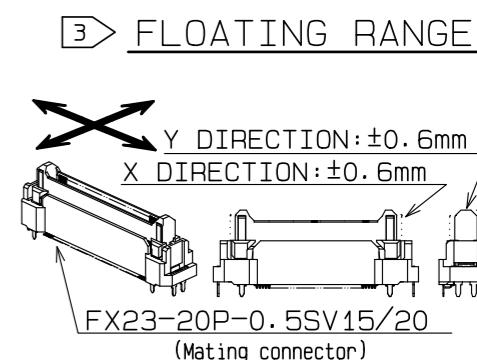
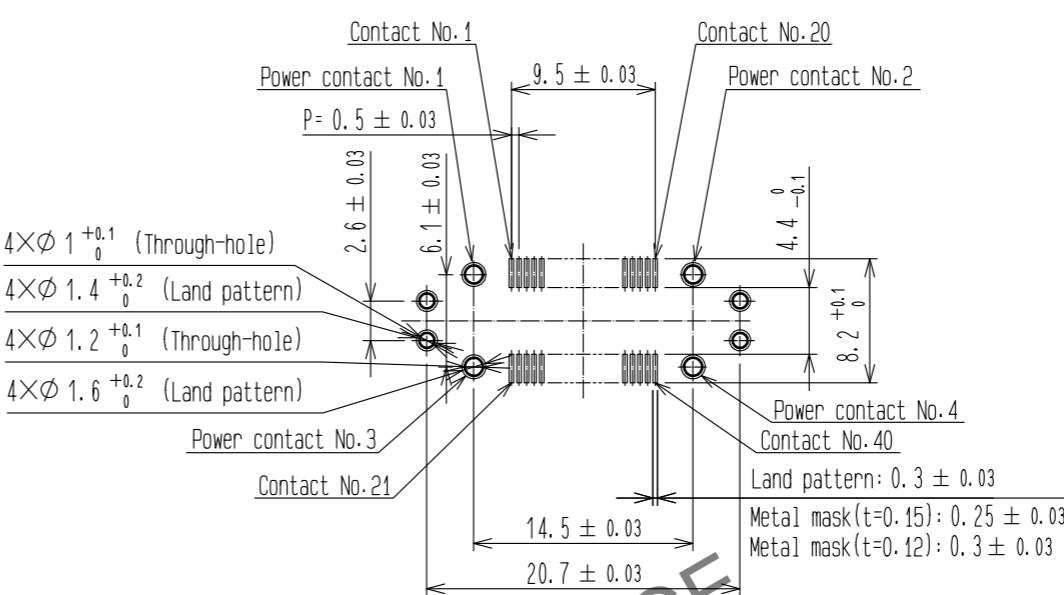
