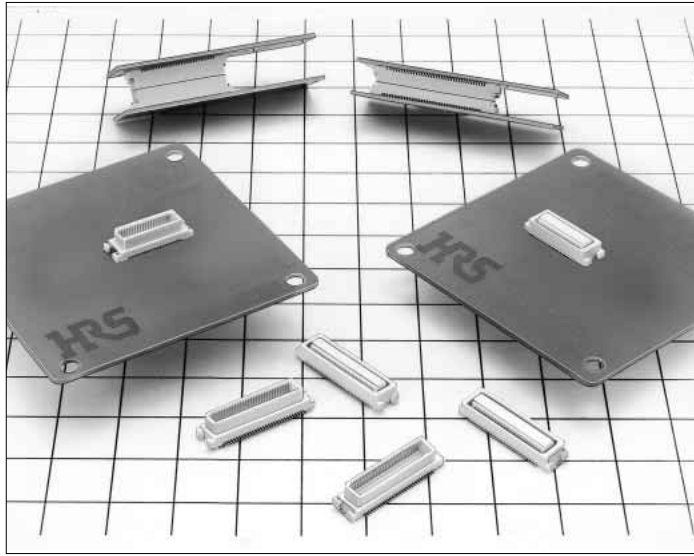


# 0.5mm Pitch Board to Board Connector

## DF17 Series



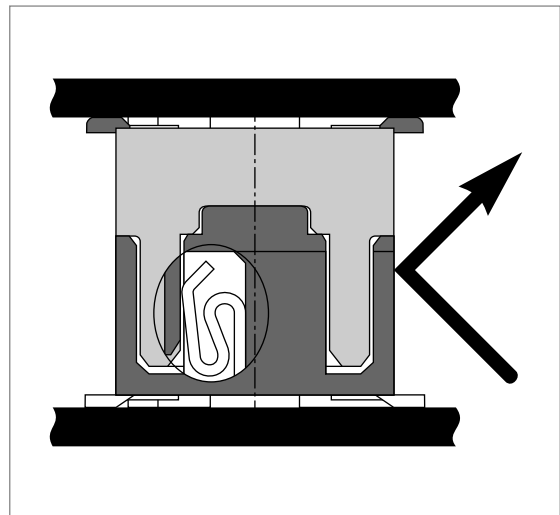
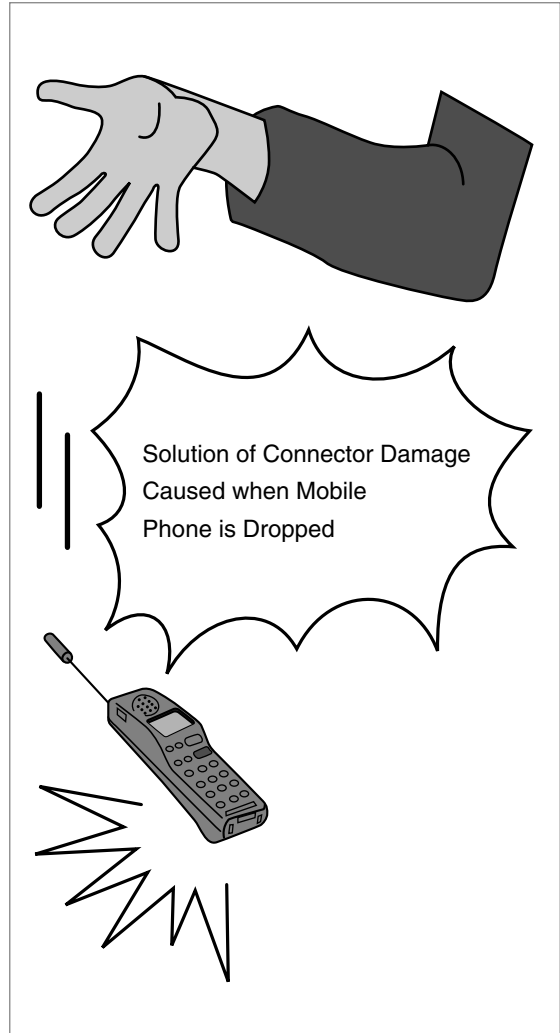
### ■ Features

1. DF17 series are the connector which has been developed mainly for the mobile phone.

Connector Problems Involving in Mobile phone  
Example:  
The following problems can be solved;  
"Connector Damage Caused when Mobile phone is Dropped"  
"Electrical Discontinuity in Printed Circuit Board is Fixed (Fastened by screws)"

Especially, in regard to the resistance to the drop shock, Hirose has developed a new connector structure utilizing its unique technology, and greatly enhanced the resistance to the drop shock.

