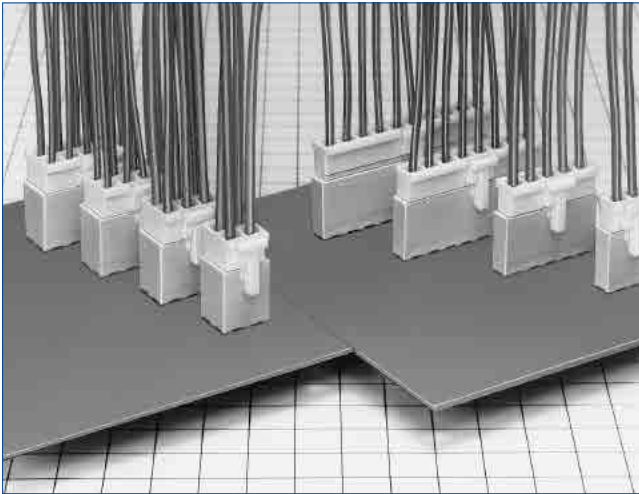


# 5mm Pitch Miniature Potting Connectors for Secondary Power Supply

## DF5 Series



Single row type

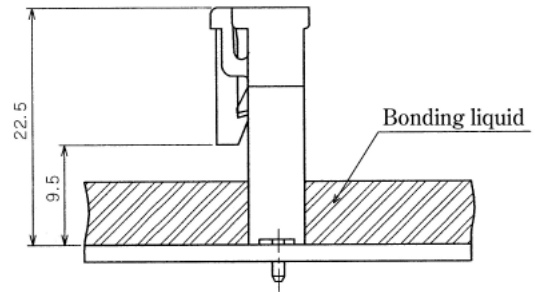


Fig.1-1

## ■ Features

### 1. Potting Product

This connector is capable of potting 9mm maximum, and 22.5mm mounting height is a low profile. (Fig.1)

### 2. Prevent Mis-insertion

When the socket and pin header are mated, this connector is equipped with a mechanism to prevent reverse insertion or dissimilar contact insertion.

### 3. Means to Prevent Solder Cracks

The pin header employs glass enforced resin, and takes countermeasures to prevent solder cracks due to heat shrinkage.

### 4. Prevent Reverse Insertion in Printed Board

Boss is added to the pin header, and prevents reverse insertion in the printed board.

### 5. Full Lock Mechanism

The outer lock system employs full lock mechanism.

### 6. Current Capacity of 8A

Power can be supplied at 8A maximum. Specification will change according to applicable cable, number of contacts, number of rows. For further information, refer to product specifications as listed on next page.

### 7. UL and C-UL Certified

### 8. Glow Wire Compliance (Compliant with IEC 60695-2-11)

Double row type

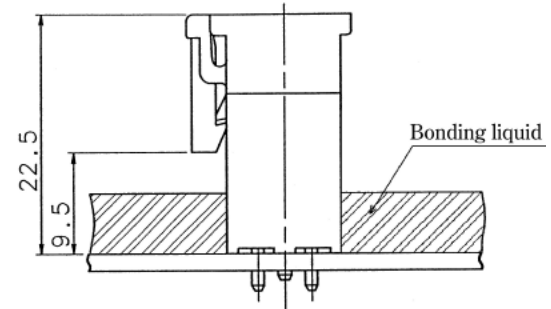


Fig.1-2

## Product Specifications

Rating	Current rating	No. of rows	No. of contacts	18 AWG	20 AWG	22 AWG	Operating Temperature Range Operating Moisture Range	-35 to +85°C(Note 2) 40 to 80%
		Single row	2 to 8	8A/pin	6A/pin	5A/pin		
		Double row	4					
			8	7A/pin				
	10							
Voltage rating	Specification	500V AC/DC	UL/C-UL File No. and Recognition No.			Storage Temperature Range	-10 to +60°C(Note 3) 40 to 70%(Note 3)	
	UL/C-UL	500V AC/DC	UL : E52653 C-UL : E52653	Storage Humidity Range				

