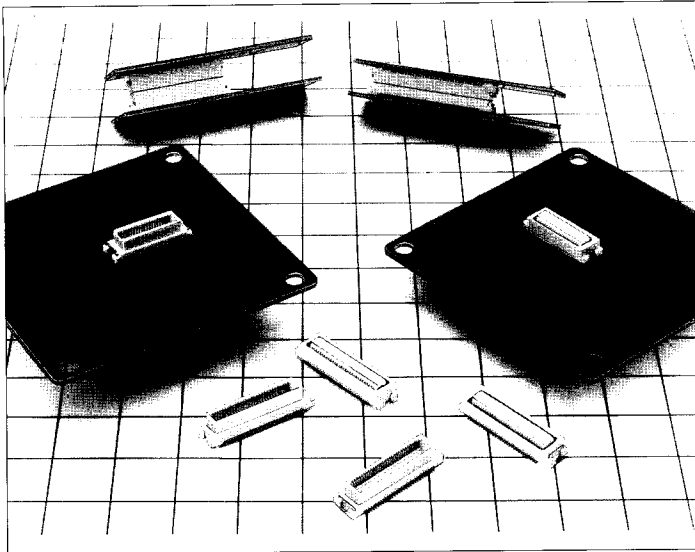


NEW

New Connectors For 0.5mm Pitch Board-To-Board Connection

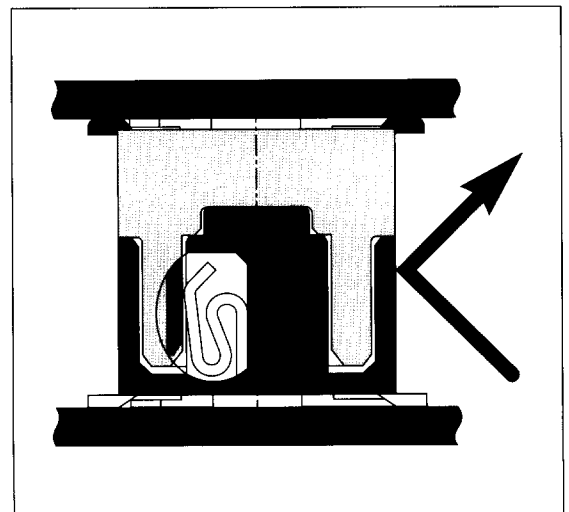
DF17 Series



■Features

1

These DF17 Series are the connectors mainly developed for portable electronic and mobile telecommunications equipment. Designed specifically for mobile electronic devices, these connectors withstand the shock and resist breakage and disconnection that can occur when subjected to drop impact. Suited to a wide variety of mobile applications as LCD-related equipment, miniature portable remote terminals, etc. as well as portable telephones.



2. Enhanced performance

Receptacle housings are designed with a BOX structure which improves resistance to shock, vibration and mechanical stress. Additionally, the receptacle's bellows type contacts possess excellent spring characteristics, maintaining electrical continuity when subjected to the stress of an impact when dropped.

3. Reinforced metal fittings

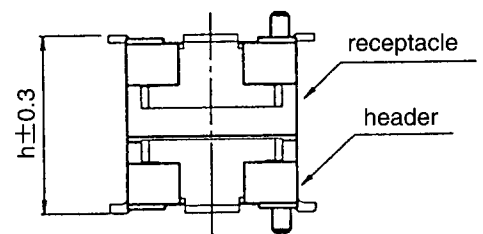
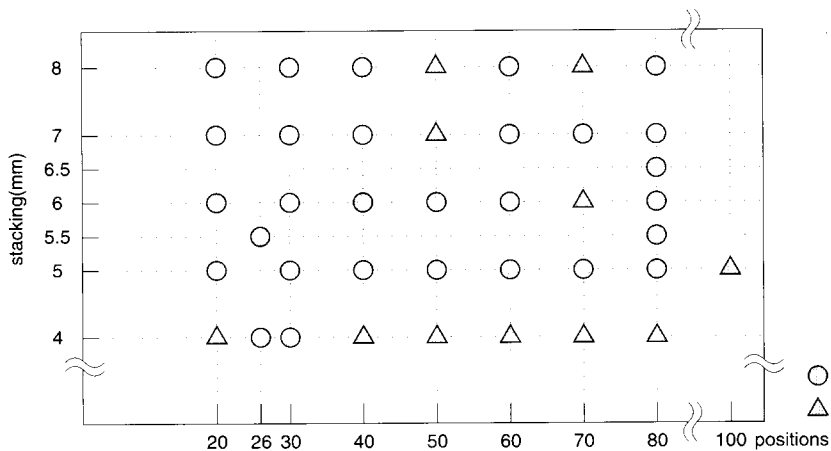
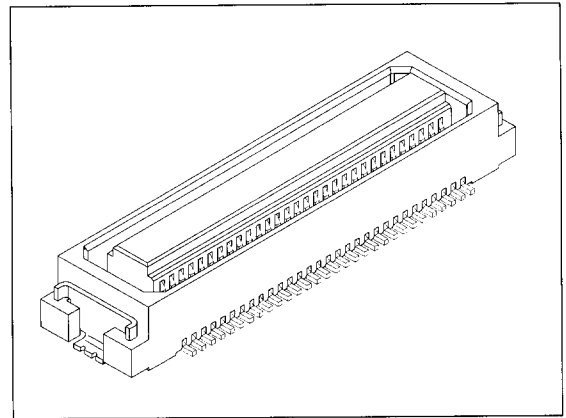
Metal tabs or fittings solder to the board and reduce stress to contact solder joints.

