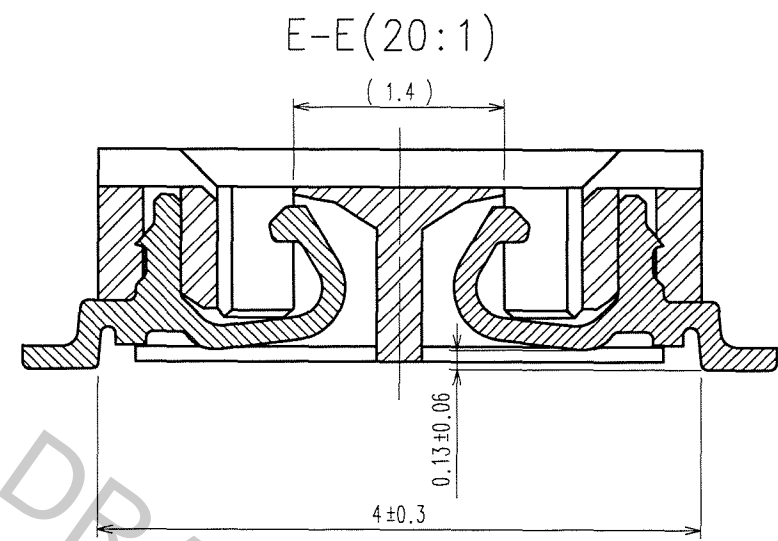
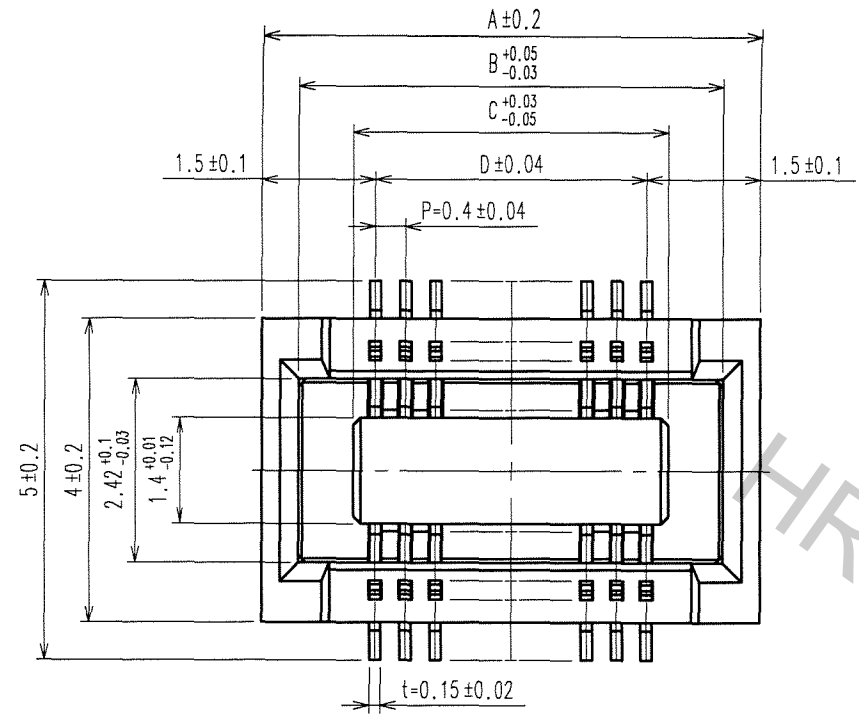
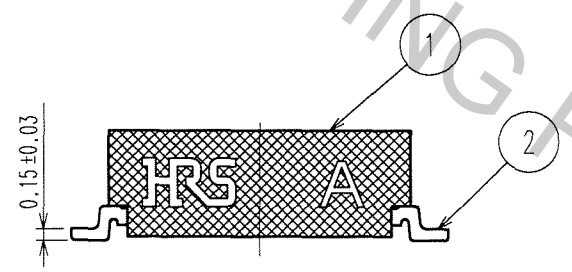
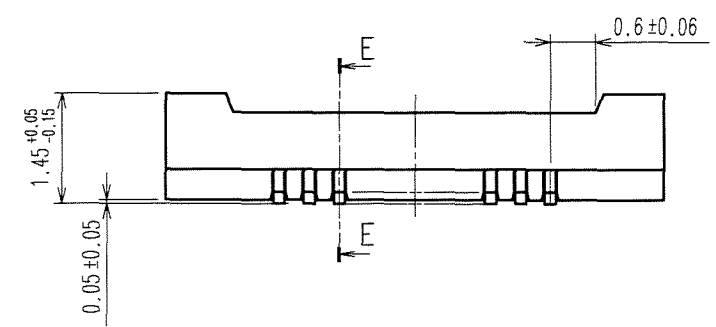


