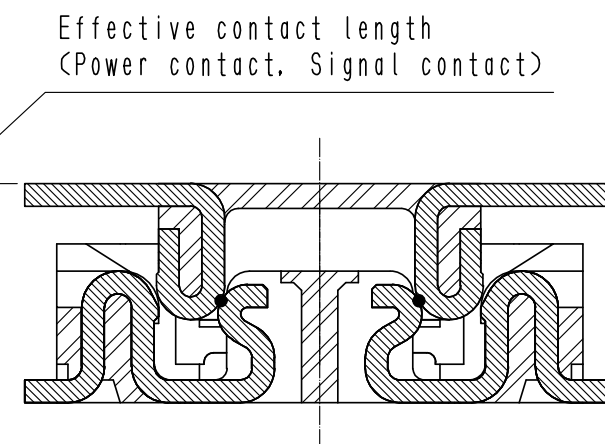
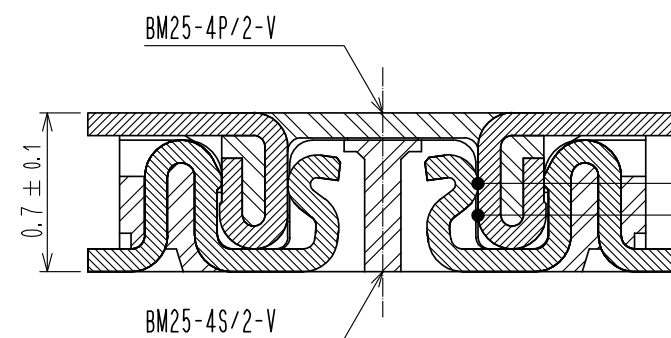
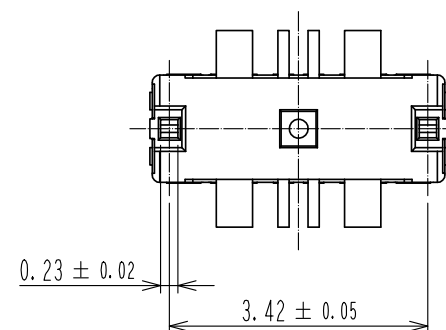
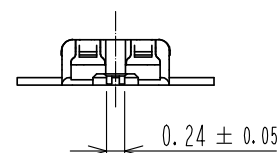
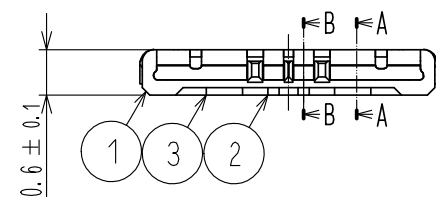
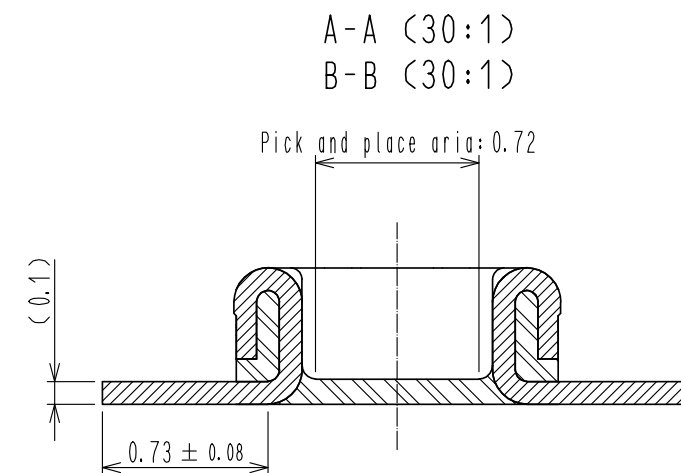
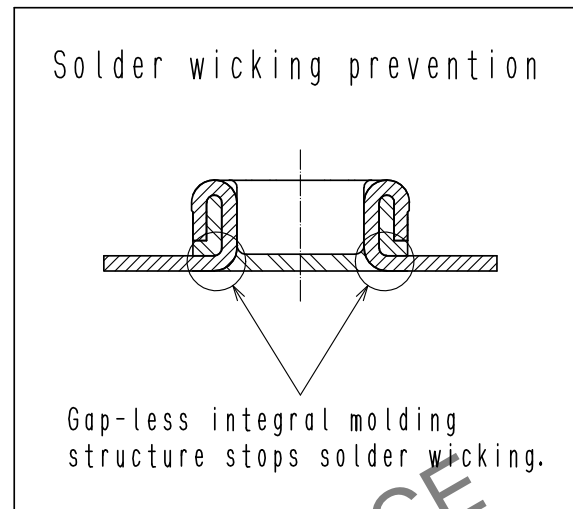
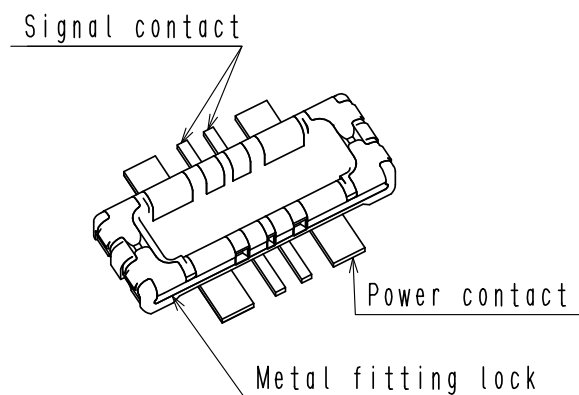
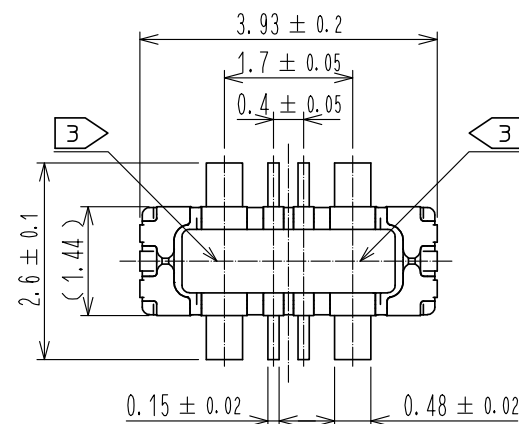