Item	Specification	Condition
1. Insulation Resistance	1000MΩ min.	500V DC
2. Withstanding voltage	No flashover or insulation breakdown.	1500V AC/1minute
3. Contact Resistance	30mΩ max.	100mA
4. Single Insertion/Extraction Force	0.3N (30gt) min., 4.5N (450gt) max.	Measured with 1.14±0.002mm steel pin
5. Vibration	No electrical discontinuity of 10μs or more	Frequency : 10 to 55Hz, single amplitude of 0.75mm, 2 hours in each of the 3 directions.
6. Humidity (Steady state)	Contact resistance : 30mΩ max., Insulation resistance : 500MΩ min.	96 hours at temperature of 40°C and humidity of 90% to 95%
7. Temperature Cycle	Contact resistance : 30mΩ max., Insulation resistance : 1000MΩ min.	(-55°C : 30 minutes → 15 to 35°C : 10 minutes → 85°C : 30 minutes → 5 to 35°C : 10 minutes ) 5 cycles
8. Durability (Mating/un-mating)	Contact resistance : 30mΩ max.	30 cycles
9. Resistance to Soldering heat	No deformation of components affecting performance.	Flow : 260°C for 10 seconds
		Manual soldering : 350°C for 3 seconds

Note 1 : Includes temperature rise caused by current flow.

Note 2 : The connector should be completely dry (no condensation present).

Note 3 : The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

Note 4 : Information contained in this catalog represents general requirements for this Series.  
Contact us for the drawings and specifications for a specific part number shown.

## Materials / Finish

Product	Part	Material	Finish	Remarks
Crimping Socket	Insulator	Polyamide	White	UL94V-0
Crimping Contact for Socket	Contact	Phosphor bronze	Tin plated	——
Pin header	Insulator	Polyamide	Beige	UL94V-0
	Contact	Brass	Tin plated	——

## Product Number Structure

Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

### Connector

**DF5A - \* S - 5 C**

①                      ② ③                      ④ ⑤

① Series Name : DF5A	④ Contact Pitch : 5mm
② Number of contacts : Single row : 2 to 8 Double row : 4 to 12	⑤ Contact type C : Crimping Socket DSA : Straight pin header
③ Connector type S : Single row socket DS : Double row socket P : Single row header DP : Double row header	

### Contact

**DF5A - 1822 SCF**

①                      ②                      ③

① Applicable cable type None : UL 1007 equivalent (jacket diameter 1.5 to 2.2mm) A : UL 1015 equivalent (jacket diameter 2.2 to 2.9mm)	③ Packaging type SCF : Socket contact / reel SC : Socket contact / pack
② Applicable cable size 1822 : 18 to 22 AWG	