4. Wide Variety of Contact Positions

Available in multiples of 10 starting from 20 positions through 80 positions.

5. 5-8mm of stacking height

Stacking heights from 4 to 8mm (1mm increments) are offered by selecting different receptacle/header combinations.



○ : product available
△ : planned

		receptacle	
		DF17# (□) - * DP-0.5V	DF17# (□) - * DP-0.5V
header	3.0		
	4.0		
	5.0		
DF17# (□) - * DP-0.5V	2.0		
	2.5		
	4.0		

		receptacle	
		3.0H	3.0H
header	1.0H		
	4mm		

(Note.) Stacking height does not include the thickness of solder paste. This should be considered when arriving at true stacking height.

APPLICATIONS

Portable telephones, LCD-related equipment, miniature information devices, etc.

■PRODUCT SPECIFICATIONS

RATING	Rated Current	0.3A	Applicable Temp. Range	-35°C ~ +85°C (Note.1)	Storage Temp. Range	-10°C ~ +60°C (Note.2)
	Rated Voltage	AC50	Applicable humidity range	40-80%	Storage Humidity Range	40-70%

DESCRIPTION	SPECIFICATIONS	REQUIREMENTS		
1.insulation resistance	500MΩ or more	Should be measured at DC 100V.		
2.voltage resistance	No flashover/dielectric	Should be powered at AC 150V for 1 minute.		
3.contact resistance	50mΩ or less	Measured at 100mA.		
4.vibration resistance	No instantaneous electric disconnection of 1 μs or more	Frequency 10~55Hz, one-sided Amplitude 0.75mm, 3 directions for 2 hours, respectively		
5.humidity resistance	Contact resistance:50mΩ or less Insulation resistance: 250MΩ or more	Leave under the condition of 40±2°C in temperature and of 90~95% in humidity for 96 hours.		
6.temperature cycle	Contact resistance:50mΩ or less Insulation resistance:500MΩ or more	(-55°C 30 minutes→+5-35°C 10 minutes→85°C 30 minutes→+5-35°Cmax. 10 minutes)5cycle		
7.Duration against plugging/unplugging	Contact resistance:50mΩ or less	50 times		
8.heat resistance of soldering	No fusion of resin section affecting performance	SMT type	Reflow: at Recommended temp. profile	manual soldering: Temperature of soldering iron: 300°C 3 sec.

(Note.1) Includes temperature rise in power-on condition.

(Note.2) Where storage means the status of long-term preservation for unused parts before being installed in boards.

For deactivated state after installation in boards, applicable temperature / humidity ranges are applied.

(Note.3) Storage temperature range in embossed packing specifications will be -10~ 50°C.

(Note.4) Above-stated specifications are typical of this series. For part specific data, consult factory.

■MATERIAL QUALITY

Product	Parts	Material	Processing	UL Standard
Receptacle	Insulator	Nylon resin	white	UL94V-0
	Contact	Phosphor bronze	gold plating	
	Metal fittings	Copper Alloy	solder plating	
Header	Insulator	Nylon resin	white	UL94V-0
	Contact	Phosphor bronze	gold plating (Note.)	
	Metal fittings	Copper Alloy	solder plating	

(Note.1)For header gold plated parts- contact section: gold platinglead section: solder plating Only for DF17(1.0H)-※DP-0.5V, contact section: gold plating lead section: flash gold plating

■PRODUCT NUMBER CONFIGURATION

This is available for you to determine the product specifications from the part number description, not create part numbers. When ordering, please select from the part numbers shown in page 27~32 of this catalog.