In broad variation development, the connector can be utilized in wide fields of LCD equipment, miniature information terminal equipment and so on, in addition to mobile phones.



## 2. Performance Enhancement

The receptacle is designed in a BOX structure and has also enhanced shock-proof, pinch-proof and scoop-proof performance.

In addition, the receptacle contact has employed the high scoop-proof bellows type.

## 3. With Metal Fitting available

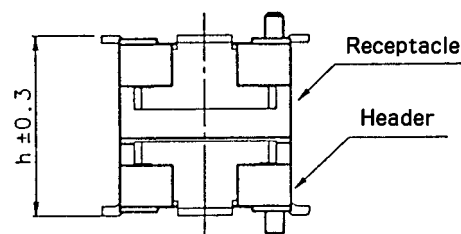
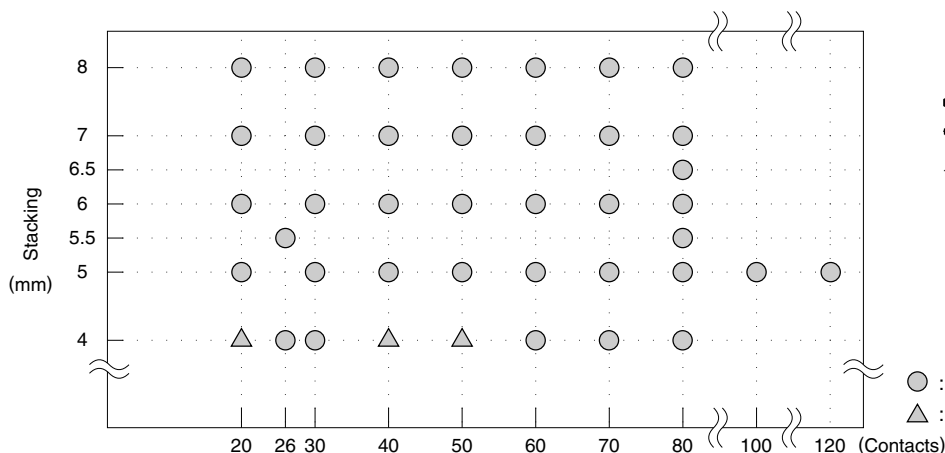
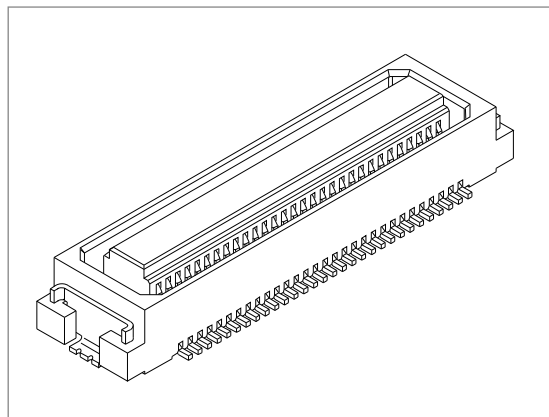
In order to grade up the strength against the mechanical stress, the metal fitting specification is also available.

## 4. Broad Variations in Contact Number

The connectors are lined up per 10 contacts between 20 and 80 contacts to take countermeasures for multi-signalization.

## 5. Stacking Height 4 to 8mm

The stacking height can be selected (per millimeter) between 4mm and 8mm in combination of the receptacle with the header.



Header	Receptacle	DF17#(□)-*DS-0.5V	
		3.0	4.0
DF17#(□)-*DP-0.5V	2.0	5mm	6mm
	2.5	5.5mm	6.5mm
	4.0	7mm	8mm

Receptacle	DF17(3.0H)-*DS-0.5V
Header	
DF17(1.0H)-*DP-0.5V	4mm

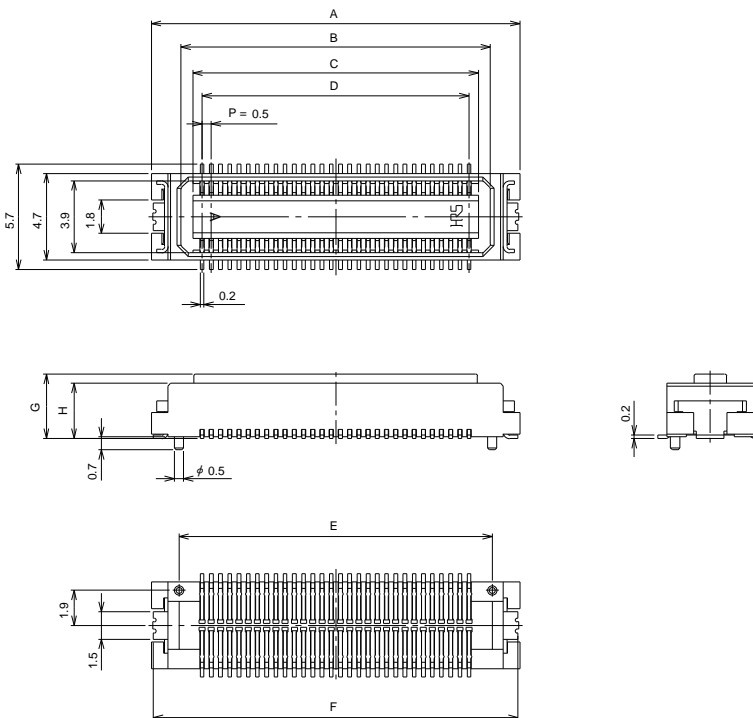
Note : The stacking height doesn't include the solder paste thickness.