Apr.1.2017 Copyright 2017 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

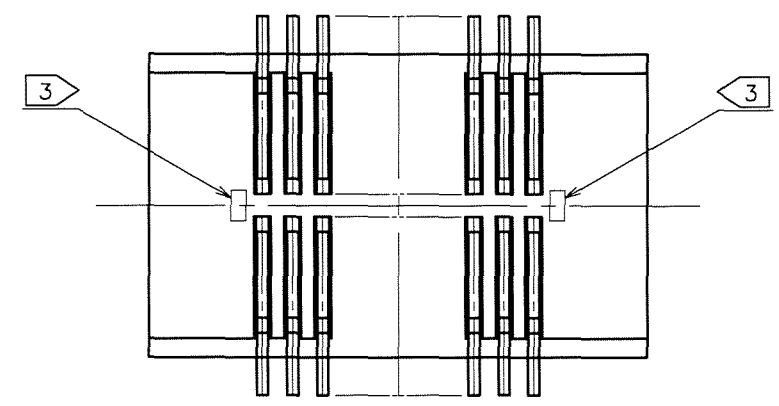
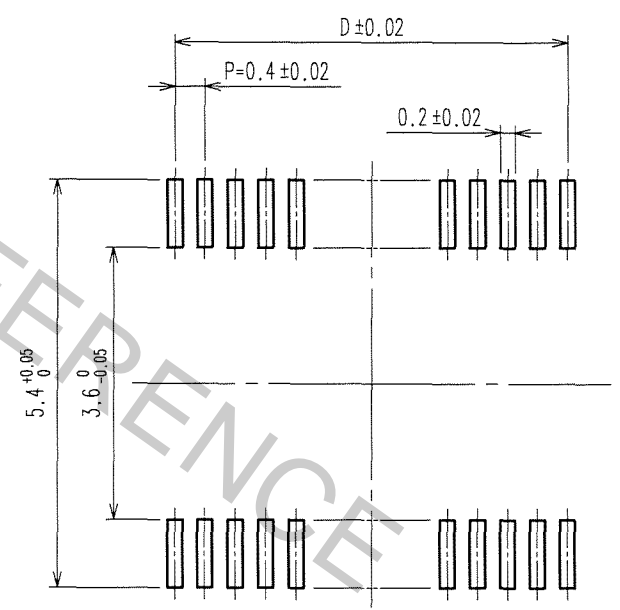
| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|-------|--------------------------|----|------|------|-------|--------------------------|----|------|------|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |



| CONTACTS | A | B | C | D |
|----------|------|-------|-------|------|
| 20 | 6.6 | 5.62 | 4.18 | 3.6 |
| 30 | 8.6 | 7.62 | 6.18 | 5.6 |
| 40 | 10.6 | 9.62 | 8.18 | 7.6 |
| 50 | 12.6 | 11.62 | 10.18 | 9.6 |
| 60 | 14.6 | 13.62 | 12.18 | 11.6 |
| 70 | 16.6 | 15.62 | 14.18 | 13.6 |
| 80 | 18.6 | 17.62 | 16.18 | 15.6 |
| 100 | 22.6 | 21.62 | 20.18 | 19.6 |
| 120 | 26.6 | 25.62 | 24.18 | 23.6 |



