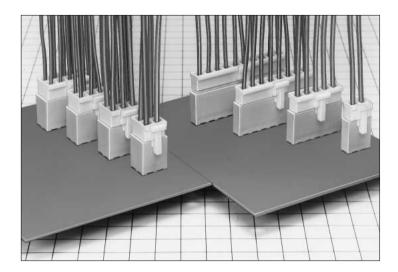
5mm Pitch Miniature Potting Connector for Secondary Power Supply

DF5 Series



■Features

1. Potting Product

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

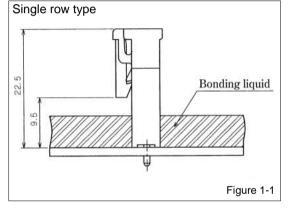
Boss is added to the pin header, and prevents reverse insertion in the printed board.

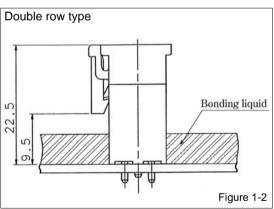
5. Full Lock Mechanism

The outer lock system employs full lock mechanism.

6. Current Capacity of 8A

Power can be supplied at 8 A 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.





■Applications

Business machines, industrial equipment, consumer appliances (hot water supply, washing machines, refrigerator) etc.

■Product Specifications

		No. of rows	No. of contacts	AWG#18	AWG#20	AWG#22		
		Single row	2 to 10	8A	6A	5A	Operating Temperature Range	–35 to +85°C(Note 1)
			4	8A	6A	5A	Operating Moisture Range	20 to 80%
			6	8A	6A	5A		
Rating	Current rating		8	7A	6A	5A		
		Double row	10	7A	6A	5A		
			12	7A	6A	4A	Storage Temperature Range	–10 to +60°C(Note 2)
			14	7A	5A	4A	Storage Humidity Range	40 to 70%(Note 2)
			16	7A	5A	4A		
	Voltage rating			500V AC				

Item	Specification	Condition		
1. Insulation Resistance	1000M ohms min.	500V DC		
2. Withstanding voltage	No flashover or insulation breakdown.	1500V AC/1 minute		
3. Contact Resistance	30m ohms max.	100mA		
4. Single Insertior/	0.3N (30gt) min., 4.5N (450gt) max.	Measured with 1.14±0.002mm steel pin		
Extraction Force	0.514 (50gt) 11111., 4.514 (450gt) 111ax.			
5. Vibration	No electrical discontinuity of 10μ s or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.		
6. Humidity (Steady state)	Contact resistance: 30m ohms max., Insulation resistance: 500M ohms min.	96 hours at temperature of 40°C and humidity of 90% to 95%		
7. Temperature Cycle	No damage, cracks, or parts looseness.	(-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: 30m ohms max.	30 cycles		
9.Resistance to	No deformation of	Flow: 260℃ for 10 seconds		
Soldering heat	components affecting performance.	Manual soldering: 300℃ for 3 seconds		

Note 1: Includes temperature rise caused by current flow.

Note 2: 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.

■Material

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	
Firrieadel	Contact	Brass	Tin plated		

Note: Hirose's tin plating process takes measures against whisker.

■Ordering Information

Connector

 $\frac{DF5A}{4} - \frac{*}{2} \frac{S}{6} - \frac{5}{4} \frac{C}{6}$

1	Series Name: DF 5A		4	Contact Pitch: 5mm
2	Numbe	er of contacts: Single row: 2 to 10	6	Contact type
	Double row: 4 to 10			C : Crimping Socket
€	Conne	Connector type		DSA: Straight pin header
	S	: Single row socket		
	DS	: Double row socket		
	Р	: Single row header		
	DP	: Double row header		

Contact

DF5A - 1822 SCF

0	2	•

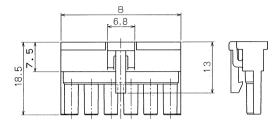
0	Applicable cable type None: UL 1007 A: UL 1015	packaging type SCF: Socket contact, reel packaging SC: Socket contact, bag packaging
2	Applicable cable size 1822: AWG#18~#22	