## Applications

Mobile phones, LCD, miniature equipment and so on



## Receptacle With metal fitting



### Stacking Height: 4mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(3.0H)-26DS-0.5V(57)	683-0253-2-57	26	11.5	8.3	7.0	6.0	8.5	11.3	3.0	3.0	YES
DF17(3.0H)-30DS-0.5V(57)	683-0268-0-57	30	12.5	9.3	8.0	7.0	9.5	12.3			
DF17(3.0H)-60DS-0.5V(57)	683-0361-5-57	60	20.0	16.8	15.5	14.5	17.0	19.8			
DF17(3.0H)-70DS-0.5V(57)	683-0393-1-57	70	22.5	19.3	18.0	17.0	19.5	22.3			
DF17(3.0H)-80DS-0.5V(57)	683-0369-7-57	80	25.0	21.8	20.5	19.5	22.0	24.8			

### Stacking Height: 5mm, 7mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(3.0)- 20DS-0.5V(57)	683-0002-2-57	20	10.0	6.8	5.5	4.5	7.0	9.8	3.5	3.0	YES
DF17(3.0)- 26DS-0.5V(57)	683-0241-3-57	26	11.5	8.3	7.0	6.0	8.5	11.3			
DF17(3.0)- 30DS-0.5V(57)	683-0003-5-57	30	12.5	9.3	8.0	7.0	9.5	12.3			
DF17(3.0)- 40DS-0.5V(57)	683-0004-8-57	40	15.0	11.8	10.5	9.5	12.0	14.8			
DF17(3.0)- 50DS-0.5V(57)	683-0005-0-57	50	17.5	14.3	13.0	12.0	14.5	17.3			
DF17(3.0)- 60DS-0.5V(57)	683-0006-3-57	60	20.0	16.8	15.5	14.5	17.0	19.8			
DF17(3.0)- 70DS-0.5V(57)	683-0007-6-57	70	22.5	19.3	18.0	17.0	19.5	22.3			
DF17(3.0)- 80DS-0.5V(57)	683-0008-9-57	80	25.0	21.8	20.5	19.5	22.0	24.8			

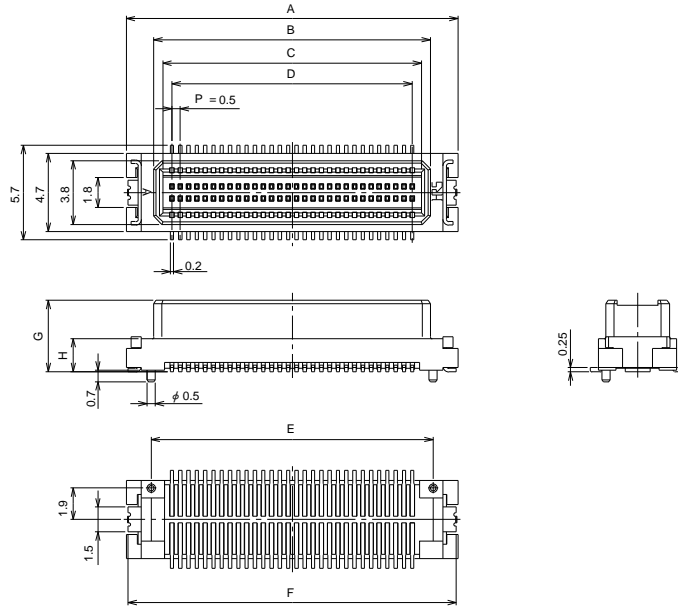
### Stacking Height: 6mm, 8mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(4.0)-20DS-0.5V(57)	683-0042-7-57	20	10.0	6.8	5.5	4.5	7.0	9.8	4.5	4.0	YES
DF17(4.0)-30DS-0.5V(57)	683-0043-0-57	30	12.5	9.3	8.0	7.0	9.5	12.3			
DF17(4.0)-40DS-0.5V(57)	683-0044-2-57	40	15.0	11.8	10.5	9.5	12.0	14.8			
DF17(4.0)-50DS-0.5V(57)	683-0045-5-57	50	17.5	14.3	13.0	12.0	14.5	17.3			
DF17(4.0)-60DS-0.5V(57)	683-0046-8-57	60	20.0	16.8	15.5	14.5	17.0	19.8			
DF17(4.0)-70DS-0.5V(57)	683-0047-0-57	70	22.5	19.3	18.0	17.0	19.5	22.3			
DF17(4.0)-80DS-0.5V(57)	683-0048-3-57	80	25.0	21.8	20.5	19.5	22.0	24.8			