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- NOTE 1 . All lead co-planarity shall be 0.08mm MAX.  
2 . Contact plating specifications  
Contact area : Gold 0.05μm MIN  
SMT lead : Gold 0.05μm MIN  
Under plating : Nickel 1μm MIN  
(Surface : Sealing)  
3 . HRS mark and CAV No. are indicated in approx. position shown.

|             |          |                  |            |                                 |                              |
|-------------|----------|------------------|------------|---------------------------------|------------------------------|
|             |          |                  | 7          | PS                              | CLEAR. REINFORCEMENT COLLAR  |
|             |          |                  | 6          | PS                              | BLACK. PLASTIC REEL          |
|             |          |                  | 5          | POLYESTER                       | CLEAR. COVER TAPE            |
|             |          |                  | 4          | PS                              | CLEAR. EMBOSSED CARRIER TAPE |
| NO.         | MATERIAL | FINISH . REMARKS | NO.        | MATERIAL                        | FINISH . REMARKS             |
| UNITS<br>mm |          | SCALE<br>10 : 1  | COUNT<br>3 | DESCRIPTION OF REVISIONS        |                              |
|             |          |                  |            | DESIGNED<br>TR. YUNOKI          | CHECKED<br>TS. MIYAZAKI      |
|             |          |                  |            | DATE<br>15.12.22                |                              |
|             |          |                  |            | DRAWING NO.<br>EDC-358234-53-01 |                              |
|             |          |                  |            | PART NO.<br>BM25-4P/2-V(53)     |                              |
|             |          |                  |            | CODE NO.<br>CL677-1201-2-53     |                              |
|             |          |                  |            | 1/4                             |                              |