RECOMMENDED PATTERN



- NOTES
- LEAD CO-PLANARITY SHALL BE 0.1mm MAX.
 - IN CASE OF SOLDERING A CONTACT AREA MANUALLY, CLEANING SHALL BE REQUIRED.
 - PREVENTIVE HOLE FOR SINKAGE MAY BE SETUP AT THE INDICATED POSITION.
 - THIS PRODUCT TO BE SHIPPED BY TAPE AND REEL PACKAGE. REFER TO NEXT SHEET FOR DETAILS OF PACAGING SPECIFICATIONS.
 - USE METAL SCREEN ,THICKNESS 0.12mm. SET UP THE METAL SCREEN HOLE TO THE PATTERN IN 70%.

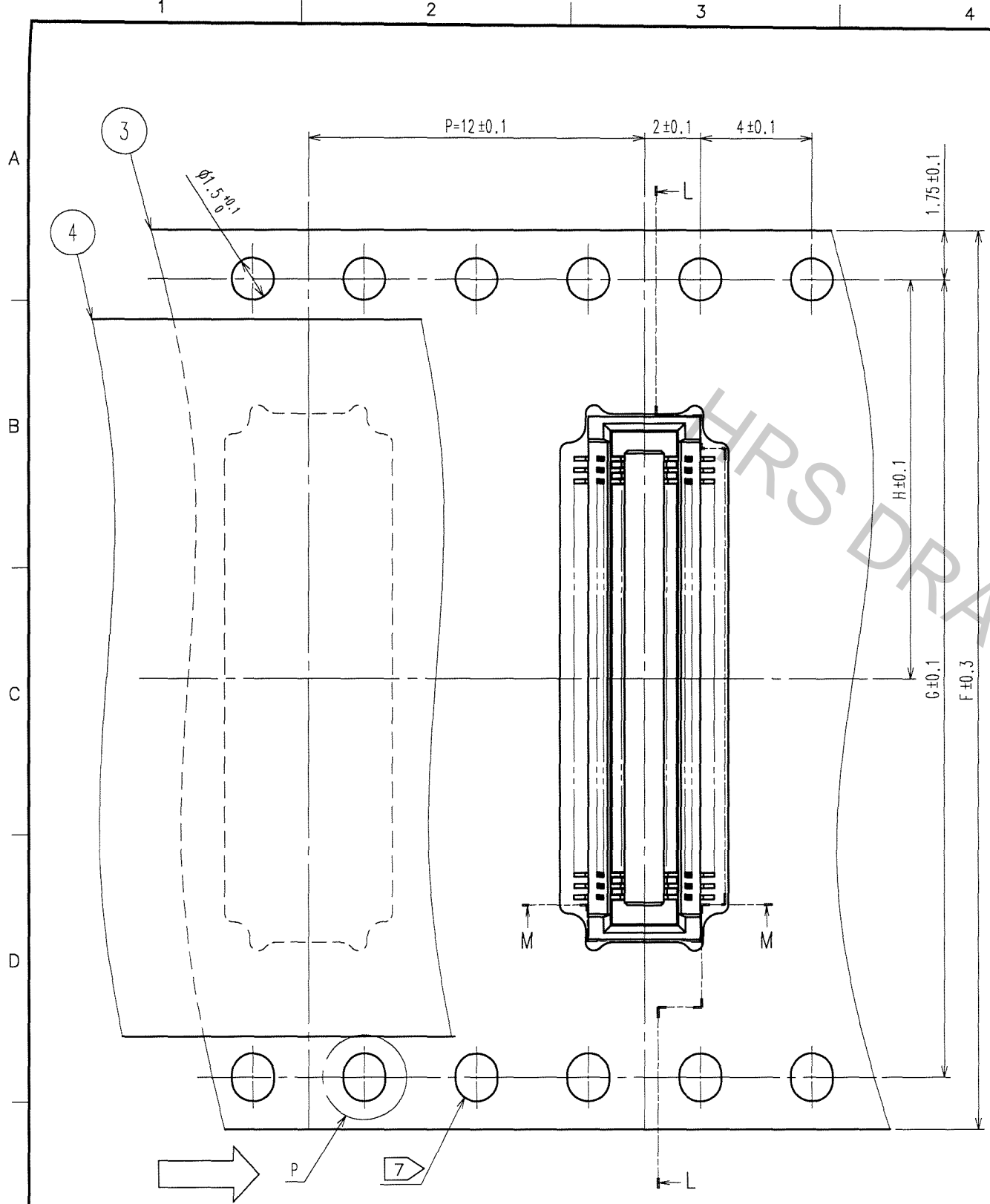
| 2 | PHOSPHOR BRONZE | CONTACT AREA:GOLD PLATED 0.05μ m min LEAD AREA:GOLD PLATED 0.05μ m min UNDER PLATING:NICKEL PLATED 1μ m min | 5 | PS | BLACK (PLASTIC REEL) |
|-----|-----------------|---|-----|-----------|------------------------------|
| 1 | LCP | NATURAL (BLACK),UL94V-0 | 4 | POLYESTER | CLEAR (COVER TAPE) |
| | | | 3 | PS | CLEAR (EMBOSSD CARRIER TAPE) |
| NO. | MATERIAL | FINISH, REMARKS | NO. | MATERIAL | FINISH, REMARKS |