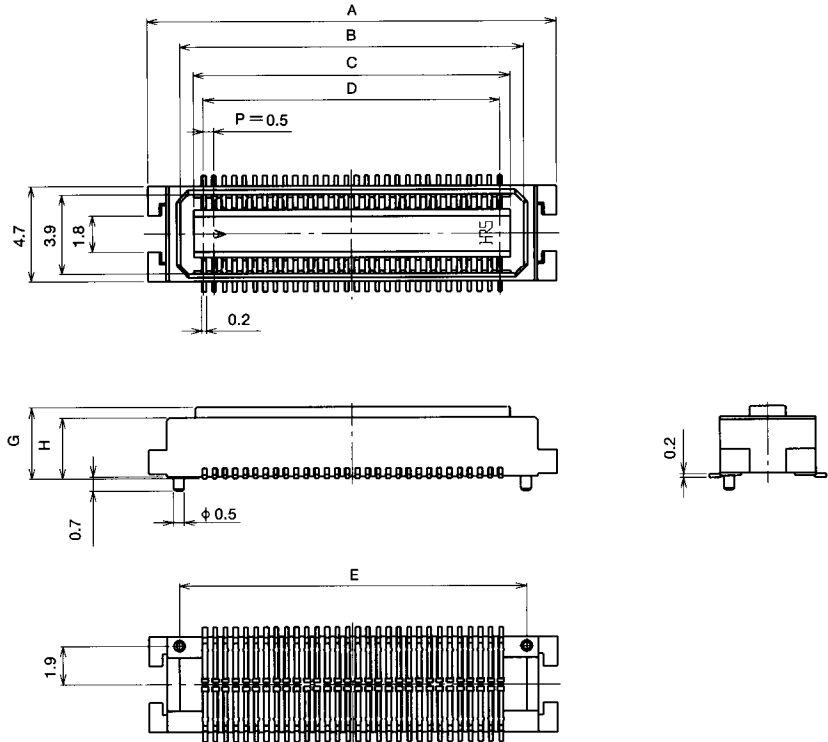
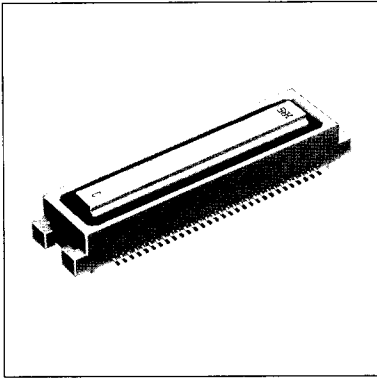
●RECEPTACLE/HEADER

DF 17 # (※ ※) - * DS - 0.5 V

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series name: DF	<table border="1"> <thead> <tr> <th>Sign</th> <th>Metal fittings</th> <th>Guide post</th> </tr> </thead> <tbody> <tr> <td>DF17</td> <td>YES</td> <td>YES</td> </tr> <tr> <td>DF17A</td> <td>NO</td> <td>YES</td> </tr> <tr> <td>DF17B</td> <td>YES</td> <td>NO</td> </tr> <tr> <td>DF17C</td> <td>NO</td> <td>NO</td> </tr> </tbody> </table>	Sign	Metal fittings	Guide post	DF17	YES	YES	DF17A	NO	YES	DF17B	YES	NO	DF17C	NO	NO
Sign		Metal fittings	Guide post													
DF17		YES	YES													
DF17A		NO	YES													
DF17B	YES	NO														
DF17C	NO	NO														
② Series No.: 17																
③ Shape sign																
④ Product height Add the receptacle and plug numbers shown in parentheses to achieve the correct stacking height.																
⑤ Number of Contacts 20, 30, 40, 50, 60, 70, 80 poles																
⑥ Connector type DS : Receptacle DP : Header																
⑦ Contact pitch 0.5mm																
⑧ Terminal shape V : Straight SMT (lateral connection)																

■RECEPTACLES[WITHOUT REINFORCED METAL FITTINGS]



●PRODUCT HEIGHT: 3mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	G	H
DF17A(3.0)-20DS-0.5V(51)	CL683-0012-6-51	20	8.2	6.8	5.5	4.5	7	3.5	3
DF17A(3.0)-30DS-0.5V(51)	CL683-0013-9-51	30	10.7	9.3	8	7	9.5		
DF17A(3.0)-40DS-0.5V(51)	CL683-0014-1-51	40	13.2	11.8	10.5	9.5	12		
DF17A(3.0)-50DS-0.5V(51)	CL683-0015-4-51	50	15.7	14.3	13	12	14.5		
DF17A(3.0)-60DS-0.5V(51)	CL683-0016-7-51	60	18.2	16.8	15.5	14.5	17		
DF17A(3.0)-70DS-0.5V(51)	CL683-0017-0-51	70	20.7	19.3	18	17	19.5		
DF17A(3.0)-80DS-0.5V(51)	CL683-0018-2-51	80	23.2	21.8	20.5	19.5	22		