**HRS**

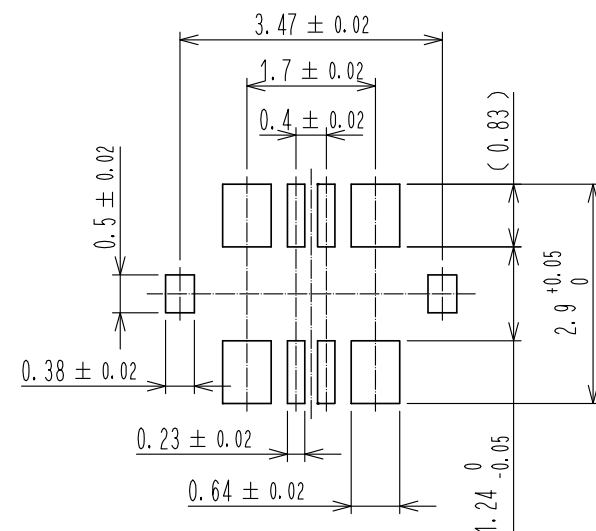
HIROSE  
ELECTRIC  
CO., LTD.

APPROVED : MO. ISHIDA  
CHECKED : YH. MICHIDA  
DESIGNED : TR. YUNOKI  
DRAWN : KR. AJITO

15.03.26  
15.03.26  
15.03.26  
15.03.26

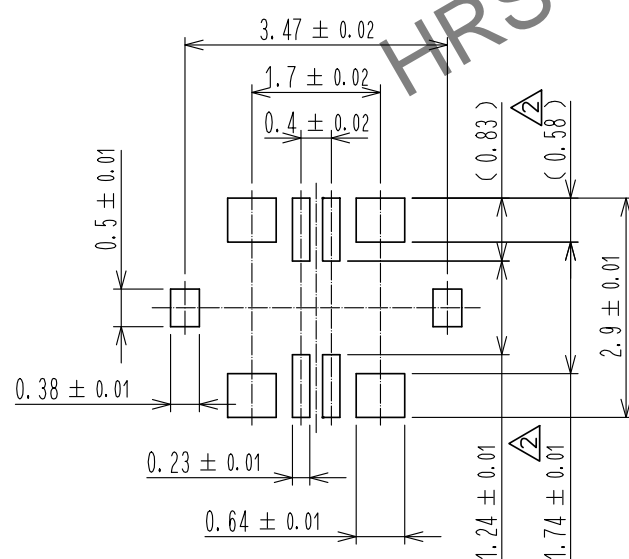
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### ◆ Recommended PCB layout