| | | | | | |
|----------------|-------------------|--------------------------|--------------------|-----------------|----------|
| CODE NO. (OLD) | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | <i>J. Michida</i> | <i>J. Michida</i> | <i>T. Miyajaki</i> | <i>K. Ikeda</i> | |
| | 07.9.29 | 07.9.29 | 07.09.29 | 07.09.29 | |
| SCALE | DRAWING NO. | PART NO. | | | |
| 10 : 1 | EDC3-314220-01 | DF18C-*DS-0.4V(81) | | | |
| UNITS | HRS | HIROSE ELECTRIC CO., LTD | CODE NO. | CL684 | 1/2 |
| mm | | | | | |

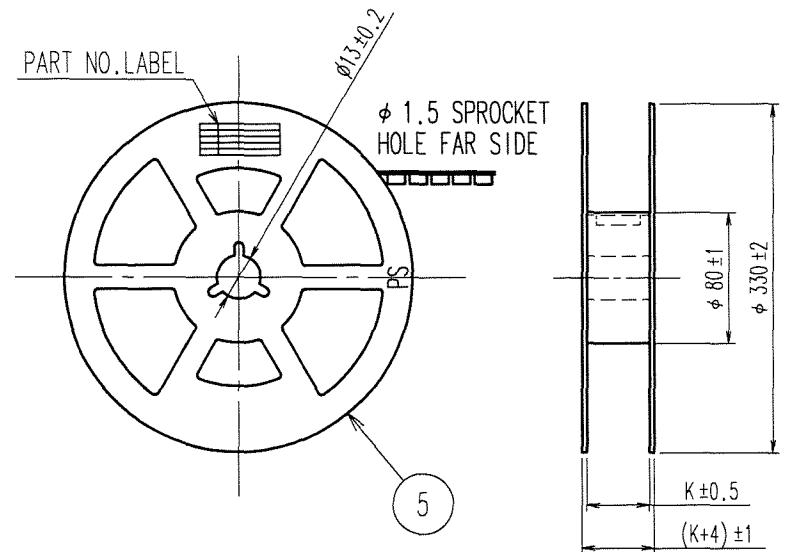
| |
|----|
| TO |
| |
| |
| |

Apr.1.2017 Copyright 2017 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|-------|--------------------------|----|------|------|-------|--------------------------|----|------|------|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |



STYLE AND DIMENSION OF REEL (FREE)