Note 1. In regard to this product, the embossed tape packaging is the standard packaging. (1000 pcs./ reel.)

Note 2. If the without boss specification is required, please contact HRS sales department.

**Header** With metal fitting



● Stacking Height: 4mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(1.0H)-26DP-0.5V(57)	683-0257-3-57	26	11.5	8.2	7.1	6.0	8.5	11.3	3.3	1.0	YES
DF17(1.0H)-30DP-0.5V(57)	683-0272-7-57	30	12.5	9.2	8.1	7.0	9.5	12.3			
DF17(1.0H)-60DP-0.5V(57)	683-0365-6-57	60	20.0	16.7	15.6	14.5	17.0	19.8			
DF17(1.0H)-70DP-0.5V(57)	683-0397-2-57	70	22.5	19.2	18.1	17.0	19.5	22.3			
DF17(1.0H)-80DP-0.5V(57)	683-0373-4-57	80	25.0	21.7	20.6	19.5	22.0	24.8			

● Stacking Height: 5mm, 6mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(2.0)- 20DP-0.5V(57)	683-0082-1-57	20	10.0	6.7	5.6	4.5	7.0	9.8	4.3	2.0	YES
DF17(2.0)- 30DP-0.5V(57)	683-0083-4-57	30	12.5	9.2	8.1	7.0	9.5	12.3			
DF17(2.0)- 40DP-0.5V(57)	683-0084-7-57	40	15.0	11.7	10.6	9.5	12.0	14.8			
DF17(2.0)- 50DP-0.5V(57)	683-0085-0-57	50	17.5	14.2	13.1	12.0	14.5	17.3			
DF17(2.0)- 60DP-0.5V(57)	683-0086-2-57	60	20.0	16.7	15.6	14.5	17.0	19.8			
DF17(2.0)- 70DP-0.5V(57)	683-0087-5-57	70	22.5	19.2	18.1	17.0	19.5	22.3			
DF17(2.0)- 80DP-0.5V(57)	683-0088-8-57	80	25.0	21.7	20.6	19.5	22.0	24.8			

● Stacking Height: 7mm, 8mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(4.0)-20DP-0.5V(57)	683-0122-4-57	20	10.0	6.7	5.6	4.5	7.0	9.8	6.3	4.0	YES
DF17(4.0)-30DP-0.5V(57)	683-0123-7-57	30	12.5	9.2	8.1	7.0	9.5	12.3			
DF17(4.0)-40DP-0.5V(57)	683-0124-0-57	40	15.0	11.7	10.6	9.5	12.0	14.8			
DF17(4.0)-50DP-0.5V(57)	683-0125-2-57	50	17.5	14.2	13.1	12.0	14.5	17.3			
DF17(4.0)-60DP-0.5V(57)	683-0126-5-57	60	20.0	16.7	15.6	14.5	17.0	19.8			
DF17(4.0)-70DP-0.5V(57)	683-0127-8-57	70	22.5	19.2	18.1	17.0	19.5	22.3			
DF17(4.0)-80DP-0.5V(57)	683-0128-0-57	80	25.0	21.7	20.6	19.5	22.0	24.8			

