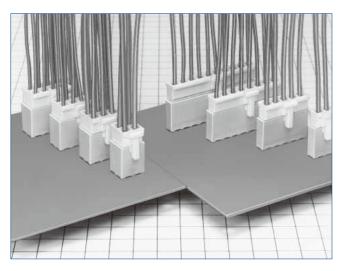
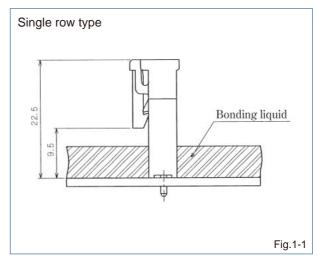
5mm Pitch Miniature Potting Connectors for Secondary Power Supply

DF5 Series





■Features

1. Potting Product

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

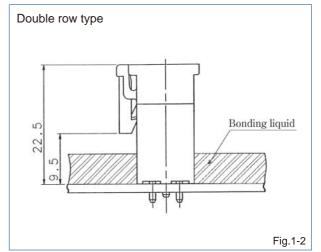
The outer lock system employs full lock mechanism.

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)



■Product Specifications

			No. of rows	No.	of contacts	18 AWG	20 AWG	22 AWG				
			Single row		2 to 8	to 8						
					4	8A/pin			Operating Temperature Range	-35 to +85°C(Note 2)		
		Current rating	Current rating Double row		6		- 6A/pin	5A/pin	Operating Moisture Range	40 to 80%		
	Rating				8							
	naung				10	7A/pin						
					12			4A/pin				
		Valta en untin e	Specific	ation	500V AC/DC			UL/C-UL File No. and Recogn		ognition No.	Storage Temperature Range	-10 to +60°C(Note 3)
		Voltage rating	UL/C-	-UL	500V AC/DC	UL C-UL	: E52653 : E52653		Storage Humidity Range	40 to 70%(Note 3)		

Item	Specification	Condition
1. Insulation Resistance	1000M Ω min.	500V DC
2. Withstanding voltage	No flashover or insulation breakdown.	1500V AC/1minute
3. Contact Resistance	$30m\Omega$ 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.	weasured with 1.14±0.002mm steel pin
5. Vibration	No electrical discontinuity of $10\mu s$ 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 : $30m\Omega$ max., Insulation resistance : $500M\Omega$ min.	96 hours at temperature of 40°C and humidity of 90% to 95%
7. Temperature Cycle	Contact resistance : $30m\Omega$ max., Insulation resistance : $1000M\Omega$ 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 : $30m\Omega$ max.	30 cycles
9.Resistance to	No deformation of	Flow: 260°C for 10 seconds
Soldering heat	components affecting performance.	Manual soldering : 350℃ 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	
Din booder	Insulator	Polyamide	Beige	UL94V-0
Pin header	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

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

1	Series Nar	me : DF5A	4	Contact Pitch : 5mm
2	Number of c	contacts : Single row : 2 to 8	6	Contact type
		Double row: 4 to 12		C : Crimping Socket
3	Connector type			DSA: Straight pin header
	S	: Single row socket		
	DS	: Double row socket		
	Р	: Single row header		
	DP	: Double row header		

Contact

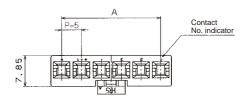
Applicable cable type Packaging type None: UL 1007 equivalent (jacket diameter 1.5 to 2.2mm) SCF: Socket contact / reel A: UL 1015 equivalent (jacket diameter 2.2 to 2.9mm) SC : Socket contact / pack Applicable cable size 1822: 18 to 22 AWG

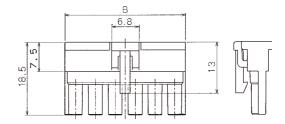
■Single Row Socket



Unit: mm

Part No.	HRS No.	No. of Contacts	Α	В	RoHS2
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	YES
DF5A- 5S-5C	676-0010-2	5	20.0	25.5	150
DF5A- 6S-5C	676-0011-5	6	25.0	30.5	
DF5A- 8S-5C	676-0013-0	8	35.0	40.5	







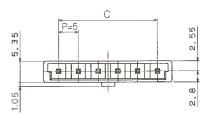
Note: A packaging quantity is delivered by the bag unit (100 pcs.).

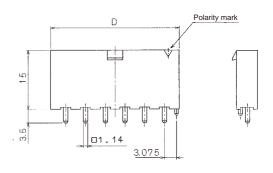
■Single Row Pin Header

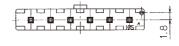


Unit: mm

Part No.	HRS No.	No. of Contacts	С	D	RoHS2
DF5A- 2P-5DSA(35)	676-0016-9 35	2	5.0	12.5	
DF5A- 3P-5DSA(35)	676-0017-1 35	3	10.0	17.5	
DF5A- 4P-5DSA(35)	676-0018-4 35	4	15.0	22.5	YES
DF5A- 5P-5DSA(35)	676-0019-7 35	5	20.0	27.5	163
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	

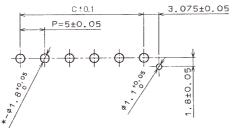






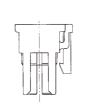
Note: A packaging quantity is delivered by the bag unit (100 pcs.).

