

**NEW**



Compact Type Low-profiled Waterproof Connector

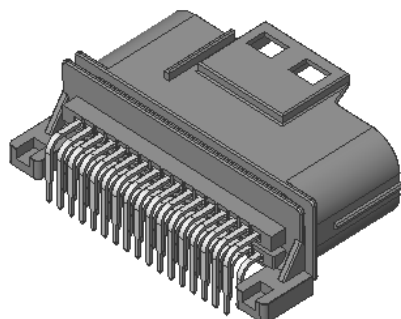
CONNECTOR

MB-0094-2

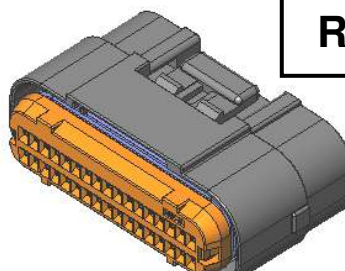
## MX23A Series

June 2006

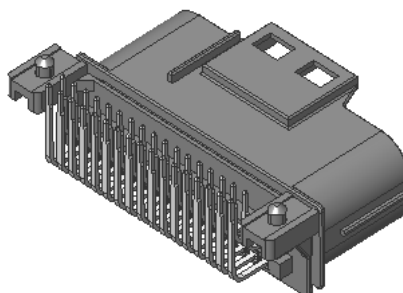
**RoHS Compliant**



**Pin Connector**  
**(Standard Type)**



**Socket Connector**



**Pin Connector**  
**(Reverse Type)**

MX23A connector can be used for wide range water proof equipment including automobiles, motorcycles and so on. This connector has high environmental capability with waterproof structure by sealing in its mating area and by grommet in its wire crimping area for full protection against water. Reverse type pin connector (with pins facing up) is also available in consideration of mounting space.

**Features**

- Low profiled type with board mounting height of 18.3mm and socket connector height of 22.2mm max.
- Double fin structure with high reliability is adopted for socket contact and large chamfer is prepared in the front-edge side to prevent grommet from damaging.
- Incomplete insertion of socket contact into its housing can be detected with the front cap mounting process.
- Full water proof grommet is used for socket contact crimping area in order to reduce size.
- Water protection seal ring is used in connector's mating area. It realizes full protection from hands touching on insulator wall.
- Reverse type pin connector (with pins facing up) is also available.

**General Specifications**

- No. of Contacts: 12, 18, 26, 34 pos.  
(Pin side 2types: Reverse and Standard  
\*\*excluding 12 pos.)
- Contact Resistance: 10m ohm max.
- Dielectric Withstanding Voltage:  
AC 1000 Vr.m.s (1 minute)
- Operating Temperature: -40 to +125 Deg. C  
(Including temperature rise caused by power distribution)
- Current Rating: 3A

- Insulation Resistance: 100M ohm min.
- Life Time: 50 times
- Applicable Wire: Position of wire is specified.

|                 |                            |
|-----------------|----------------------------|
| Cable Type      | AVSS, AVS (partially)      |
| Conductive Area | 0.3 to 1.25mm <sup>2</sup> |
| A.W.G No.       | #22 to #16                 |
| Sheath Diameter | 1.6 Dia. to 2.2 Dia. mm    |

Materials and Finishes

■ Socket Connector

| Component      | Material / Finish |
|----------------|-------------------|
| Socket Housing | Glass filled PBT  |
| Front Cap      | Glass filled PBT  |
| Rear Cover     | Glass filled PBT  |
| Grommet        | Silicone rubber   |
| Seal Ring      | Silicone rubber   |
| Dummy Pin      | Glass filled PBT  |