● Stacking Height: 5.5mm,6.5mm

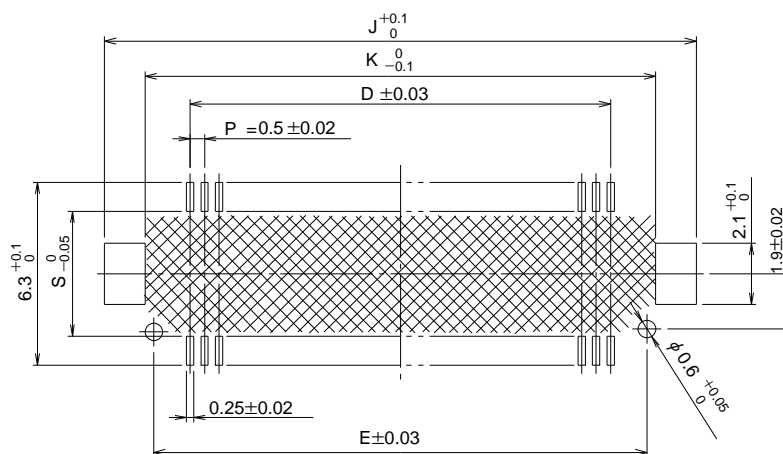
Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	G	H	RoHS
DF17(2.5)-26DP-0.5V(57)	683-0245-4-57	26	11.5	8.2	7.1	6.0	8.5	11.3	4.8	2.5	YES
DF17(2.5)-80DP-0.5V(57)	683-0168-5-57	80	25.0	21.7	20.6	19.5	22.0	24.8			

Note 1. In regard to this product, the embossed tape packaging is the standard packaging. (1000 pcs./reel.)

Note 2. If the without boss specification is required, please contact HRS sales department.

## PCB mounting pattern


- Receptacle
- Header



Number of Contacts	D	E	J	K
20	4.5	7.0	10.4	7.6
26	6.0	8.5	11.9	9.1
30	7.0	9.5	12.9	10.1
40	9.5	12.0	15.4	12.6
50	12.0	14.5	17.9	15.1
60	14.5	17.0	20.4	17.6
70	17.0	19.5	22.9	20.1
80	19.5	22.0	25.4	22.6

S	
Receptacle	4.3
Header	4

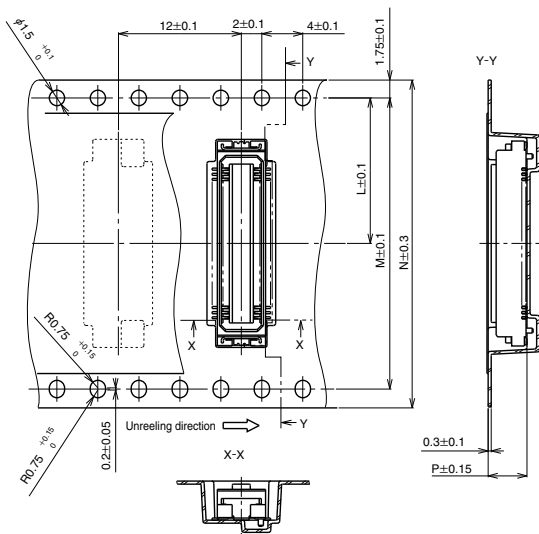
\* The recommended solder paste thickness is 150 $\mu$ m.

- Note 1.  If the pattern is included in the shaded area, and not treated with resist, it could touch the connector contact.
- Note 2. If the boss isn't included, the boss hole shown in the above figure isn't required.

## ■ Packaging Specification

### ● Embossed Carrier Tape Dimensions

#### ■ Receptacle



Connector	L	M	P	Q	R
DF17#(3.0)-20DS-0.5V	11.5	24	3.8	25.5	330
DF17#(3.0)-30DS-0.5V	11.5	24	3.8	25.5	330
DF17#(3.0)-40DS-0.5V	11.5	24	3.8	25.5	330
DF17#(3.0)-26DS-0.5V	11.5	24	3.8	25.5	330

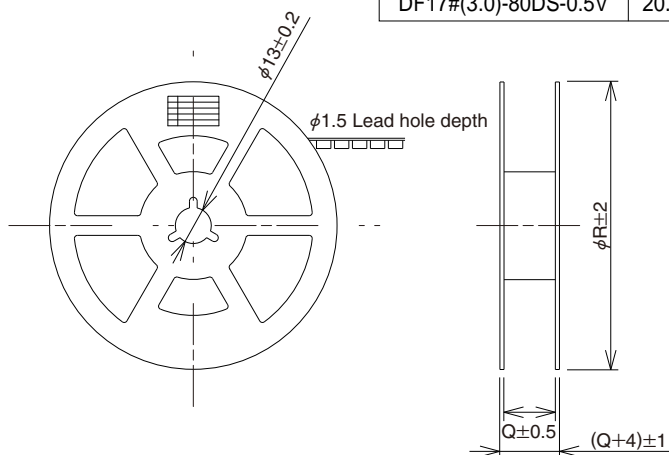
Connector	L	M	N	P	Q	R
DF17#(3.0)- 50DS-0.5V	14.2	28.4	32	3.8	33.5	330
DF17#(3.0)- 60DS-0.5V	14.2	28.4	32	3.8	33.5	330
DF17#(3.0)- 70DS-0.5V	20.2	40.4	44	3.8	45.5	330
DF17#(3.0)- 80DS-0.5V	20.2	40.4	44	3.8	45.5	330

