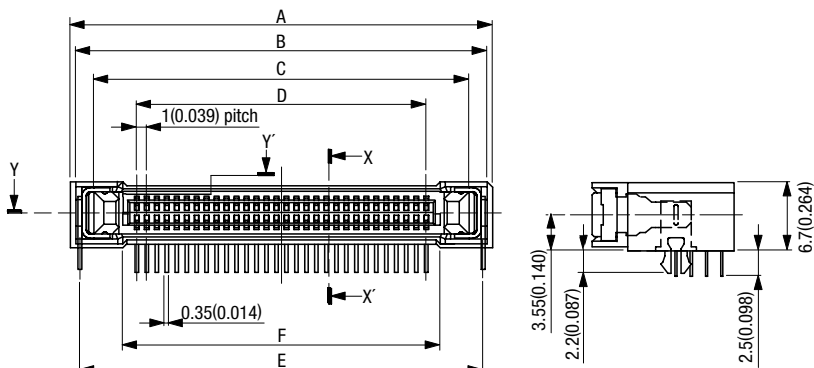
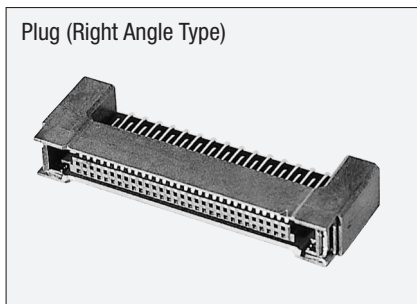
Packaging style  
Pipe

### DJ14-□□□L-F (Plug, Without power contacts)

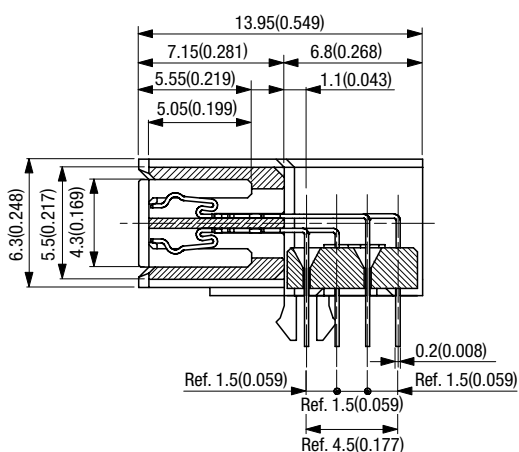
Mating Connector : DJ04-□□□S-F

Unit:mm(inch)

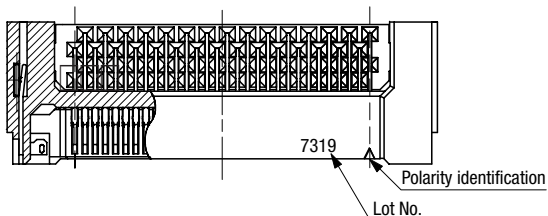
Plug (Right Angle Type)



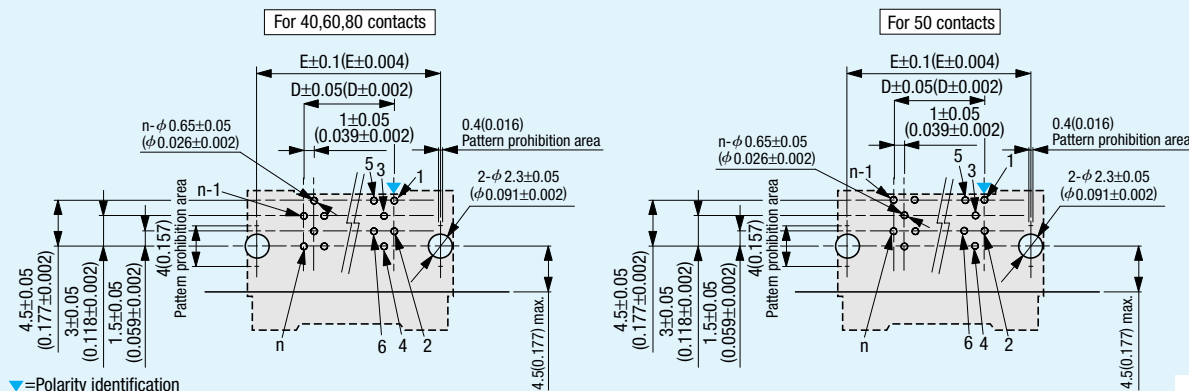
X-X' Cross Section



Y-Y' Cross Section



### Printed Circuit Board Layout (Component Side View)



▼=Polarity identification  
Recommended PCB Thickness  $t=1.2^{+0.3}_{-0.3}$  (0.047<sup>+0.008</sup><sub>-0.004</sub>)  
\*“n” is number of contacts.

Packaging style  
Pipe

#### Product Table / Dimensions

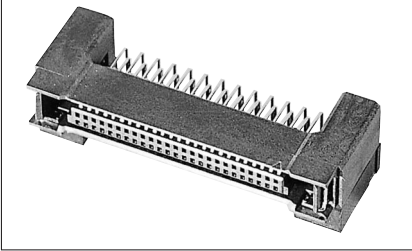
No. of contacts	Part Number	A	B	C	D	E	F	Number of packaging
40	DJ14-040L-F	32.3 (1.272)	31.2 (1.228)	27.8 (1.094)	19.0 (0.748)	30.36 (1.195)	21.8 (0.858)	15
50	DJ14-050L-F	37.3 (1.469)	36.2 (1.425)	32.8 (1.291)	24.0 (0.945)	35.36 (1.392)	26.8 (1.055)	13
60	DJ14-060L-F	42.3 (1.665)	41.2 (1.662)	37.8 (1.488)	29.0 (1.142)	40.36 (1.589)	31.8 (1.252)	12
80	DJ14-080L-F	52.3 (2.059)	51.2 (2.016)	47.8 (1.882)	39.0 (1.535)	50.36 (1.983)	41.8 (1.646)	9