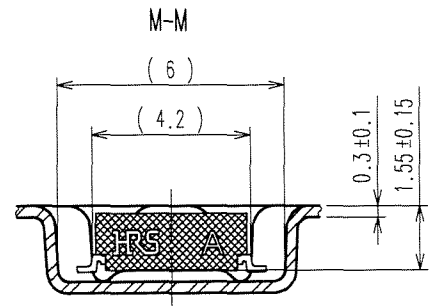
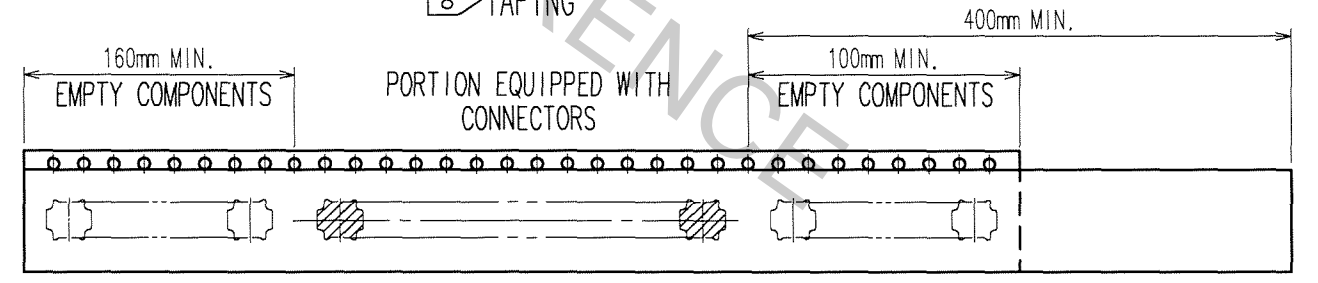


| CONTACTS | F | G | H | J | K |
|----------|----|------|------|------|------|
| 20 | 16 | - | 7.5 | 6.8 | 17.5 |
| 30 | 16 | - | 7.5 | 8.8 | 17.5 |
| 40 | 24 | - | 11.5 | 10.8 | 25.5 |
| 50 | 24 | - | 11.5 | 12.8 | 25.5 |
| 60 | 24 | - | 11.5 | 14.8 | 25.5 |
| 70 | 24 | - | 11.5 | 16.8 | 25.5 |
| 80 | 32 | 28.4 | 14.2 | 18.8 | 33.5 |
| 100 | 44 | 40.4 | 20.2 | 22.8 | 45.5 |
| 120 | 44 | 40.4 | 20.2 | 26.8 | 45.5 |

7> DETAIL OF PART No. LABEL

| | |
|----------------------|--------------------------|
| DATE OF MANUFACTURED | ** ** * |
| CL No. | 684-*****-81 |
| PART No. | DF18C-*DS-0.4V(81) |
| QUANTITY | 2000 KO |
| SUPPLIER | HIROSE ELECTRIC CO.,LTD. |

8> TAPING



NOTES 6. 1 REEL: 2000 CONNECTORS.
 7> DETAIL OF PART No. LABEL IS WRITTEN IN JAPANESE.
 8> REFER TO JIS C 0806.
 (PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING)

| | | | | | |
|-------------------------------|--------------------------------|-------------------|--------------------|-----------------|----------|
| CODE NO. (OLD) | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | <i>J. Michida</i> | <i>J. Michida</i> | <i>T. Miyazaki</i> | <i>K. Ikeda</i> | |
| | 07.9.29 | 07.9.29 | 07.09.29 | 07.09.29 | |
| DRAWING NO. EDC3-314220-01 | PART NO. DF18C-*DS-0.4V(81) | | CODE NO. CL684 | | |
| SCALE FREE | HRS HIROSE ELECTRIC CO., LTD | | 2/2 | | |