Connector	L	N	P	Q	R
DF17#(4.0)-20DS-0.5V	11.5	24	4.8	25.5	330
DF17#(4.0)-30DS-0.5V	11.5	24	4.8	25.5	330
DF17#(4.0)-40DS-0.5V	11.5	24	4.8	25.5	330

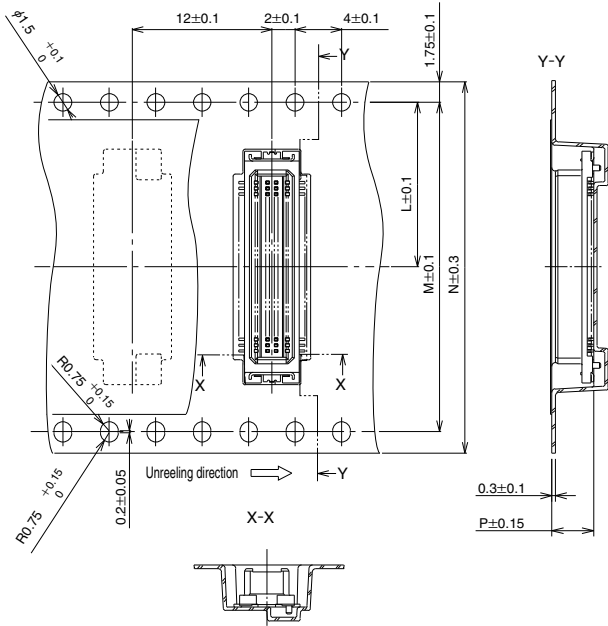
Connector	L	M	N	P	Q	R
DF17#(4.0)-50DS-0.5V	14.2	28.4	32	4.8	33.5	330
DF17#(4.0)-60DS-0.5V	14.2	28.4	32	4.8	33.5	330
DF17#(4.0)-70DS-0.5V	20.2	40.4	44	4.8	45.5	330
DF17#(4.0)-80DS-0.5V	20.2	40.4	44	4.8	45.5	330

Connector	L	M	N	P	Q	R
DF17#(3.0)-26DS-0.5V	11.5	-	24	3.3	25.5	330
DF17#(3.0)-30DS-0.5V	11.5	-	24	3.3	25.5	330
DF17#(3.0)-60DS-0.5V	14.2	28.4	32	3.3	33.5	330
DF17#(3.0)-70DS-0.5V	20.2	40.4	44	3.3	45.5	330
DF17#(3.0)-80DS-0.5V	20.2	40.4	44	3.3	45.5	330

### ● Reel Dimensions



Header



Connector	L	N	P	Q	R
DF17#(2.0)-20DP-0.5V	11.5	24	4.6	25.5	330
DF17#(2.0)-30DP-0.5V	11.5	24	4.6	25.5	330
DF17#(2.0)-40DP-0.5V	11.5	24	4.6	25.5	330
DF17#(2.5)-26DP-0.5V	11.5	24	5.1	25.5	330
DF17#(2.5)-80DP-0.5V	20.2	44	5.1	45.5	330

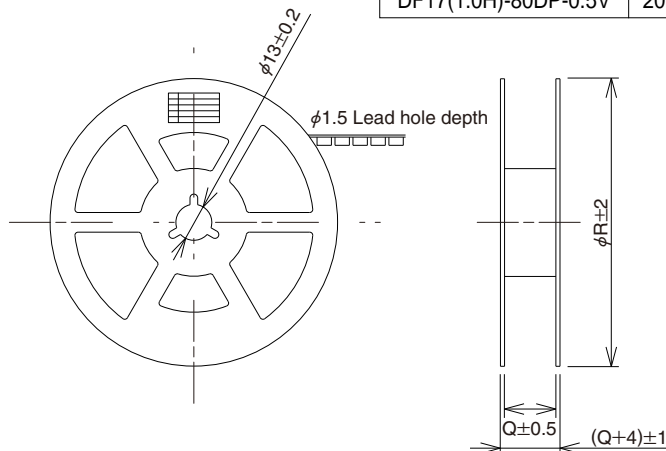
Connector	L	M	N	P	Q	R
DF17#(2.0)- 50DP-0.5V	14.2	28.4	32	4.6	33.5	330
DF17#(2.0)- 60DP-0.5V	14.2	28.4	32	4.6	33.5	330
DF17#(2.0)- 70DP-0.5V	20.2	40.4	44	4.6	45.5	330
DF17#(2.0)- 80DP-0.5V	20.2	40.4	44	4.6	45.5	330