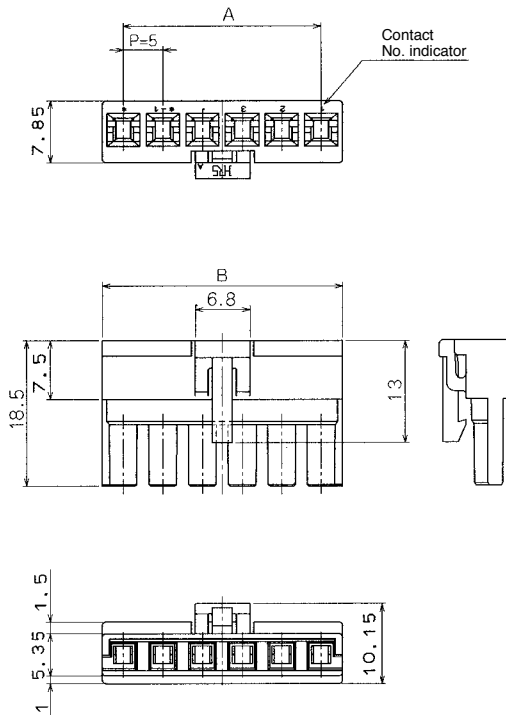
### Single Row Socket



Contact Inserted

Unit : mm

Part No.	HRS No.	No. of Contacts	A	B	RoHS2
DF5A- 2S-5C	676-0007-8	2	5.0	10.5	YES
DF5A- 3S-5C	676-0008-0	3	10.0	15.5	
DF5A- 5S-5C	676-0010-2	5	20.0	25.5	
DF5A- 6S-5C	676-0011-5	6	25.0	30.5	
DF5A- 8S-5C	676-0013-0	8	35.0	40.5	



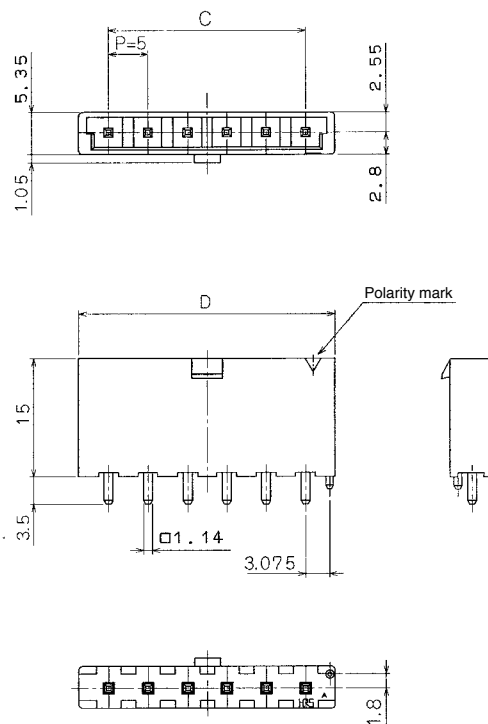
Note : A packaging quantity is delivered by the bag unit (100 pcs.).

### Single Row Pin Header



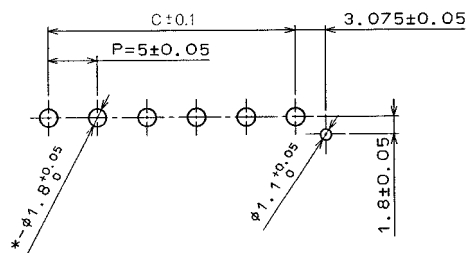
Unit : mm

Part No.	HRS No.	No. of Contacts	C	D	RoHS2
DF5A- 2P-5DSA(35)	676-0016-9 35	2	5.0	12.5	YES
DF5A- 3P-5DSA(35)	676-0017-1 35	3	10.0	17.5	
DF5A- 5P-5DSA(35)	676-0019-7 35	5	20.0	27.5	
DF5A- 6P-5DSA(35)	676-0020-6 35	6	25.0	32.5	
DF5A- 8P-5DSA(35)	676-0022-1 35	8	35.0	42.5	