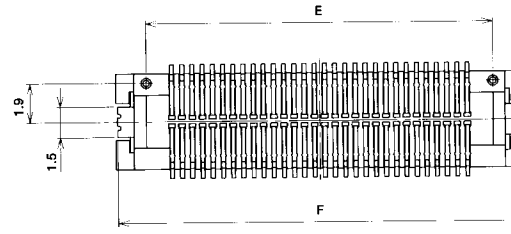
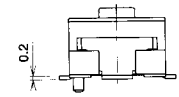
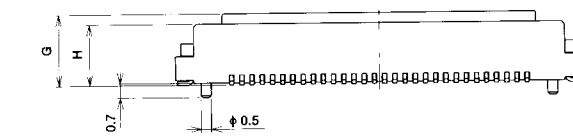
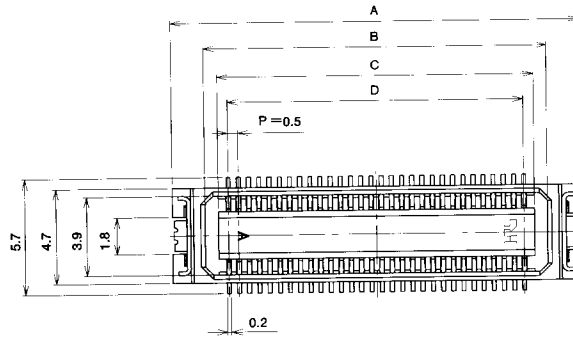
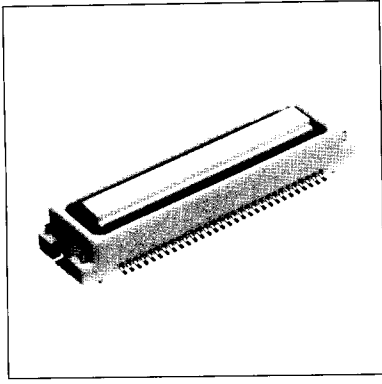
●PRODUCT HEIGHT: 4mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	G	G
DF17A(4.0)-20DS-0.5V(51)	CL683-0052-0-51	20	8.2	6.8	5.5	4.5	7	4.5	4
DF17A(4.0)-30DS-0.5V(51)	CL683-0053-3-51	30	10.7	9.3	8	7	9.5		
DF17A(4.0)-40DS-0.5V(51)	CL683-0054-6-51	40	13.2	11.8	10.5	9.5	12		
DF17A(4.0)-50DS-0.5V(51)	CL683-0055-9-51	50	15.7	14.3	13	12	14.5		
DF17A(4.0)-60DS-0.5V(51)	CL683-0056-1-51	60	18.2	16.8	15.5	14.5	17		
DF17A(4.0)-70DS-0.5V(51)	—	70	20.7	19.3	18	17	19.5		
DF17A(4.0)-80DS-0.5V(51)	CL683-0058-7-51	80	23.2	21.8	20.5	19.5	22		

(Note.1) Standard packing of this product is embossed reel type. (package :1 reel includes 1000 parts.)

(Note.2) Parts are available without guideposts. Consult factory.

RECEPTACLES[WITH REINFORCED METAL FITTINGS]



PRODUCT HEIGHT: 3mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	F	G	H
DF17(3.0)-20DS-0.5V(51)	CL683-0002-2-51	20	10	6.8	5.5	4.5	7	9.8	3.5	3
DF17(3.0)-30DS-0.5V(51)	CL683-0003-5-51	30	12.5	9.3	8	7	9.5	12.3		
DF17(3.0)-40DS-0.5V(51)	CL683-0004-8-51	40	15	11.8	10.5	9.5	12	14.8		
DF17(3.0)-50DS-0.5V(51)	CL683-0005-0-51	50	17.5	14.3	13	12	14.5	17.3		
DF17(3.0)-60DS-0.5V(51)	CL683-0006-3-51	60	20	16.8	15.5	14.5	17	19.8		
DF17(3.0)-70DS-0.5V(51)	CL683-0007-6-51	70	22.5	19.3	18	17	19.5	22.3		
DF17(3.0)-80DS-0.5V(51)	CL683-0008-9-51	80	25	21.8	20.5	19.5	22	24.8		