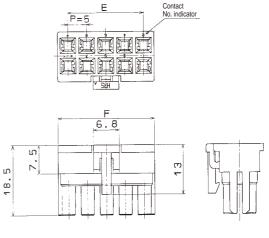
▶ PCB Mounting Pattern (Board thickness = 1.6 ± 0.1)



■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	
DF5A- 6DS-5C	676-0026-2	6	10.0	15.5	
DF5A- 8DS-5C	676-0027-5	8	15.0	20.5	YES
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

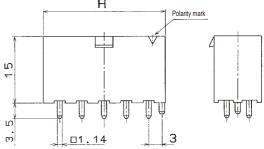


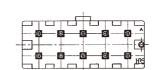


Unit: mm

B Н

P=5

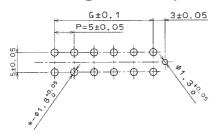




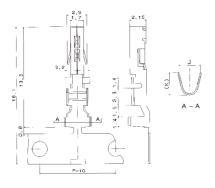
Note: A packaging quantity is delivered by the bag unit (100 pcs.).

HRS No. No. of Contacts G RoHS2 Part No. Н DF5A- 4DP-5DSA(35) 676-0029-0 35 5.0 12.5 4 DF5A- 6DP-5DSA(35) 6 10.0 17.5 676-0030-0 35 DF5A- 8DP-5DSA(35) 676-0031-2 35 8 15.0 22.5 YES 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

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



◆ Socket Crimping Contact



Unit: mm

Dowt No.	LIDC No		Appl	icable Cable		Dooleaging		K RoHS	Dalloo
Part No.	HRS No.	ULStyle	Jacket Diameter	Wire Size	Stranded Wire Conductor	Packaging	J		R0HS2
				18 AWG	43/0.18mm				
DF5-1822SCF	676-0001-1	1007	ϕ 1.5 to 2.2mm	20 AWG	21/0.18mm	5,000 / reel			
			,	22 AWG	17/0.16mm	-,,	2.8	3	
			φ2.1mm	18 AWG	43/0.18mm		2.0	٥	
DF5-1822SC	676-0002-4	1007	φ1.8mm	20 AWG	21/0.18mm	100 / pack			
			<i>ϕ</i> 1.6mm	22 AWG	17/0.16mm				Yes
				18 AWG	43/0.18mm				res
DF5A-1822SCF	676-0003-7	1015	ϕ 2.2 to 3.2mm	20 AWG	21/0.18mm	5,000 / reel			
		, , , , ,		22 AWG	17/0.16mm	-,			
			φ2.9mm	18 AWG	43/0.18mm		3.8	4	
DF5A-1822SC	676-0004-0	1015	φ2.6mm	20 AWG	21/0.18mm	100 / pack			
			<i>ϕ</i> 2.4mm	22 AWG	17/0.16mm	F			

Note 1: Applicable wire with tin plated solid soft conductor.

Note 2 : When using other than the recommended wire, contact your nearest Hirose representative.

Note 3: Strip length: 3.0 to 4.0mm

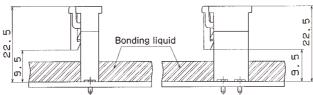
● Applicable Crimping Tools

Туре	Item	Part No.	HRS No.	Applicable Contact
	Press unit	CM-105C	901-0001-0	
Auto- matic	Applicator	AP105-DF5-1822S	901-4542-5	DF5-1822SCF
matic		AP105-DF5A-1822S	901-4546-6	DF5A-1822SCF
Manual	Manual asimaina taol	DF5-1822/CR-HT	550-0264-0	DF5-1822SC
Manual	Manual crimping tool	DF5A-1822/CR-HT	550-0265-2	DF5A-1822SC
_	Extraction tool	RP13-PC-TP	150-0021-5	DF5/DF5A-1822SCF

Note 1: If any trouble has been caused due to other tools, which are not designated by Hirose, Hirose won't guarantees any product.

Note 2: For the crimping process, refer to "crimping quality standards" and "crimping condition".

◆Application Pattern



●Precautions

Recommended soldering condition	Flow: 260°C for 10 seconds Manual soldering: 350°C for 3 seconds
2. Cleaning condition	Refer to the "Wire-to-Board Connector Guidelines : ETAD-H1023-00"
3. Connecting condition	Refer to the "Wire-to-Board Connector Guidelines: ETAD-H1023-00"
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 "Wire-to-Board Connector Guidelines : ETAD-H1023-00"

MEMO:

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