| |
|----|
| TO |
| |
| |
| |

NCB

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

A

■ NOTES WHEN MATING

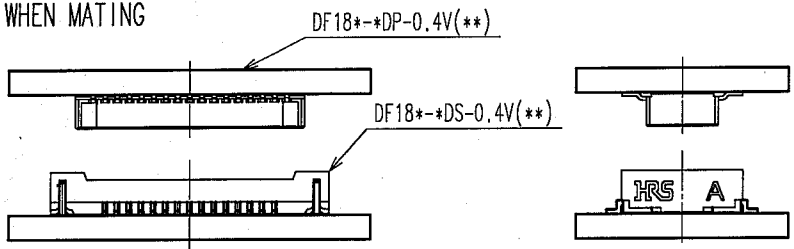


FIGURE-1

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

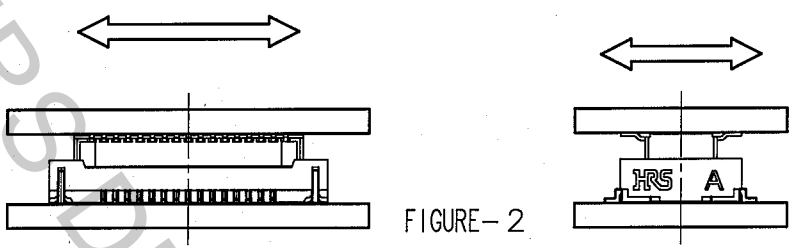


FIGURE-2

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

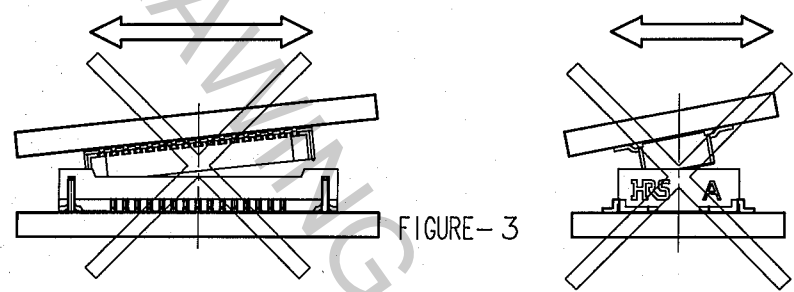


FIGURE-3

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.

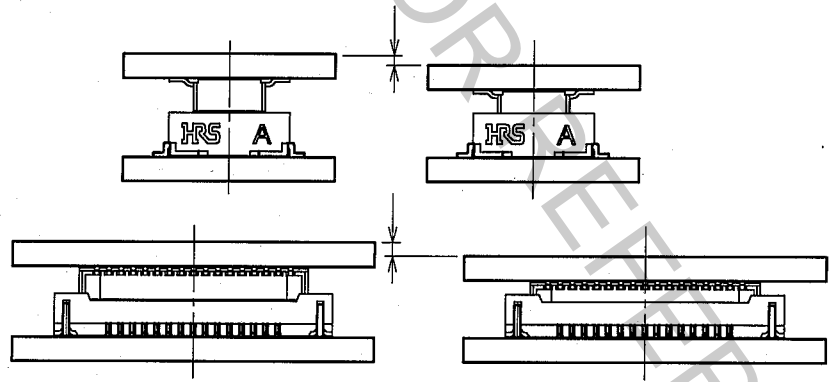


FIGURE-4

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 | DESIGNED | CHECKED | APPROVED | RELEASED |
| | | <i>J. Michioka</i> | <i>J. Michioka</i> | <i>K. Akada</i> | <i>M. Kobayashi</i> | |
| | | 06.11.15 | 06.11.15 | 06.11.15 | 06.11.15 | |
| TO | NOTES WHEN MATING | DRAWING NO. EDC4-312210-18 | | PART NO. DF18 SERIES | | |
| F | SCALE FREE : 1 | HRS | | CODE NO. CL684 | | 1/2 |
| | UNITS mm | HIROSE ELECTRIC CO., LTD. | | | | |