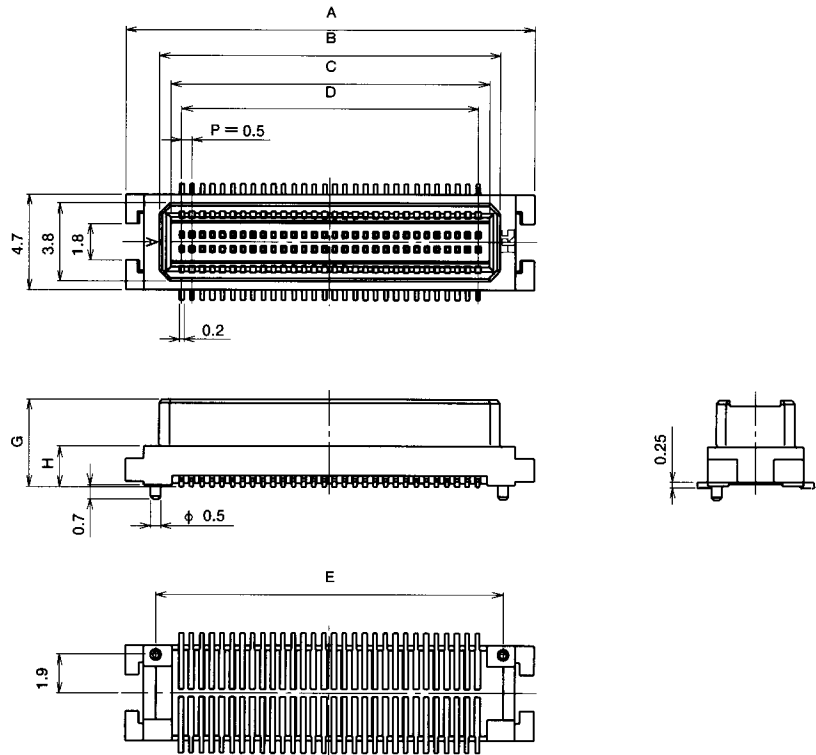
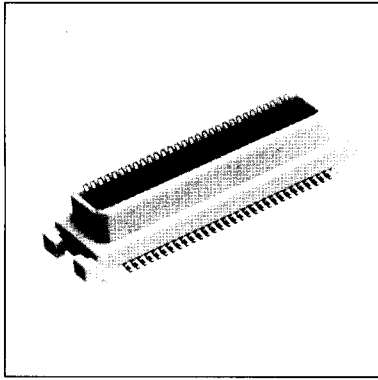
PRODUCT HEIGHT: 4mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	F	G	H
DF17(4.0)-20DS-0.5V(51)	CL683-0042-7-51	20	10	6.8	5.5	4.5	7	9.8	4.5	4
DF17(4.0)-30DS-0.5V(51)	CL683-0043-0-51	30	12.5	9.3	8	7	9.5	12.3		
DF17(4.0)-40DS-0.5V(51)	CL683-0044-2-51	40	15	11.8	10.5	9.5	12	14.8		
DF17(4.0)-50DS-0.5V(51)	CL683-0045-5-51	50	17.5	14.3	13	12	14.5	17.3		
DF17(4.0)-60DS-0.5V(51)	CL683-0046-8-51	60	20	16.8	15.5	14.5	17	19.8		
DF17(4.0)-70DS-0.5V(51)	—————	70	22.5	19.3	18	17	19.5	22.3		
DF17(4.0)-80DS-0.5V(51)	CL683-0048-3-51	80	25	21.8	20.5	19.5	22	24.8		

(Note.1) Standard packing of this product is embossed reel type. (package :1 reel includes 1000 parts.)

(Note.2) Parts are available without guide posts. Consult factory.

■HEADER[WITHOUT REINFORCED METAL FITTINGS]



●PRODUCT HEIGHT: 2mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	G	G
DF17A(2.0)-20DP-0.5V(51)	CL683-0092-5-51	20	8.2	6.7	5.6	4.5	7	4.3	2
DF17A(2.0)-30DP-0.5V(51)	CL683-0093-8-51	30	10.7	9.2	8.1	7	9.5		
DF17A(2.0)-40DP-0.5V(51)	CL683-0094-0-51	40	13.2	11.7	10.6	9.5	12		
DF17A(2.0)-50DP-0.5V(51)	CL683-0095-3-51	50	15.7	14.2	13.1	12	14.5		
DF17A(2.0)-60DP-0.5V(51)	CL683-0096-6-51	60	18.2	16.7	15.6	14.5	17		
DF17A(2.0)-70DP-0.5V(51)	CL683-0097-9-51	70	20.7	19.2	18.1	17	19.5		
DF17A(2.0)-80DP-0.5V(51)	CL683-0098-1-51	80	23.2	21.7	20.6	19.5	22		