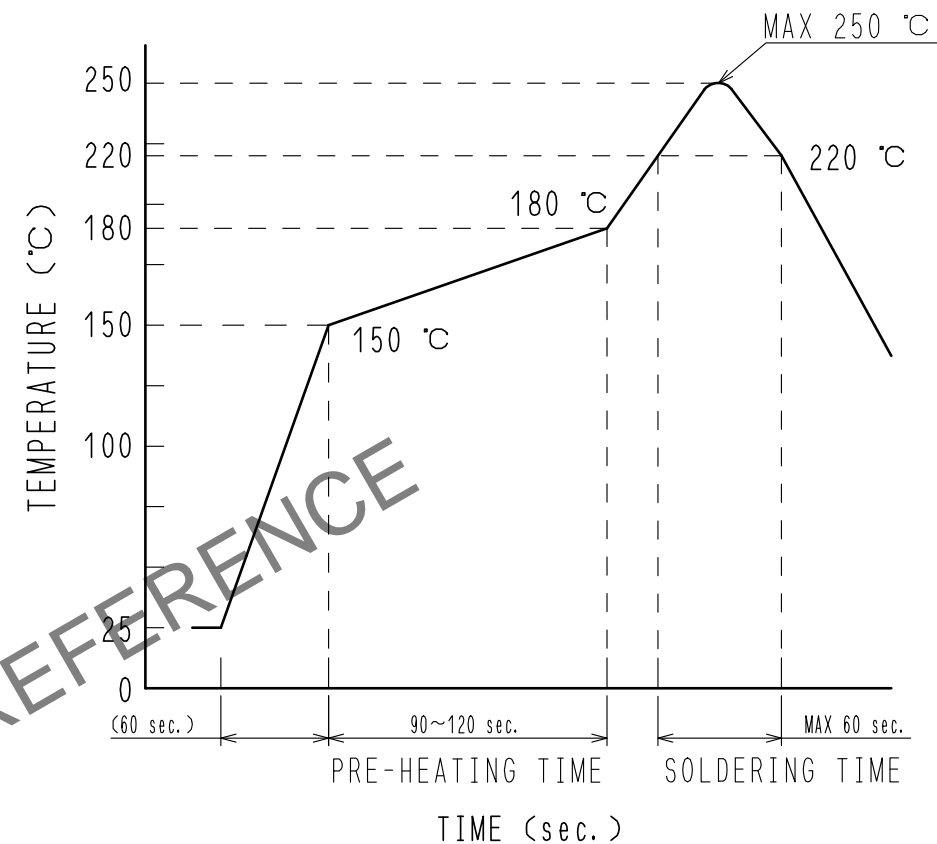


### ◆ Recommended metal mask dimensions

Metal mask thickness :  $100 \mu\text{m}$



### 4 Recommended reflow temperature profile using lead-free solder paste.



Reflow method: IR reflow  
Number of reflow cycles: 2 cycles MAX.  
1) Reflow time  
Duration above  $220^\circ\text{C}$ : 60 sec MAX.  
(Peak temperature:  $250^\circ\text{C}$  MAX)  
2) Pre-heat time  
Pre-heat temperature (MIN):  $150^\circ\text{C}$   
Pre-heat temperature (MAX):  $180^\circ\text{C}$   
Pre-heat time: 90~120 sec.

- 4 The temperatures mentioned above refer to the PCB surface temperature near the connector leads. The temperature profiles are based on the above conditions. In individual applications the actual temperature may vary, depending on solder paste type, volume/thickness and board size/thickness. Consult your solder paste and equipment manufacturer for specific recommendations.
- 5 Please contact us in case you will make different settings from our recommendation.

**HRS**

|             |                  |
|-------------|------------------|
| DRAWING NO. | EDC-358234-53-01 |
| PART NO.    | BM25-4P/2-V(53)  |
| CODE NO.    | CL677-1201-2-53  |

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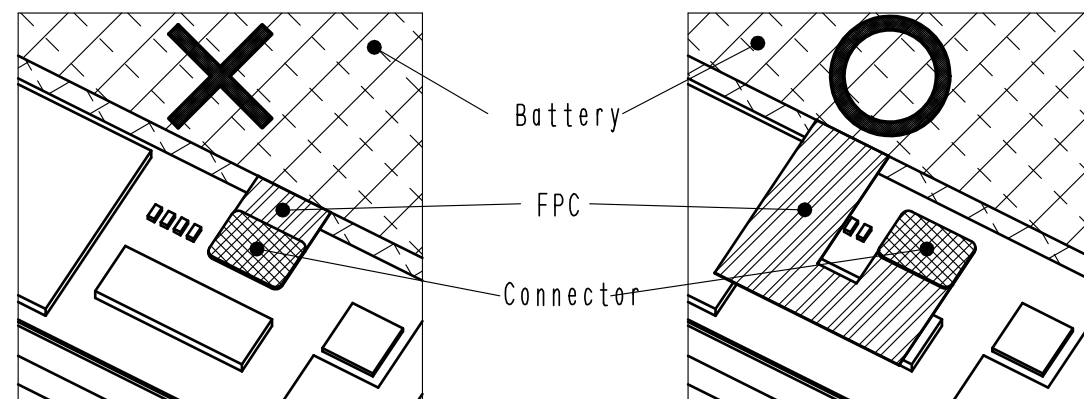


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## How to draw the FPC

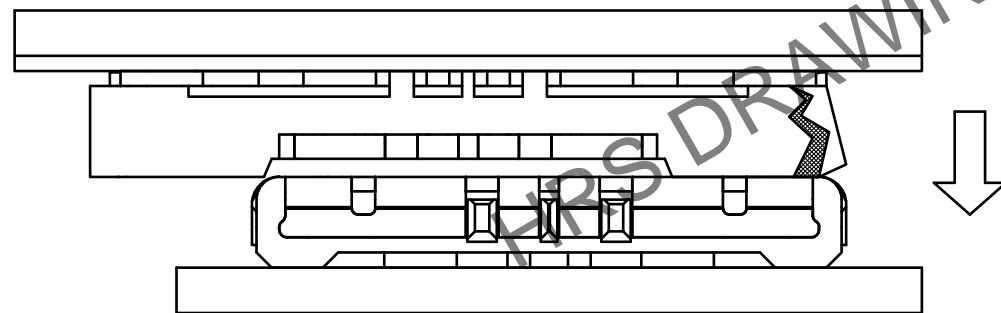
BM25 series connector is intended to carry 10A electrical current for battery application. FPC may have less flexibility than usual, since the copper foil becomes wider and thicker to carry current of 10A.