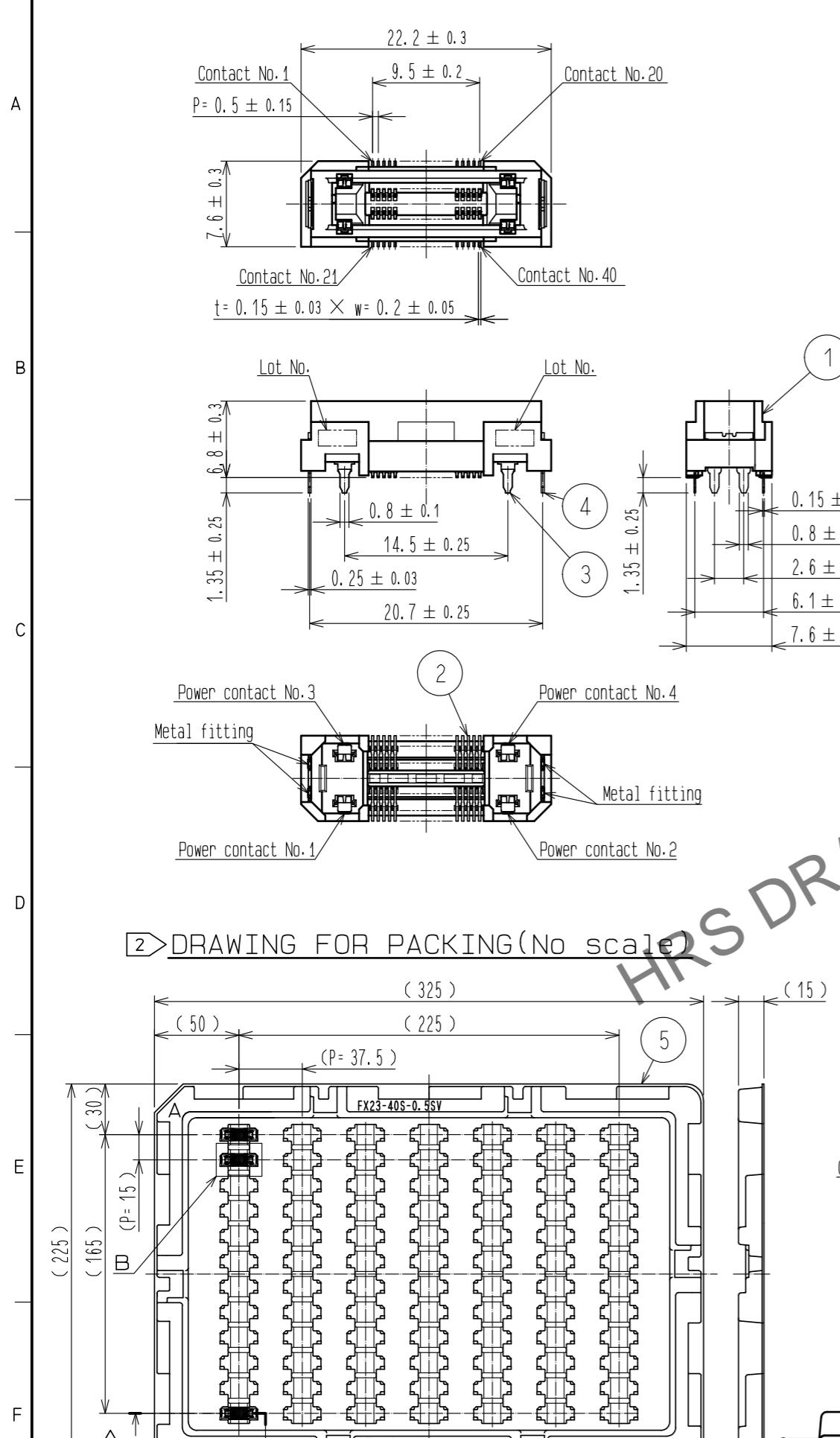
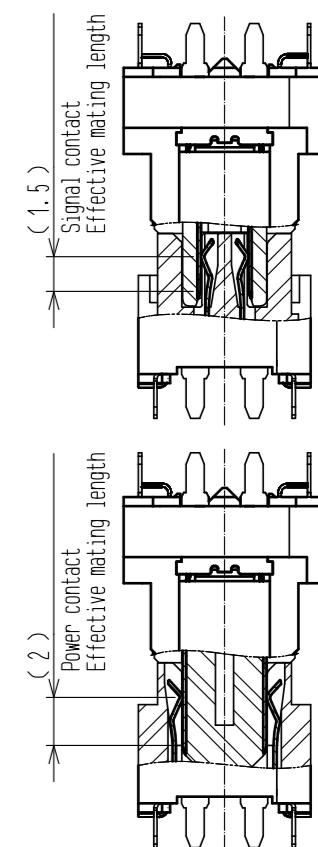


