

		DESCRIPTION OF REVISIONS	BY	CHKD	DATE		COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△						△					
△						△					
APPLICABLE STANDARD											
RATING	OPERATING TEMPERATURE RANGE	- 35 °C TO 85 °C(NOTE1)				STORAGE TEMPERATURE RANGE	- 10 °C TO 60 °C				
	VOLTAGE	30 V AC				APPLICABLE CONNECTOR	DF30*-60DP-0.4V(**)				
	CURRENT	0.3 A									
SPECIFICATIONS											
ITEM		TEST METHOD				REQUIREMENTS				QT	AT
CONSTRUCTION											
GENERAL EXAMINATION		VISUALLY AND BY MEASURING INSTRUMENT.				ACCORDING TO DRAWING.				X	X
MARKING		CONFIRMED VISUALLY.								X	X
ELECTRICAL CHARACTERISTICS											
CONTACT RESISTANCE		100 mA (DC OR 1000 Hz).				100 mΩ MAX.				X	—
INSULATION RESISTANCE		100 V DC.				50 MΩ MIN.				X	—
VOLTAGE PROOF		100 V AC FOR 1 min.				NO FLASHOVER OR BREAKDOWN.				X	—
MECHANICAL CHARACTERISTICS											
MECHANICAL OPERATION		50 TIMES INSERTIONS AND EXTRACTIONS.				① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.				X	—
VIBRATION		FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 10 CYCLES OF EACH 3 AXIAL DIRECTION FOR 5 min.				① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.				X	—
SHOCK		490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.				① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.				X	—
ENVIRONMENTAL CHARACTERISTICS											
DAMP HEAT (STEADY STATE)		EXPOSED AT 40±2 °C, 90 TO 95 %, 96 h.				① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 25 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.				X	—
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -55→ 5 TO 35→85→ 5 TO 35 °C TIME 30→10 TO 15→30→10 TO 15 min UNDER 5 CYCLES.				① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.				X	—
CORROSION SALT MIST		EXPOSED IN 5% SALT WATER SPRAY FOR 48 h. (TEST STANDARD:IEC60068)				① CONTACT RESISTANCE: 100 mΩ MAX. ② NO HEAVY CORROSION.				X	—
SULPHUR DIOXIDE		EXPOSED IN 25 PPM FOR 96h. (TEST STANDARD:IEC60068)				① CONTACT RESISTANCE: 100 mΩ MAX. ② NO HEAVY CORROSION.				X	—
REMARKS NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT.						DRAWN F.MATSUKI '05.01.28	DESIGNED A.Takahashi '05.01.31	CHECKED T.Sakata '05.01.31	APPROVED T.Sakata '05.01.31	RELEASED	
Unless otherwise specified, refer to IEC60512.											
Note QT: Qualification Test AT: Assurance Test X: Applicable Test											
HRS		HIROSE ELECTRIC CO., LTD.				SPECIFICATION SHEET				PART NO. DF30FC-60DS-0.4V(81)	
CODE NO.(OLD) CL		DRAWING NO. ELC4-303169-04				CODE NO. CL684-1082-3-81				1/1	

1			2			3			4		
COUNT	DESCRIPTION OF REVISIONS		BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS		BY	CHKD	DATE
△ 4	RE-H-06664		YM	TS	04.12.17	△					. .
△						△					. .
△						△					. .

■ NOTES WHEN MATING DF30 SERIES CONNECTORS.

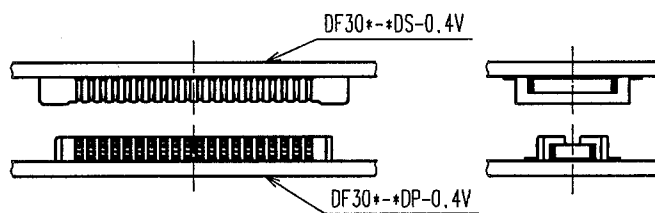


FIGURE-1

PLEASE LOCATE EACH CONNECTOR IN PARALLEL WHEN YOU PUT THEM IN MATING POSITION.

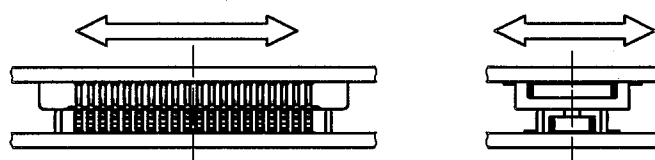


FIGURE-2

THE INSULATOR WILL BE DAMAGED AND THE CONTACTS WILL BE DEFORMED IF THE CONNECTORS ARE LOCATED INCLINED AND MATED BY EXCESSIVE FORCE.