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

■ Notes when extracting

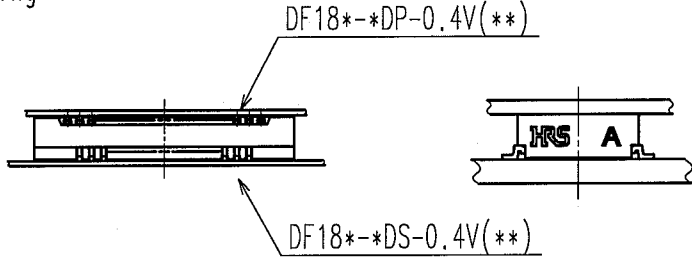


Figure-1

When you extract connectors, please extract in parallel.

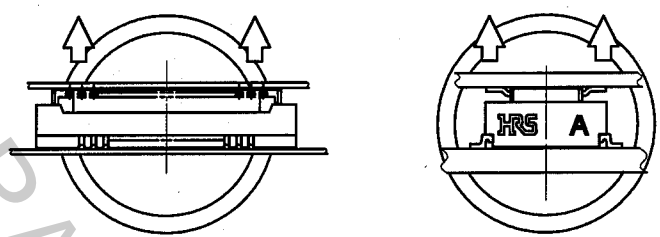


Figure-2

If you're unable to extract in parallel due to set structure or space, please extract as Figure-3 (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.

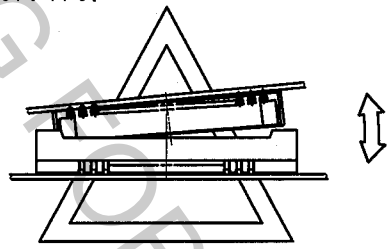


Figure-3

Please do not extract as Figure-4.
The stress concentrates on one row, and might damage connectors to malfunction.