## RECOMMENDED LAND PATTERN DIMENSION OF PCB

(PCB THICKNESS :  $t = 1.6\text{mm}$ )



## CROSS SECTION OF MATING (No scale)



1 Lead CO-Planarity is 0.1mm MAX

2 This is packaged in tray. (84pcs/tray)

3 Floating range of this connector is  $\pm 0.6\text{mm}$  MAX.

4 It shows the vacuum pickup area. Remove the mylar tape before mating connectors.  
5 Blotches and hit mark can be cleaned through out the manufacturing process which doesn't affect quality level.

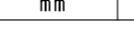
5 Blemish and hit mark can be occurred through out  
6 The dimensions in parentheses are for reference

7 Please use the connectors within the specified

Please use the connectors within the spec.

CONTACT AREA

2 COPPER ALLOY

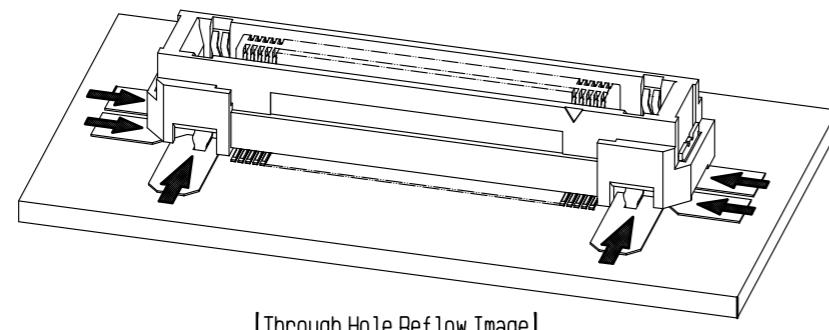
|  |              |  |       |                          |                |  |  |  |  |  |  |
|--|--------------|--|-------|--------------------------|----------------|--|--|--|--|--|--|
| 2  | COPPER ALLOY | CONTACT AREA:GOLD 0.1 $\mu\text{m}$    |       | 4                        | BRASS          | LEAD AREA:GOLD 0.03 $\mu\text{m}$      |  | UNDER PLATING:NICKEL 1 $\mu\text{m}$   |  |  |  |
|  |              | CONTACT AREA:GOLD 0.1 $\mu\text{m}$    |       |                          |                | LEAD AREA:GOLD 0.03 $\mu\text{m}$      |  | CONTACT AREA:GOLD 0.1 $\mu\text{m}$    |  |  |  |
|  |              | UNDER PLATING:NICKEL 1.3 $\mu\text{m}$ |       |                          |                | LEAD AREA:TIN-PLATING 1 $\mu\text{m}$  |  | UNDER PLATING:NICKEL 1.3 $\mu\text{m}$ |  |  |  |
| 1  | LCP          | BLACK UL94V-0                          |       | 3                        | COPPER ALLOY   | UNDER PLATING:NICKEL 1.3 $\mu\text{m}$ |  | UNDER PLATING:NICKEL 1.3 $\mu\text{m}$ |  |  |  |
| NO.  |              | MATERIAL                               |       |                          |                | FINISH . REMARKS                       |  | NO.                                    |  |  |  |
| UNITS<br>mm  |              | SCALE<br>2 : 1                         | COUNT | DESCRIPTION OF REVISIONS |                | DESIGNED                               |  | CHECKED                                |  |  |  |
|  |              |  | 3     | DIS-F-00006109           |                | AK. IWAHORI                            |  | HT. YAMAGUCHI                          |  |  |  |
|  <b>HIROSE</b><br><b>ELECTRIC</b><br><b>CO., LTD.</b> |              | APPROVED : HS. OKAWA                   |       | 20150209                 | DRAWING<br>NO. | EDC-353552-00-00                       |  |  |  |  |  |
|  |              | CHECKED : KN. SHIBUYA                  |       | 20150209                 | PART<br>NO.    | FX23-40S-0.5SV                         |  |  |  |  |  |
|  |              | DESIGNED : TS. OONO                    |       | 20150206                 | CODE<br>NO.    | CL573-3202-2-00                        |  |  |  |  |  |
|  |              | DRAWN : TS. OONO                       |       | 20150206                 |                |  |  |  |  |  |  |

**HRS** HIROS  
ELECT  
CO., L

In order to prevent any potential failures with the connector, please read the following below:

### Through Hole Reflow Process

FX23 and FX23L Series use through hole reflow process, where power contacts/metal fittings draw solder paste from the surrounding area. In regards to the soldering paste print area, the surface shall be flat with no exposed copper surface. If the surface is not flat, power contacts/metal fittings may not properly draw the soldering paste, resulting insufficient solder on the power contacts/metal fittings as well as ball-shaped solder on the PCB.



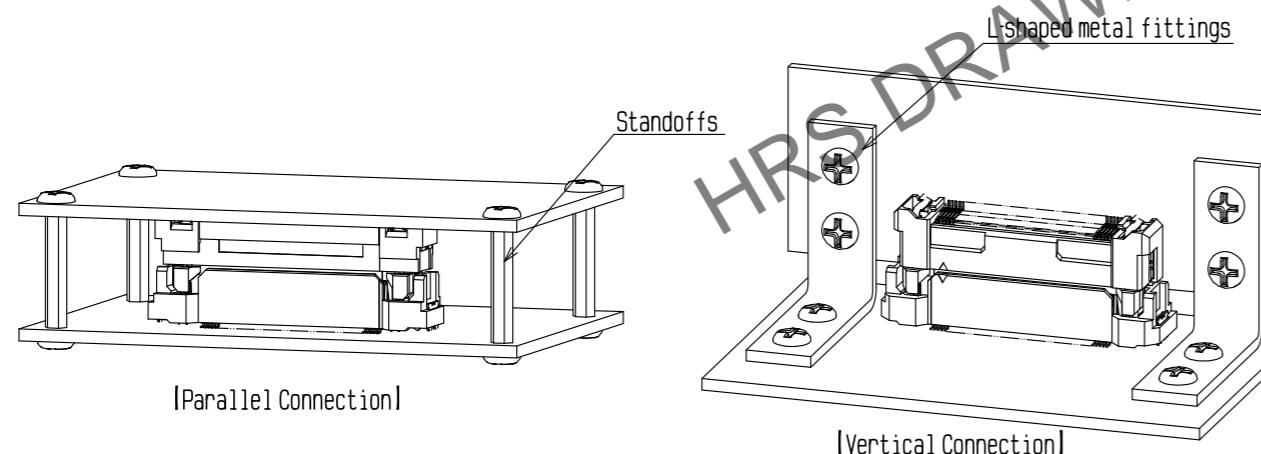
Through Hole Reflow Image

When applying solder from the opposite side of the PCB, due to the unavailability in solder space on the mounting side, there may be a case where solder is insufficiently applied to power contacts/metal fittings. Please check if the power contacts/metal fittings are properly soldered when doing so.