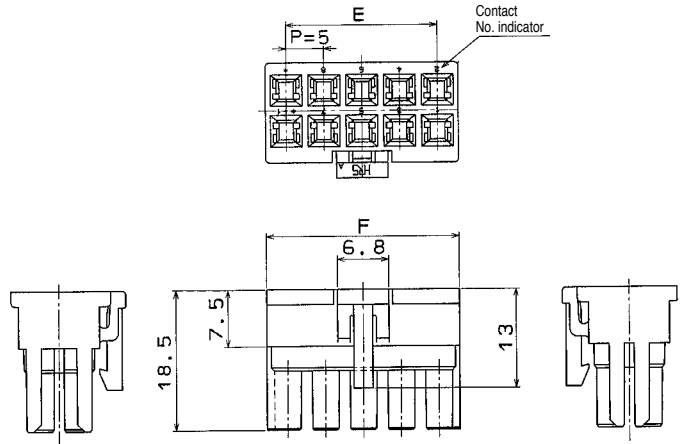
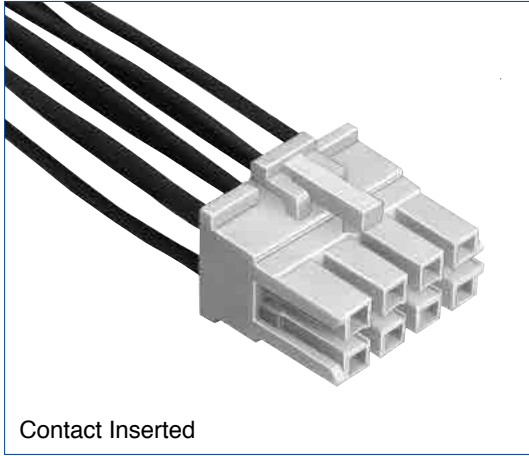


Note : A packaging quantity is delivered by the bag unit (100 pcs.).

### PCB Mounting Pattern (Board thickness = 1.6±0.1)

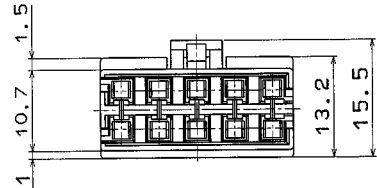


### Double Row Socket



Unit : mm

Part No.	HRS No.	No. of Contacts	E	F	RoHS2
DF5A- 4DS-5C	676-0025-0	4	5.0	10.5	YES
DF5A- 8DS-5C	676-0027-5	8	15.0	20.5	
DF5A-10DS-5C	676-0028-8	10	20.0	25.5	
DF5A-12DS-5C	676-0036-6	12	25.0	30.5	



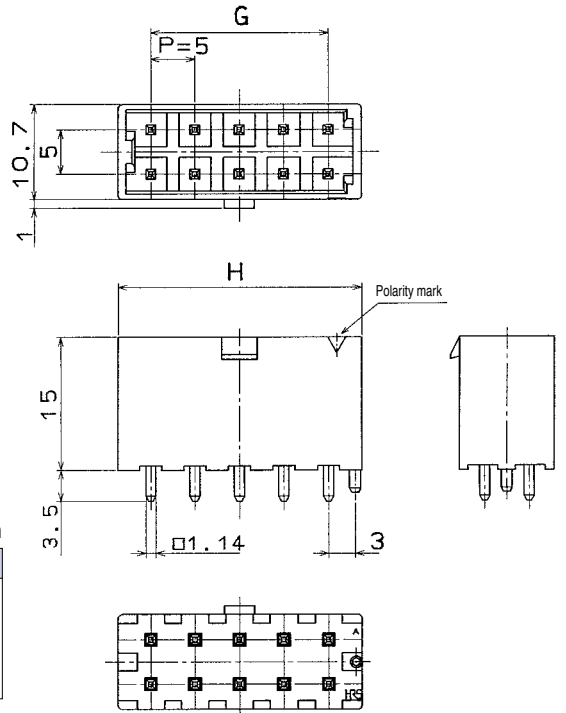
Note : A packaging quantity is delivered by the bag unit (100 pcs.).

### Double Row Pin Header



Unit : mm

Part No.	HRS No.	No. of Contacts	G	H	RoHS2
DF5A- 4DP-5DSA(35)	676-0029-0 35	4	5.0	12.5	YES
DF5A- 8DP-5DSA(35)	676-0031-2 35	8	15.0	22.5	
DF5A-10DP-5DSA(35)	676-0032-5 35	10	20.0	27.5	
DF5A-12DP-5DSA(35)	676-0033-8 35	12	25.0	32.5	



Note : A packaging quantity is delivered by the bag unit (100 pcs.).

### PCB Mounting Pattern (Board thickness = $1.6 \pm 0.1$ )