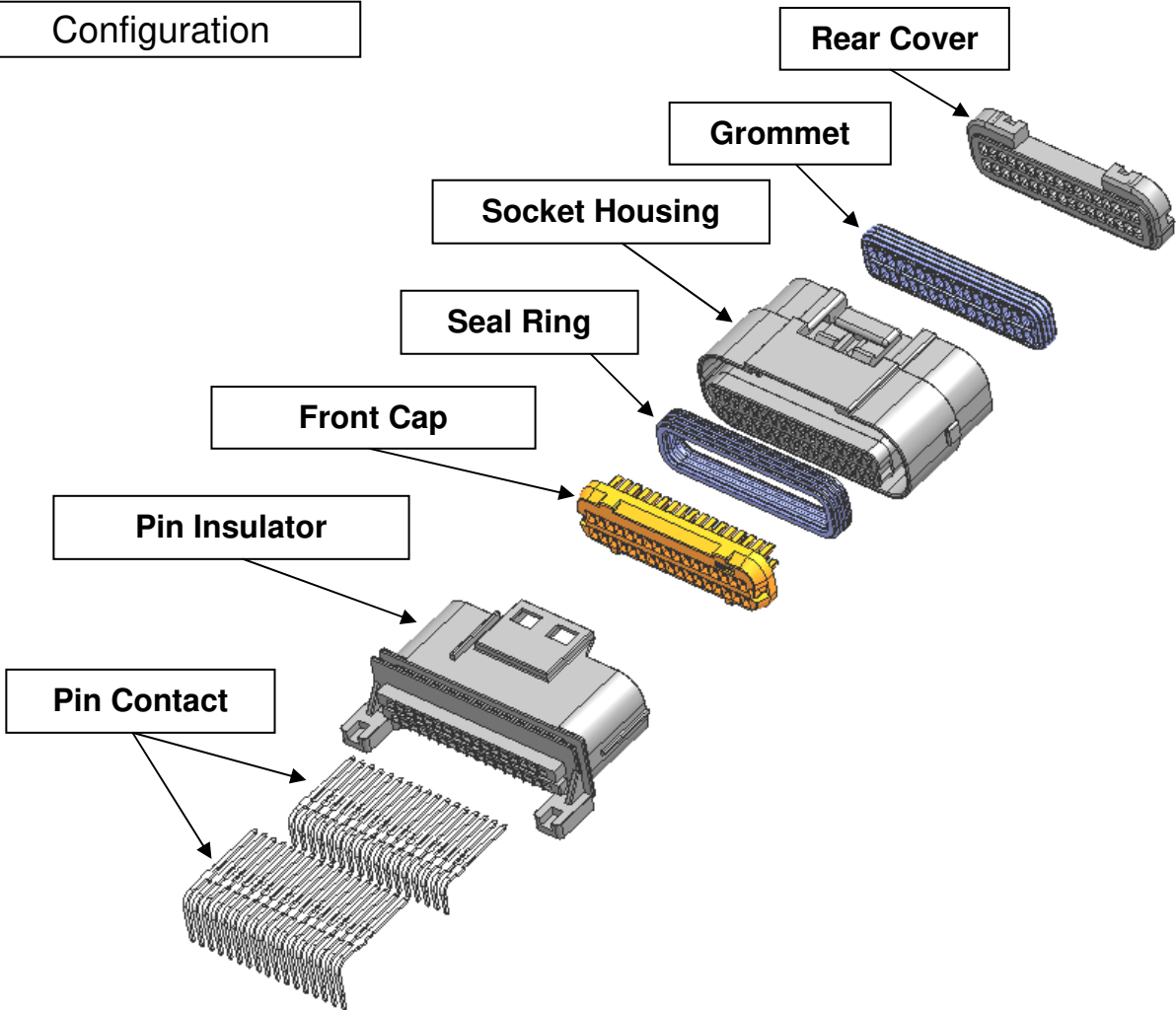
■ Pin Connector

| Component     | Material / Finish           |
|---------------|-----------------------------|
| Pin Insulator | Glass filled PBT            |
| Pin Contact   | Copper alloy/<br>Sn plating |

■ Socket Contact

| Component      | Material / Finish         |
|----------------|---------------------------|
| Socket Contact | Copper alloy / Sn plating |