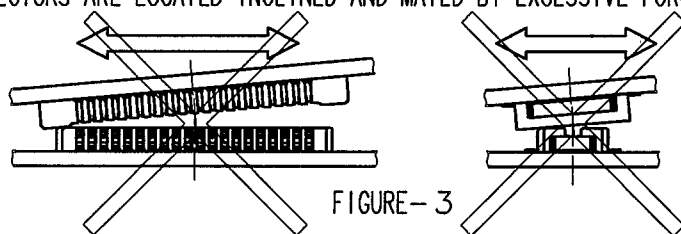


FIGURE-3

WHEN YOU LOCATE TWO CONNECTORS IN A PROPER POSITION, THEY WILL GO DOWN SLIGHTLY AT A LOWER LEVEL AND YOU WILL FIND THAT THEY GET LOCATED CORRECTLY. PLEASE MATE EACH CONNECTOR IN PARALLEL AFTER YOU CONFIRMED THAT THEY GO DOWN LOWER TO SOME EXTENT.

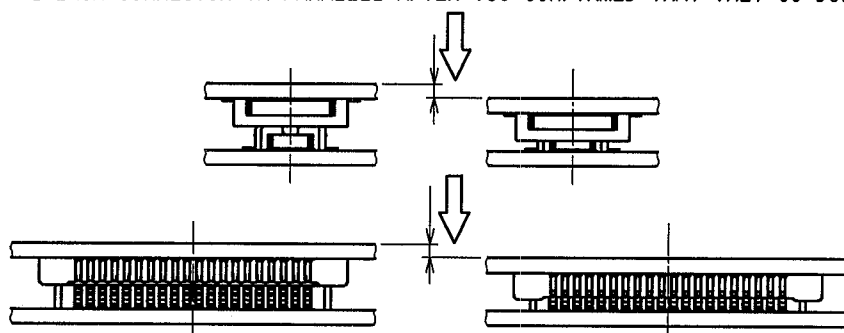


FIGURE-4

THE MATED CONDITIONS CAN BE RELEASED BY A DROP IMPACT OR THE APPLIED FORCE CAUSED BY FPC-HANDLING. FIX THE CONNECTORS BY APPLYING PRESSURE IN THE MATING DIRECTION WITH THE DEVICE OR A BUFFER MATERIAL.

CODE NO. (OLD)		DRAWN Y.MICHIDA 04.12.16	DESIGNED A.TAKAHASHI 04.12.16	CHECKED T.SAKATA 04.12.16	APPROVED T.OMA 04.12.16	RELEASED
NOTES WHEN MATING		PART NO. DF30 Series				
DRAWING NO. EDSC4-830174		CODE NO. CL684				
SCALE FREE : 1		1/3				
UNITS mm		1/3				

1		2			3		4		
COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
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△					△				. .
△					△				. .

■ NOTES WHEN EXTRACTING

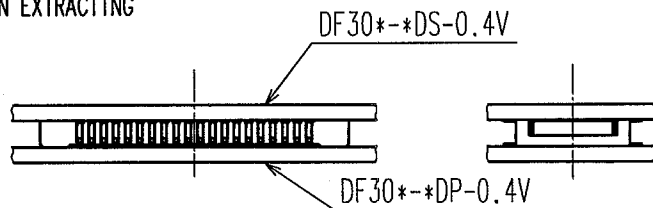


FIGURE-5

WHEN YOU EXTRACT CONNECTORS, PLEASE EXTRACT IN PARALLEL.

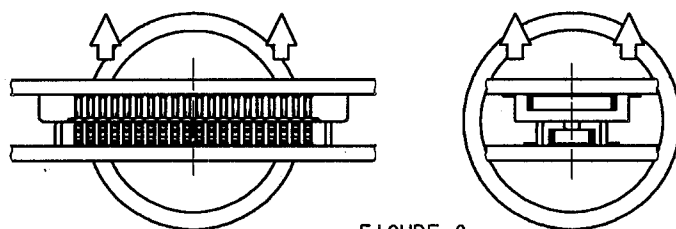


FIGURE-6

⚠ IF YOU'RE UNABLE TO EXTRACT IN PARALLEL DUE TO SET STRUCTURE OR SPACE, PLEASE EXTRACT AS FIGURE-7 (IN LONGER DIMENSION). PLEASE BE CAREFUL NOT TO DAMAGE CONTACTS AT SIDES, WHERE STRESS IS LIKELY TO GATHER WHEN CONNECTORS ARE MOUNTED ON SOFT FPC.

⚠ ESPECIALLY, PLEASE DO NOT EXTRACT FROM THE CORNER AS FIGURE-8. IT GIVES CRITICAL STRESS TO THE CONTACTS ON THE CROSS CORNER.

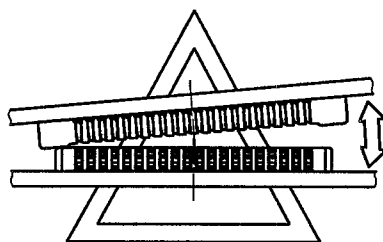


FIGURE-7

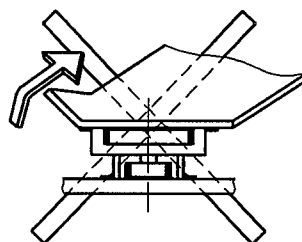


FIGURE-8

⚠ PLEASE DO NOT EXTRACT AS FIGURE-9. THE STRESS CONCENTRATES ON ONE ROW, AND MIGHT DAMAGE CONNECTORS TO MALFUNCTION.