**DJ14-□□□FL-□-F (Plug, Without power contacts)**

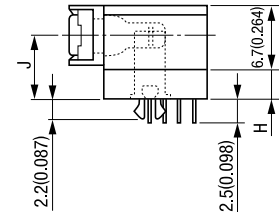
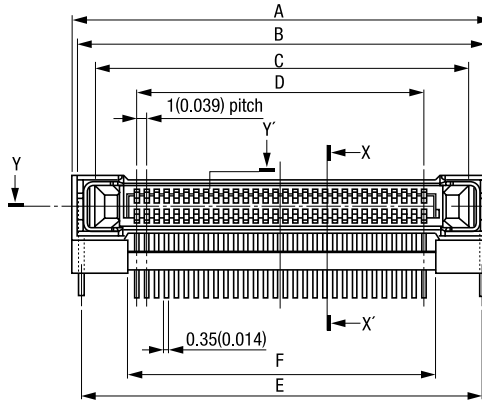
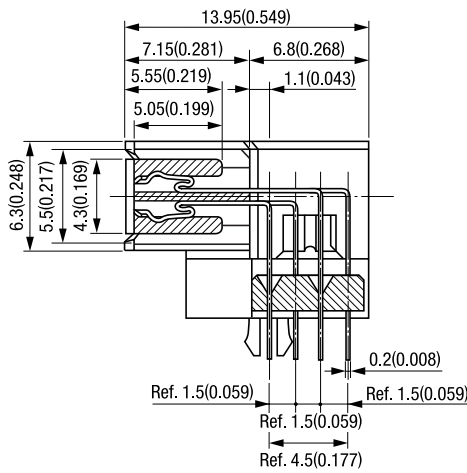
**Mating Connector : DJ04-□□□S-F**

Unit:mm(inch)

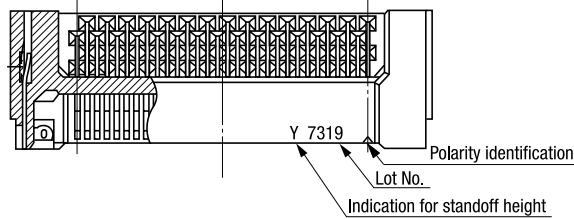
Plug (Selective Right Angle Type)



**X-X' Cross Section**



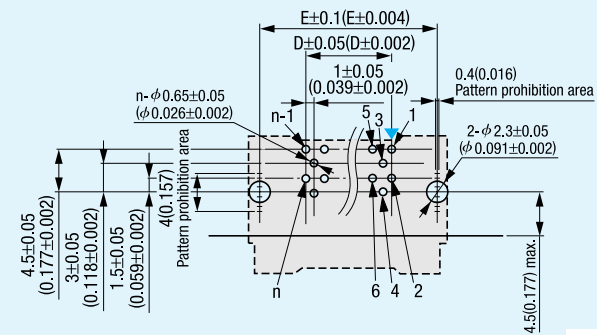
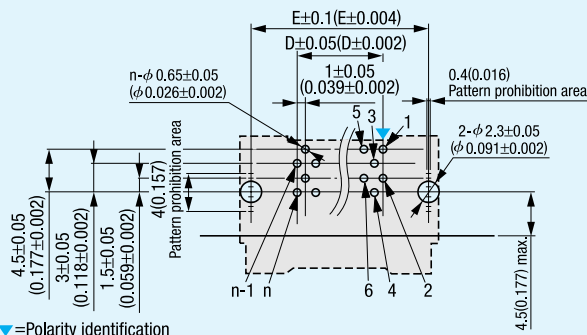
**Y-Y' Cross Section**



**Printed Circuit Board Layout (Component Side View)**

For 40,60,80 contacts

For 50 contacts



▼=Polarity identification  
 Recommended PCB Thickness  $t=1.2^{+0.2}_{-0.08}$ (0.047 $^{+0.008}_{-0.003}$ )  
 "n" is number of contacts.

Packaging style  
 Pipe

■Product Table / Connector Height

Part Number	Connector Height	H	J
DJ14-□□□FL-T-F	7.7 (0.303)	1.0 (0.039)	4.55 (0.179)
DJ14-□□□FL-V-F	8.7 (0.343)	2.0 (0.079)	5.55 (0.219)
DJ14-□□□FL-Y-F	9.7 (0.382)	3.0 (0.118)	6.55 (0.258)
DJ14-□□□FL-Z-F	10.7 (0.421)	4.0 (0.157)	7.55 (0.297)

■Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D	E	F	Number of packaging
40	DJ14-040FL-□-F	32.3 (1.272)	31.2 (1.228)	27.8 (1.094)	19.0 (0.748)	30.36 (1.195)	21.0 (0.827)	15
50	DJ14-050FL-□-F	37.3 (1.469)	36.2 (1.425)	32.8 (1.291)	24.0 (0.945)	35.36 (1.392)	26.0 (1.024)	13
60	DJ14-060FL-□-F	42.3 (1.665)	41.2 (1.622)	37.8 (1.488)	29.0 (1.142)	40.36 (1.589)	31.0 (1.220)	12
80	DJ14-080FL-□-F	52.3 (2.059)	51.2 (2.016)	47.8 (1.882)	39.0 (1.535)	50.36 (1.983)	41.0 (1.614)	9

Specifications and dimensions are subject to change without notice.