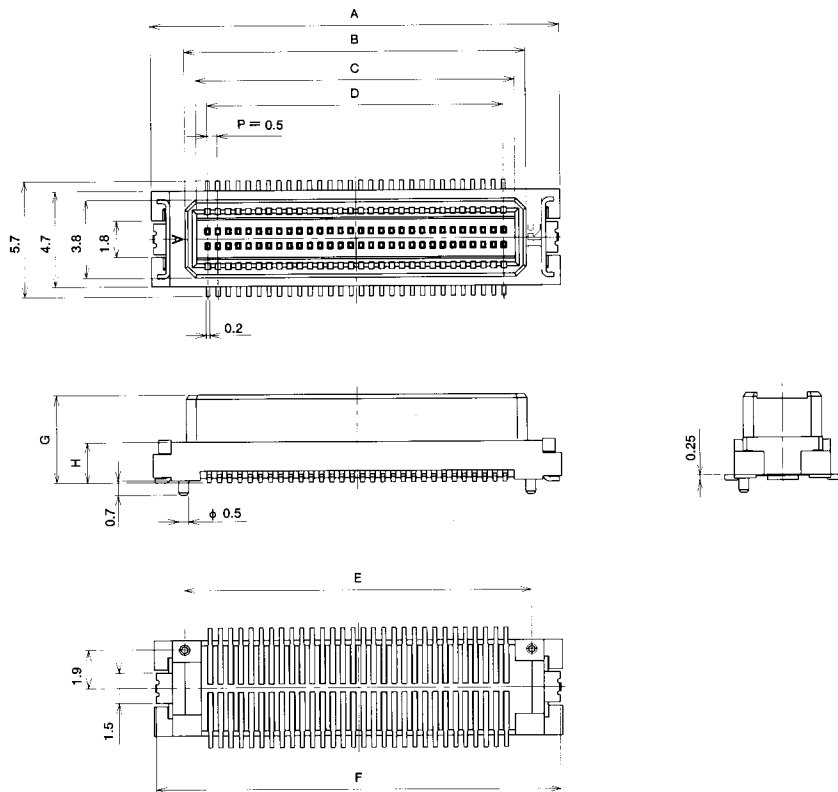
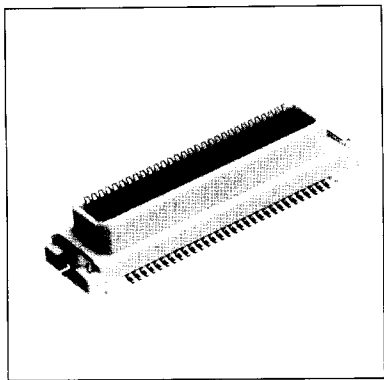
●PRODUCT HEIGHT: 4mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	G	H
DF17A(4.0)-20DP-0.5V(51)	CL683-0132-8-51	20	8.2	6.7	5.6	4.5	7	6.3	4
DF17A(4.0)-30DP-0.5V(51)	CL683-0133-0-51	30	10.7	9.2	8.1	7	9.5		
DF17A(4.0)-40DP-0.5V(51)	CL683-0134-3-51	40	13.2	11.7	10.6	9.5	12		
DF17A(4.0)-50DP-0.5V(51)	—	50	15.7	14.2	13.1	12	14.5		
DF17A(4.0)-60DP-0.5V(51)	CL683-0136-9-51	60	18.2	16.7	15.6	14.5	17		
DF17A(4.0)-70DP-0.5V(51)	—	70	20.7	19.2	18.1	17	19.5		
DF17A(4.0)-80DP-0.5V(51)	CL683-0138-4-51	80	23.2	21.7	20.6	19.5	22		

(Note.1)Standard packing of this product is embossed reel type. (package :1 reel includes1000 parts.)

(Note.2)Parts are available without guide posts.Consult factory

■HEADER[WITH REINFORCED METAL FITTINGS]



●PRODUCT HEIGHT: 2mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	F	G	H
DF17(2.0)-20DP-0.5V(51)	CL683-0082-1-51	20	10	6.7	5.6	4.5	7	9.8	4.3	2
DF17(2.0)-30DP-0.5V(51)	CL683-0083-4-51	30	12.5	9.2	8.1	7	9.5	12.3		
DF17(2.0)-40DP-0.5V(51)	CL683-0084-7-51	40	15	11.7	10.6	9.5	12	14.8		
DF17(2.0)-50DP-0.5V(51)	CL683-0085-0-51	50	17.5	14.2	13.1	12	14.5	17.3		
DF17(2.0)-60DP-0.5V(51)	CL683-0086-2-51	60	20	16.7	15.6	14.5	17	19.8		
DF17(2.0)-70DP-0.5V(51)	CL683-0087-5-51	70	22.5	19.2	18.1	17	19.5	22.3		
DF17(2.0)-80DP-0.5V(51)	CL683-0088-8-51	80	25	21.7	20.6	19.5	22	24.8		

●PRODUCT HEIGHT: 4mm TYPE

Parts No.	Parts Code	Number of contacts	A	B	C	D	E	F	G	H
DF17(4.0)-20DP-0.5V(51)	CL683-0122-4-51	20	10	6.7	5.6	4.5	7	9.8	6.3	4
DF17(4.0)-30DP-0.5V(51)	CL683-0123-7-51	30	12.5	9.2	8.1	7	9.5	12.3		
DF17(4.0)-40DP-0.5V(51)	CL683-0124-0-51	40	15	11.7	10.6	9.5	12	14.8		
DF17(4.0)-50DP-0.5V(51)	—	50	17.5	14.2	13.1	12	14.5	17.3		
DF17(4.0)-60DP-0.5V(51)	CL683-0126-5-51	60	20	16.7	15.6	14.5	17	19.8		
DF17(4.0)-70DP-0.5V(51)	—	70	22.5	19.2	18.1	17	19.5	22.3		
DF17(4.0)-80DP-0.5V(51)	CL683-0128-0-51	80	25	21.7	20.6	19.5	22	24.8		

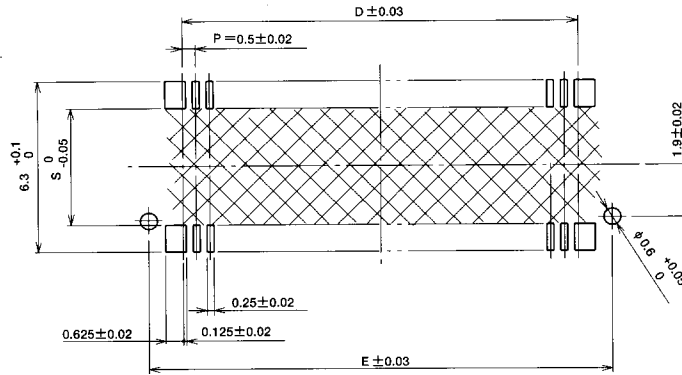
(Note.1) Standard packing of this product is embossed reel type. (package : 1 reel includes 1000 parts.)