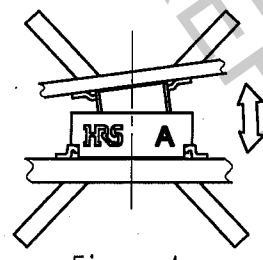


Figure-4

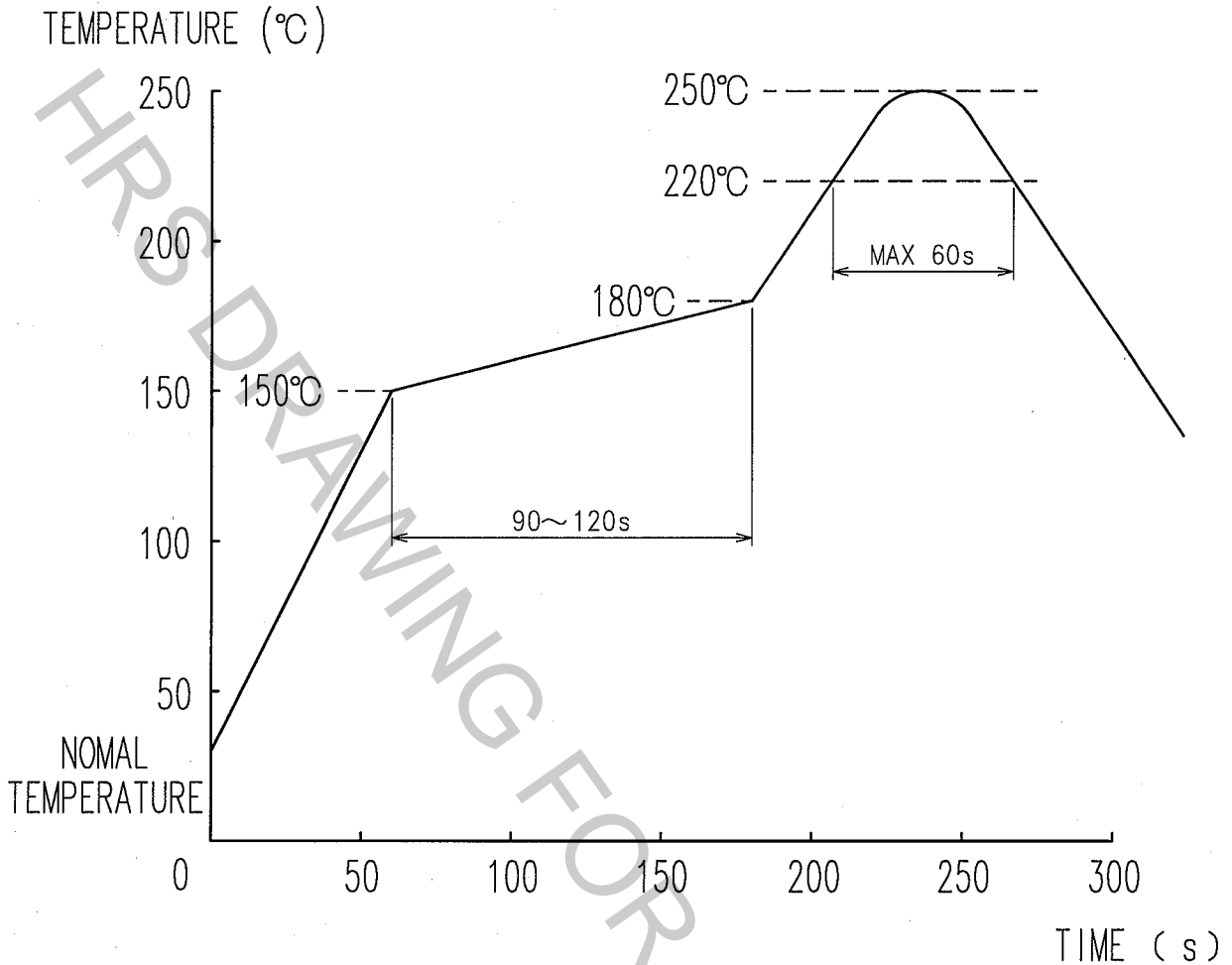
| |
|----|
| TO |
| |
| |
| |

| | | | | | |
|--|--|---|---|---|-----------------|
| <p>SCALE FREE: 1</p> <p>UNITS mm</p> | <p>DRAWING NO.</p> <p>EDC4-312210-18</p> | <p>PART NO.</p> <p>DF18 SERIES</p> | <p>CODE NO.</p> <p>CL684</p> | <p>2/2</p> | |
| | <p>DRAWN</p> <p><i>J. Michioka</i></p> <p>06.11.15</p> | <p>DESIGNED</p> <p><i>J. Michioka</i></p> <p>06.11.15</p> | <p>CHECKED</p> <p><i>H. Akeda</i></p> <p>06.11.15</p> | <p>APPROVED</p> <p><i>M. Nakamura</i></p> <p>06.11.15</p> | <p>RELEASED</p> |
| | <p>NOTES WHEN EXTRACTING</p> | | <p>FORM NO. 228</p> | | |



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

RECOMMENDED REFLOW PROFILE FOR LEAD FREE SOLDERING



- NOTE
1. MAX 250°C
 2. SOLDERING AREA : 220°C OR MORE MAX 60 s
 3. PREHEATING AREA : 150~180°C 90~120 s
 4. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.

| | | | | | | |
|----------------|--|-------------------|-------------------|--------------------|-----------------|----------|
| CODE NO. (OLD) | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | | <i>J. Michida</i> | <i>J. Michida</i> | <i>T. Miyazaki</i> | <i>K. Ikeda</i> | |
| | | 06.10.12 | 06.10.12 | 06.10.13 | 06.10.13 | |
| DRAWING NO. | | PART NO. | | | | |
| EDC4-163817-18 | | DF18 SERIES | | | | |
| UNITS | | CODE NO. | | | | |
| mm | | CL684 | | | | |

| |
|----|
| TO |
| |
| |
| |