Connector	L	N	P	Q	R
DF17#(4.0)-20DP-0.5V	11.5	24	6.6	25.5	380
DF17#(4.0)-30DP-0.5V	11.5	24	6.6	25.5	380
DF17#(4.0)-40DP-0.5V	11.5	24	6.6	25.5	380

Connector	L	M	N	P	Q	R
DF17#(4.0)-50DP-0.5V	14.2	28.4	32	6.6	33.5	380
DF17#(4.0)-60DP-0.5V	14.2	28.4	32	6.6	33.5	380
DF17#(4.0)-70DP-0.5V	20.2	40.4	44	6.6	45.5	380
DF17#(4.0)-80DP-0.5V	20.2	40.4	44	6.6	45.5	380

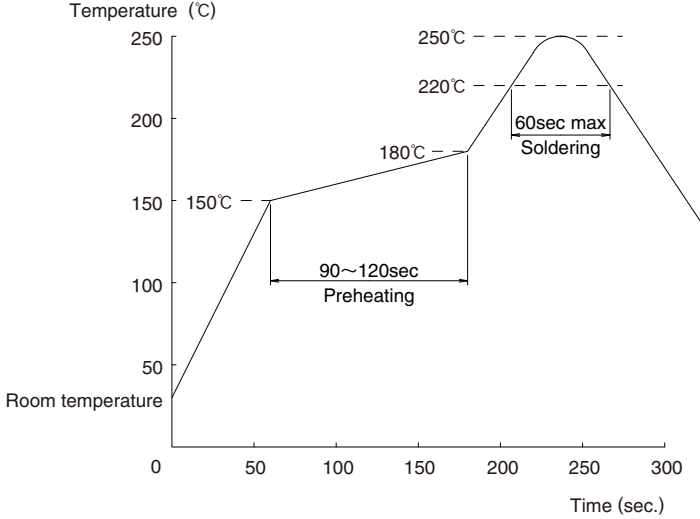
Connector	L	M	N	P	Q	R
DF17(1.0H)-26DP-0.5V	11.5	-	24	3.6	25.5	330
DF17(1.0H)-30DP-0.5V	11.5	-	24	3.6	25.5	330
DF17(1.0H)-60DP-0.5V	14.2	28.4	32	3.6	33.5	330
DF17(1.0H)-70DP-0.5V	20.2	40.4	44	3.6	45.5	330
DF17(1.0H)-80DP-0.5V	20.2	40.4	44	3.6	45.5	330

Reel Dimensions





## ■ Precautions

<p>1. Recommended Temperature Profile (SMT)</p>	 <p>Note1: Up to 2 cycles of Reflow soldering are possible under the same conditions, provided that there is a return to normal temperature between the first and second cycle.</p> <p>Note2: The temperature profile indicates the board surface temperature at the point of contacts with the connector terminals.</p>
<p>2. Recommended Manual Soldering Condition (SMT)</p>	<p>Soldering iron temperature: 350±3°C Soldering time: Within 2 seconds</p>
<p>3. Recommended Screen Thickness (SMT)</p>	<p>0.15mm</p>
<p>4. Board Warp(SMT)</p>	<p>Max 0.02mm in the connector center area, based on the both connector edges</p>
<p>5. Cleaning Condition</p>	<p>Refer to the "Nylon Connector Use Hand book".</p>
<p>6. Cautions</p>	<ul style="list-style-type: none"> <li>■ The header is designed in a structure where contacts are exposed. Touching it with bare hands would cause contact failure or electrostatic element damage.</li> <li>■ Where no board is mounted, the insertion or extraction will cause damage or contact deformation.</li> <li>■ Avoid retaining the board with the connector only, and fix the board by any other means than the connector.</li> <li>■ Excessive scoop insertion or extraction may result in damage.</li> <li>■ In the manual soldering process, don't carry out the flux coating which will cause a flux blister on the connector.</li> <li>■ The color phase of this product may be slightly different from that of the formed product according to the manufacturing lot. However, the difference doesn't affect the performance.</li> </ul>

# Mouser Electronics

Authorized Distributor

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## Hirose Electric:

[DF17\(3.0\)-20DS-0.5V\(57\)](#) [DF17\(3.0\)-30DS-0.5V\(57\)](#) [DF17\(3.0\)-40DS-0.5V\(57\)](#) [DF17\(3.0\)-50DS-0.5V\(57\)](#)  
[DF17\(3.0\)-60DS-0.5V\(57\)](#) [DF17\(3.0\)-70DS-0.5V\(57\)](#) [DF17\(3.0\)-80DS-0.5V\(57\)](#) [DF17\(3.0\)-100DS-0.5V\(57\)](#)  
[DF17A\(3.0\)-40DS-0.5V\(57\)](#) [DF17A\(3.0\)-50DS-0.5V\(57\)](#) [DF17A\(3.0\)-60DS-0.5V\(57\)](#) [DF17A\(3.0\)-70DS-0.5V\(57\)](#)  
[DF17A\(3.0\)-80DS-0.5V\(57\)](#) [DF17A\(3.0\)-100DS-0.5V\(57\)](#) [DF17B\(3.0\)-20DS-0.5V\(57\)](#) [DF17B\(3.0\)-30DS-0.5V\(57\)](#)  
[DF17B\(3.0\)-40DS-0.5V\(57\)](#) [DF17B\(3.0\)-50DS-0.5V\(57\)](#) [DF17B\(3.0\)-60DS-0.5V\(57\)](#) [DF17B\(3.0\)-70DS-0.5V\(57\)](#)  
[DF17B\(3.0\)-80DS-0.5V\(57\)](#) [DF17B\(3.0\)-100DS-0.5V\(57\)](#) [DF17C\(3.0\)-20DS-0.5V\(57\)](#) [DF17C\(3.0\)-30DS-0.5V\(57\)](#)  
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[DF17C\(4.0\)-70DS-0.5V\(57\)](#) [DF17C\(4.0\)-80DS-0.5V\(57\)](#) [DF17\(2.0\)-20DP-0.5V\(57\)](#) [DF17\(2.0\)-30DP-0.5V\(57\)](#)  
[DF17\(2.0\)-40DP-0.5V\(57\)](#) [DF17\(2.0\)-50DP-0.5V\(57\)](#) [DF17\(2.0\)-60DP-0.5V\(57\)](#) [DF17\(2.0\)-70DP-0.5V\(57\)](#) [DF17\(2.0\)-](#)  
[80DP-0.5V\(57\)](#) [DF17\(2.0\)-100DP-0.5V\(57\)](#) [DF17A\(2.0\)-20DP-0.5V\(57\)](#) [DF17A\(2.0\)-40DP-0.5V\(57\)](#) [DF17A\(2.0\)-](#)  
[100DP-0.5V\(57\)](#) [DF17B\(2.0\)-20DP-0.5V\(57\)](#) [DF17B\(2.0\)-30DP-0.5V\(57\)](#) [DF17B\(2.0\)-40DP-0.5V\(57\)](#) [DF17B\(2.0\)-](#)  
[50DP-0.5V\(57\)](#) [DF17B\(2.0\)-60DP-0.5V\(57\)](#) [DF17B\(2.0\)-70DP-0.5V\(57\)](#) [DF17B\(2.0\)-80DP-0.5V\(57\)](#) [DF17B\(2.0\)-](#)  
[100DP-0.5V\(57\)](#) [DF17C\(2.0\)-20DP-0.5V\(57\)](#) [DF17C\(2.0\)-30DP-0.5V\(57\)](#) [DF17C\(2.0\)-40DP-0.5V\(57\)](#) [DF17C\(2.0\)-](#)  
[50DP-0.5V\(57\)](#) [DF17C\(2.0\)-60DP-0.5V\(57\)](#) [DF17C\(2.0\)-70DP-0.5V\(57\)](#) [DF17C\(2.0\)-80DP-0.5V\(57\)](#) [DF17C\(2.0\)-](#)  
[100DP-0.5V\(57\)](#) [DF17\(4.0\)-20DP-0.5V\(57\)](#) [DF17\(4.0\)-30DP-0.5V\(57\)](#) [DF17\(4.0\)-40DP-0.5V\(57\)](#) [DF17\(4.0\)-40DP-](#)  
[0.5V\(58\)](#) [DF17\(4.0\)-40DP-0.5V\(67\)](#) [DF17\(4.0\)-50DP-0.5V\(57\)](#) [DF17\(4.0\)-60DP-0.5V\(57\)](#) [DF17\(4.0\)-70DP-0.5V\(57\)](#)  
[DF17\(4.0\)-80DP-0.5V\(57\)](#) [DF17A\(4.0\)-20DP-0.5V\(57\)](#) [DF17A\(4.0\)-40DP-0.5V\(57\)](#) [DF17A\(4.0\)-50DP-0.5V\(57\)](#)  
[DF17A\(4.0\)-60DP-0.5V\(57\)](#) [DF17A\(4.0\)-70DP-0.5V\(57\)](#) [DF17A\(4.0\)-80DP-0.5V\(57\)](#) [DF17B\(4.0\)-20DP-0.5V\(57\)](#)  
[DF17B\(4.0\)-30DP-0.5V\(57\)](#) [DF17B\(4.0\)-40DP-0.5V\(57\)](#) [DF17B\(4.0\)-40DP-0.5V\(76\)](#)