(Note.2) Parts are available without guide posts. Consult factory

RECOMMENDED BOARD PATTERN [TYPE WITHOUT REINFORCED METAL FITTINGS]

RECEPTACLE


HEADER



Number of contacts	D	E
20	4.5	7
30	7	9.5
40	9.5	12
50	12	14.5
60	14.5	17
70	17	19.5
80	19.5	22

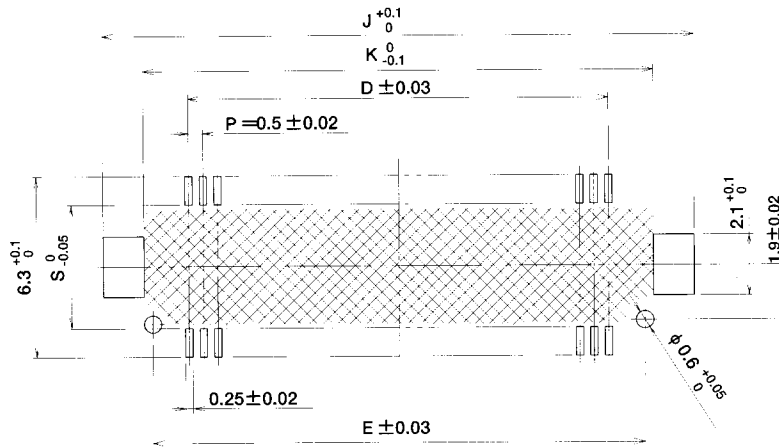
S	
receptacle	4.3
header	4

※ Recommended solder paste thickness is 150 μm.

(Note.) When  section has a pattern and resistance processing is not made, be careful that it may contact with connector terminals.

RECOMMENDED BOARD PATTERN [TYPE WITH REINFORCED METAL FITTINGS]


- RECEPTACLE
- HEADER



Number of contacts	D	E	J	K
20	4.5	7	10.4	7.6
30	7.0	9.5	12.9	10.1
40	9.5	12	15.4	12.6
50	12.0	14.5	17.9	15.1
60	14.5	17	20.4	17.6
70	17.0	19.5	22.9	20.1
80	19.5	22	25.4	22.6

S	
receptacle	4.3
header	4

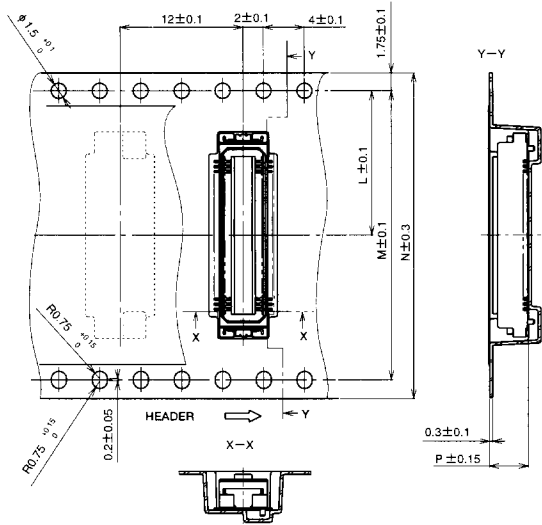
※ Recommended solder paste thickness is 150 μm.

(Note.) When  section has a pattern and resistance processing is not made, be careful that it may contact with connector terminals.

PACKING SPECIFICATIONS

CARRIER DIMENSIONS (JIS-C-0806-dependent)

RECEPTACLE



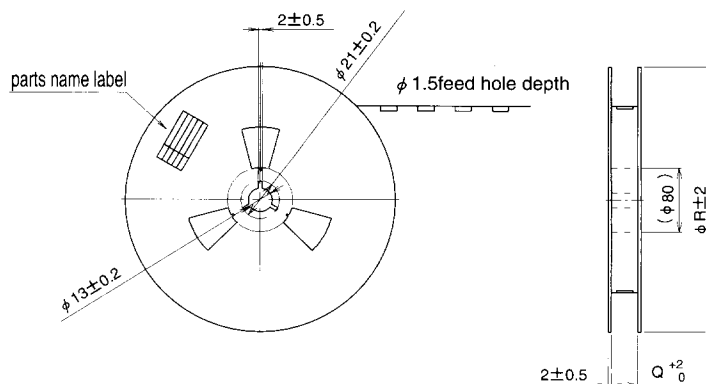
Insertion connector	L	N	P	Q	R
DF17#(3.0)-20DS-0.5V	11.5	24	3.8	24.4	330
DF17#(3.0)-30DS-0.5V	11.5	24	3.8	24.4	330
DF17#(3.0)-40DS-0.5V	11.5	24	3.8	24.4	330