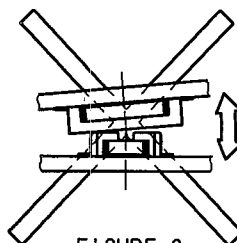


FIGURE-9

CODE NO. (OLD)		DRAWN Y. MICHIDA 04.12.16	DESIGNED A. TAKAHASHI 04.12.16	CHECKED T. SAKATA 04.12.16	APPROVED T. OMA 04.12.16	RELEASED
NOTES WHEN EXTRACTING						
DRAWING NO. EDSC4-830174		PART NO. DF30 Series				
UNITS mm		CODE NO. CL684				
SCALE FREE : 1		2/3				

1		2			3		4		
COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△					△				.
△					△				.
△					△				.

① WHEN FPC IS SOFT, STRESS IS CONCENTRATED ON THE CONTACTS AT CORNERS.
PLEASE PAY ATTENTION TO THIS POINT AND DO NOT UNMATE CONNECTORS FROM CORNERS AS FIGURE-10.
THIS GIVES SERIOUS DAMAGE ON CONTACTS, AND OCCURS SOLDER PEEL-OFF OR CONTACT COME-OFF.

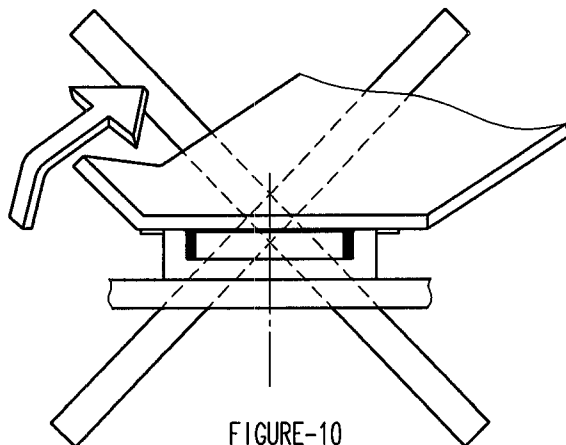


FIGURE-10

IF YOU MOUNT PLUG CONNECTOR ON FPC, CONTACTS MIGHT COME OFF FROM HOUSING MOLD.

CONTACT MIGHT COME OFF FROM HOUSING MOLD.

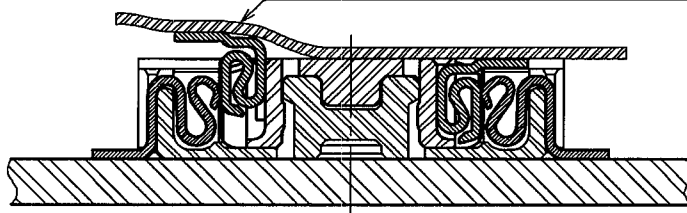


FIGURE-11

IN CASE YOU MOUNT RECEPTACLE CONNECTOR ON FPC, THERE IS NO RISK OF CONTACT COME-OFF.
HIROSE RECOMMEND THAT RECEPTACLE IS MOUNTED ON FPC.

IN ORDER TO AVOID THIS RISK, IT IS RECOMMENDED
THAT YOU MOUNT RECEPTACLE CONNECTOR ON FPC.

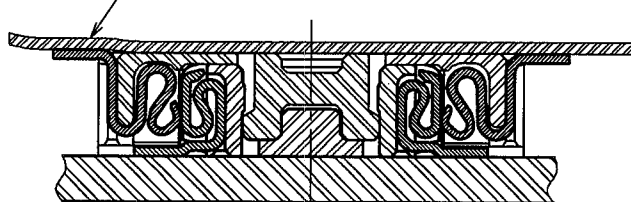


FIGURE-12

CODE NO. (OLD)		DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED
		Y.MICHIDA	A.TAKAHASHI	T.SAKATA	T.OMA	
NOTES WHEN EXTRACTING (SUPPLEMENTARY DATA)		04.12.16	04.12.16	04.12.16	04.12.16	
DRAWING NO.		PART NO.				
EDSC4-830174		DF30 Series				
UNITS		CODE NO.				
mm		CL684				
HRS		3/3				
HIROSE ELECTRIC CO.,LTD.						

Temperature (°C)

250

240

220

200

150

100

10s MAX

60s MAX

60~120s

Time (s)

NOTE 1. REFLOW SYSTEM : IR REFLOW (AIR OR N₂ GAS)
2. PERFORMING REFLOW : TWICE MAX

1	2	3	4	FORM NO. 22
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