### Board Stabilization

This connector can absorb misalignment of boards but cannot absorb vibration itself. When boards are supported by a connector only, the connector will be loaded excessively, which may result in a damage or contact failure.

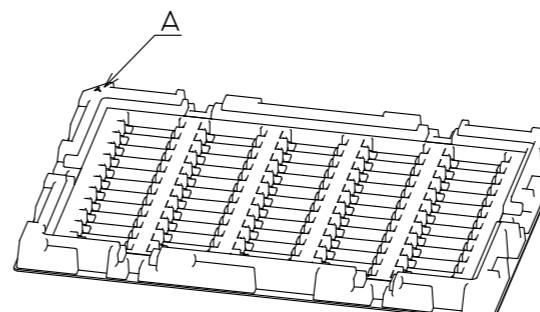
Take measures to secure boards with an object other than connector as shown in the following figure.



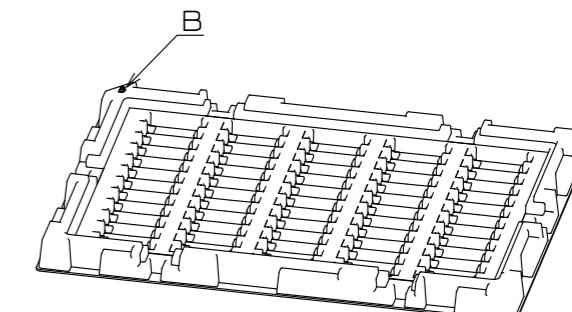
Note that when a spacer is installed far from connectors, incomplete mating of the connectors may occur due to sagging of the board, etc. Mate connectors surely and then fix a spacer.

### When Storing with Tray Packaging

Please be cautious when stacking trays when storing. There are two types of trays (tray A, tray B), and designed to stack alternately.

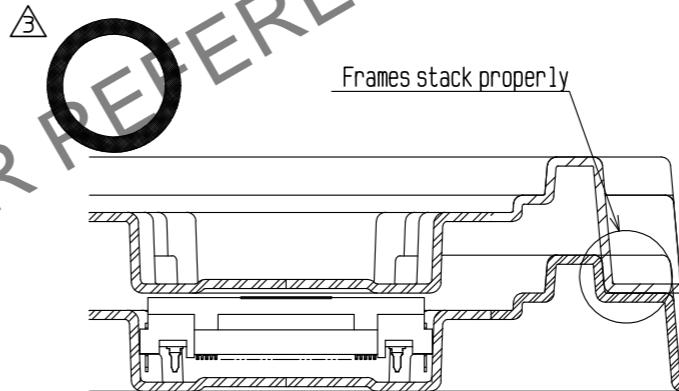


Tray A

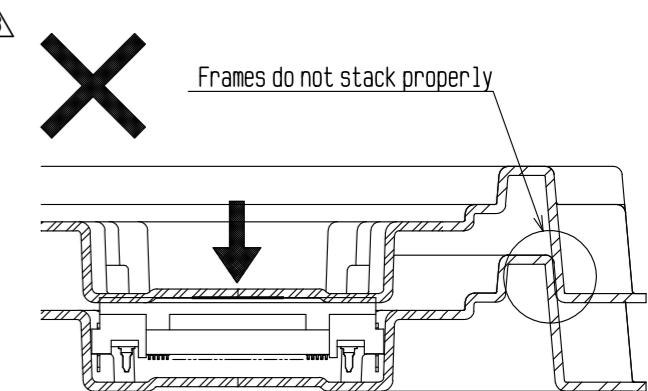


Tray B

If tray A is stacked to another tray A or tray B is stacked to another tray B, load may be applied to the connector, causing the deformation or breakage of the connector.



Frames stack properly



Frames do not stack properly

If the tray is stacked correctly, tray's frame prevents from upper tray applying force to the connector on bottom tray.

When storing, please stack the trays alternatively (tray A, tray B, tray A, tray B, tray A...)

### In Regards to Design Guideline

To provide more information in regards to the usage of this product, we have prepared a detailed manual (ETAD-F0887-00). Please contact our sales representative if needed.

|             |                  |
|-------------|------------------|
| DRAWING NO. | EDC-353552-00-00 |
| PART NO.    | FX23-40S-0.5SV   |
| CODE NO.    | CL573-3202-2-00  |