Insertion connector	L	M	N	P	Q	R
DF17#(3.0)-50DS-0.5V	14.2	28.4	32	3.8	32.4	330
DF17#(3.0)-60DS-0.5V	14.2	28.4	32	3.8	32.4	330
DF17#(3.0)-70DS-0.5V	20.2	40.4	44	3.8	44.4	330
DF17#(3.0)-80DS-0.5V	20.2	40.4	44	3.8	44.4	330

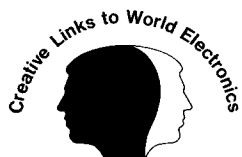
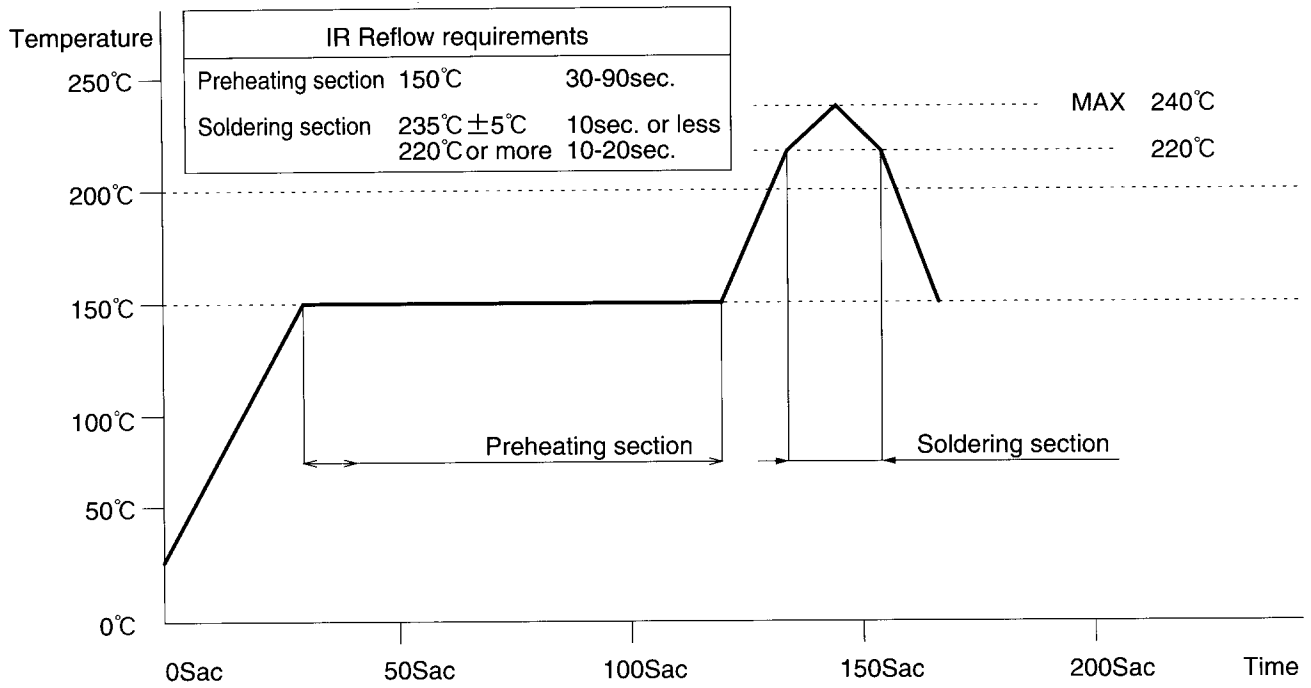
Insertion connector	L	N	P	Q	R
DF17#(4.0)-20DS-0.5V	11.5	24	4.8	24.4	330
DF17#(4.0)-30DS-0.5V	11.5	24	4.8	24.4	330
DF17#(4.0)-40DS-0.5V	11.5	24	4.8	24.4	330

Insertion connector	L	M	N	P	Q	R
DF17#(4.0)-50DS-0.5V	14.2	28.4	32	4.8	32.4	330
DF17#(4.0)-60DS-0.5V	14.2	28.4	32	4.8	32.4	330
DF17#(4.0)-70DS-0.5V	20.2	40.4	44	4.8	44.4	330
DF17#(4.0)-80DS-0.5V	20.2	40.4	44	4.8	44.4	330

REEL STATUS DIAGRAM



■INSTALLATION TEMPERATURE PROFILE



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