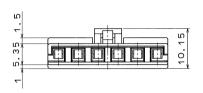
■Single Row Socket



Product No	CL No.	Number of Contacts	Α	В	RoHS
DF5A- 2S-5C	676-0007-8	2	5.0	10.5	
DF5A- 3S-5C	676-0008-0	3	10.0	15.5	
DF5A- 4S-5C	676-0009-3	4	15.0	20.5	
DF5A- 5S-5C	676-0010-2	5	20.0	25.5	
DF5A- 6S-5C	676-0011-5	6	25.0	30.5	YES
DF5A- 7S-5C	676-0012-8	7	30.0	35.5	
DF5A- 8S-5C	676-0013-0	8	35.0	40.5	
DF5A- 9S-5C	676-0014-3	9	40.0	45.5	
DF5A-10S-5C	676-0015-6	10	45.0	50.5	

P=5



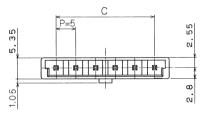


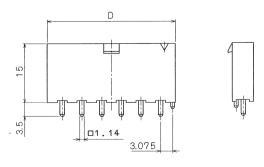
Note: A packaging quantity is delivered by the bag unit (100 pcs.).

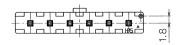
■Single Row Pin Header



Part Number	CL No.	Number of Contacts	С	D	RoHS
DF5A- 2P-5DSA	676-0016-9	2	5.0	12.5	
DF5A- 3P-5DSA	676-0017-1	3	10.0	17.5	
DF5A- 4P-5DSA	676-0018-4	4	15.0	22.5	
DF5A- 5P-5DSA	676-0019-7	5	20.0	27.5	
DF5A- 6P-5DSA	676-0020-6	6	25.0	32.5	YES
DF5A- 7P-5DSA	676-0021-9	7	30.0	37.5	
DF5A- 8P-5DSA	676-0022-1	8	35.0	42.5	
DF5A- 9P-5DSA	676-0023-4	9	40.0	47.5	
DF5A-10P-5DSA	676-0024-7	10	45.0	52.5	

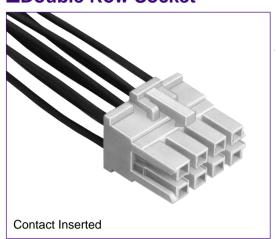


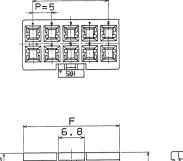


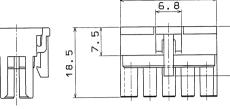


Note: A packaging quantity is delivered by the bag unit (100 pcs.).

■Double Row Socket

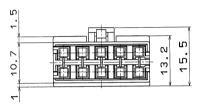








Part Number	CL No.	Number of Contacts	Е	F	RoHS
DF5A- 4DS-5C	676-0025-0	4	5.0	10.5	
DF5A- 6DS-5C	676-0026-2	6	10.0	15.5	
DF5A- 8DS-5C	676-0027-5	8	15.0	20.5	
DF5A-10DS-5C	676-0028-8	10	20.0	25.5	YES
DF5A-12DS-5C	676-0036-6	12	25.0	30.5	
DF5A-14DS-5C	676-0037-9	14	30.0	35.5	
DF5A-16DS-5C	676-0038-1	16	35.0	40.5	



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

■Double Row Pin Header



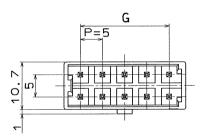
Part Number	CL No.	Number of Contacts	G	Н	RoHS
DF5A- 4DP-5DSA	676-0029-0	4	5.0	12.5	
DF5A- 6DP-5DSA	676-0030-0	6	10.0	17.5	
DF5A- 8DP-5DSA	676-0031-2	8	15.0	22.5	
DF5A-10DP-5DSA	676-0032-5	10	20.0	27.5	YES
DF5A-12DP-5DSA	676-0033-8	12	25.0	32.5	
DF5A-14DP-5DSA	676-0034-0	14	30.0	37.5	