Please design the FPC to have a flexibility to absorb the displacement\* of the connector caused by fixing PCB and battery.

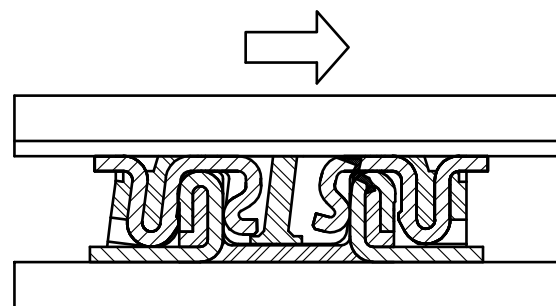


\*Possible problems caused by connector mating in incorrect positioning.  
Mating the connector in incorrect positioning could lose the function of the connector.

① Insulator could be broken.



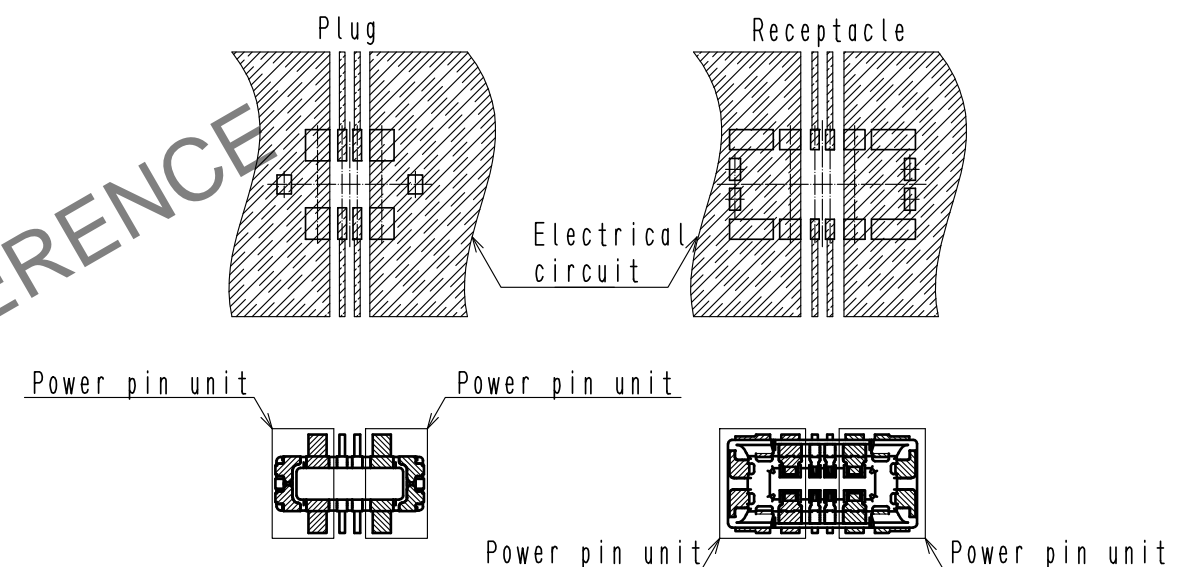
② It could apply excessive mechanical stress to single side of the contact.



## How to draw the electrical circuit

As shown in the figure below, each power supply unit including the lock metal fitting has to be mounted on the same PCB circuit.

### Recommended electrical circuit layout



**HRS**

|             |                  |
|-------------|------------------|
| DRAWING NO. | EDC-358234-53-01 |
| PART NO.    | BM25-4P/2-V(53)  |
| CODE NO.    | CL677-1201-2-53  |

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