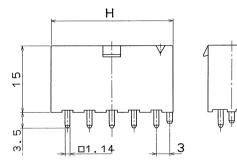
16

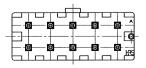
676-0035-3

42.5

35.0



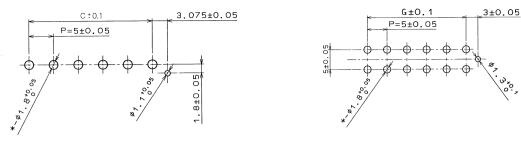




Note: A packaging quantity is delivered by the bag unit (100 pcs.).

DF5A-16DP-5DSA

▶PCB mounting pattern (Board thickness = 1.6±0.1)

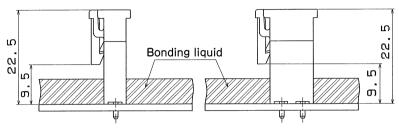


DF5A-*P-5DSA

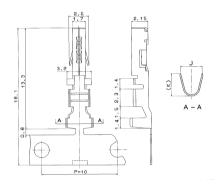
DF5A-*DP-5DSA

Note 1. For C and G sizes, please refer to pages where individual product patterns are shown.

♠ Application Pattern



■Socket Crimping Contact



Part Number	Part Number HRS. No.		Applicable Cable				Quantity	_	К	RoHS
Fait Number	1113.110.	UL style	Jacket dia.	AWG size	Contact construction	Туре	Quaritity	J	IX	10110
DF5-1822SCF(51)	676-0001-1-51	1007	1.5 to 2.2	AWG#18	43 cores/0.16mm	Reel	5,000	2.8	3	
DF5-1822SC(51)	676-0002-4-51	1007	1.5 10 2.2	AWG#10	21 cores/0.18mm	Bag	100	2.0	3	YES
DF5A-1822SCF(51)	676-0003-7-51	1015	2.2 to 3.2		17 cores/0.16mm	Reel	5,000	3.8	4	11.5
DF5A-1822SC(51)	676-0004-0-51	1015	2.2 10 3.2	AVVG#22	17 Cores/o. Torrini	Bag	100	3.0	4	

Note 1. The applicable cable conductor is a tin plated and annealed copper wire.

Note 2. If other cables are used instead of the applicable cable, contact the HRS Sales Department.

● Applicable Crimping Tools

Туре	Item	Part Number	CL No.	Applicable Contact
	Press unit	CM-105	901-0005-4	
Auto- matic	Applicator	AP105-DF5-1822S	901-4542-5	DF5-1822SCF(51)
matic		AP105-DF5A-1822S	901-4546-6	DF5A-1822SCF(51)
Manual	Manual crimping tool	DF5-1822/CR-HT	550-0264-0	DF5-1822SC(51)
Ivianuai		DF5A-1822/CR-HT	550-0265-2	DF5A-1822SC(51)
_	Extraction tool	RP13-PC-TP	150-0021-5	DF5/DF5A-1822SCF(51)

Note: If any trouble has been caused due to other tools, which are not designated by Hirose, Hirose won't guarantees any product.

The product information in this catalog is for reference only. Please request the Engineering Drawing for the most current and accurate design information.

All non-RoHS products have been discontinued, or will be discontinued soon. Please check the products status on the Hirose website RoHS search at www.hirose-connectors.com, or contact your Hirose sales representative.

●Precautions

1. Recommended soldering	Flow: 250℃ for 5 seconds
condition	Manual soldering: 290℃ for 3 seconds
2. Cleaning condition	Refer to the "Nylon Connector Use Hand book"
Connecting condition	Refer to the "Nylon Connector Use Hand book"
4. Cautions	■The color phase of this product may be slightly differ from that of the formed product according to the
	manufacturing lot, and consequent storage condition, however, the difference affects no performance.
5. Precautions	Refer to the "Nylon Connector Use Hand book"