Configuration

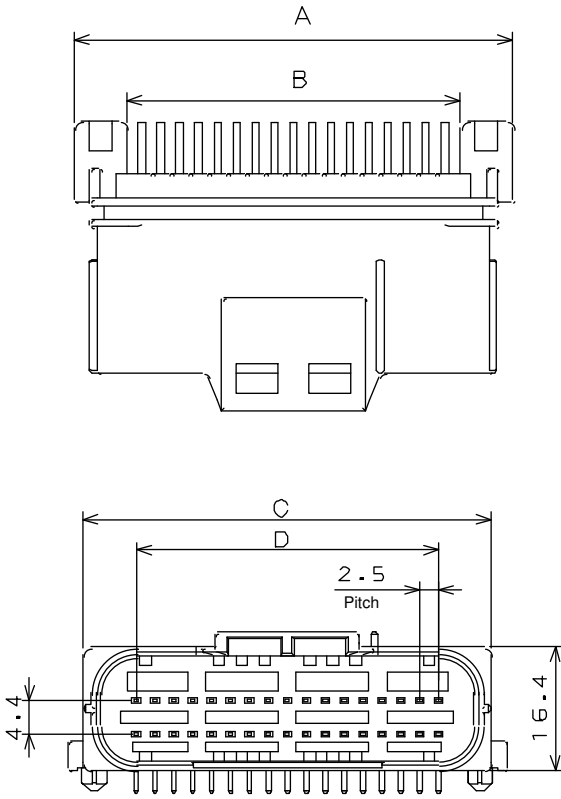


Crimp tool

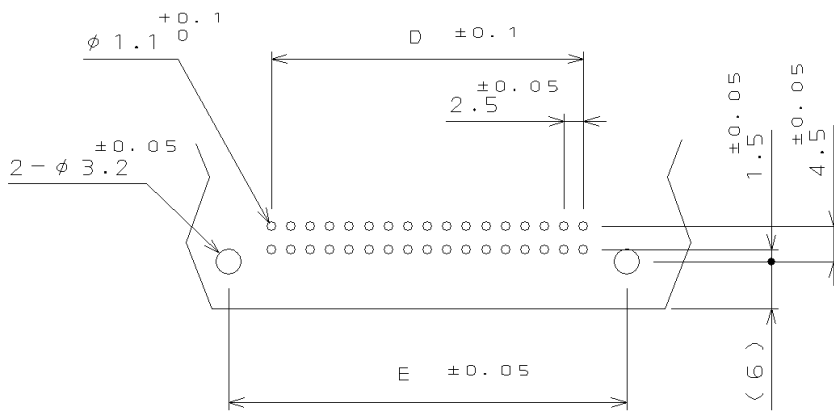
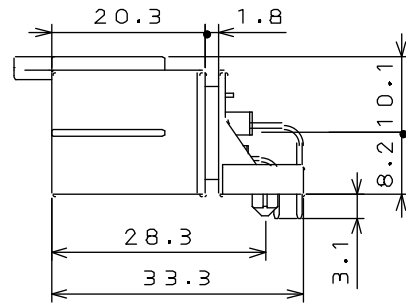
| Hand Crimping tool | Semi Automatic Applicator | Contact Release jig |
|--------------------|---------------------------|---------------------|
| CT160-3B-MX23      | 350-MX23-2                | ET-MX23             |

Outside Dimension

1. Pin Connector (Standard)

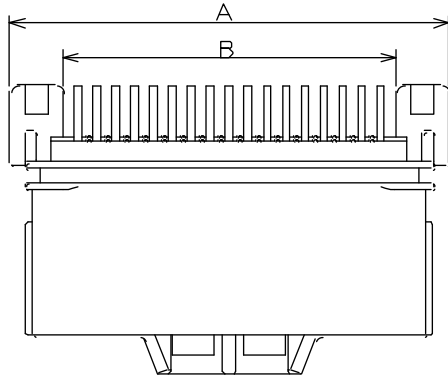


|         | A    | B    | C    | D    | E    |
|---------|------|------|------|------|------|
| 12 pos. | 30.5 | 16.5 | 26.5 | 12.5 | 23.5 |
| 18 pos. | 38   | 24   | 34   | 20   | 31   |
| 26 pos. | 48   | 34   | 44   | 30   | 41   |
| 34 pos. | 58   | 44   | 54   | 40   | 51   |

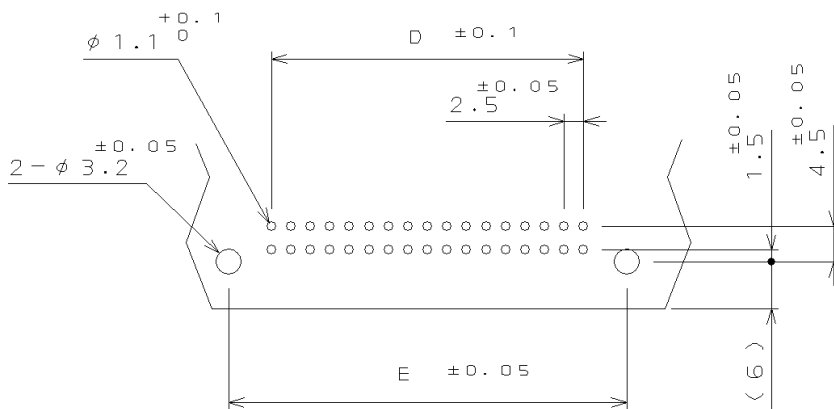
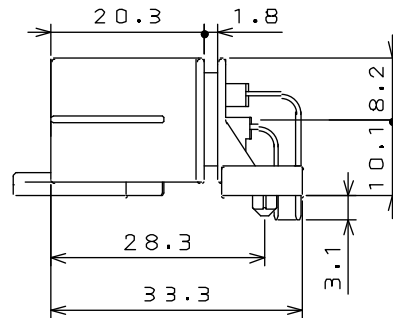
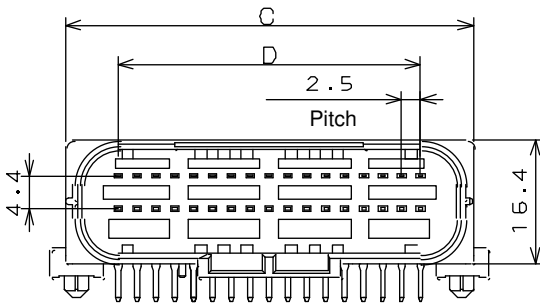


Recommended foot-pattern for PWB  
( for reference)

**2. Pin Connector (Reverse)**

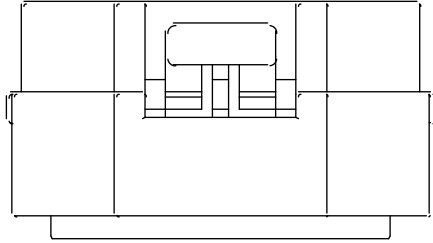


|         | A  | B  | C  | D  | E  |
|---------|----|----|----|----|----|
| 18 pos. | 38 | 24 | 34 | 20 | 31 |
| 26 pos. | 48 | 34 | 44 | 30 | 41 |
| 34 pos. | 58 | 44 | 54 | 40 | 51 |

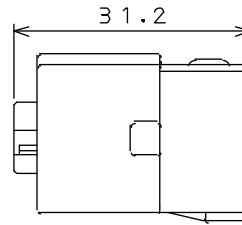
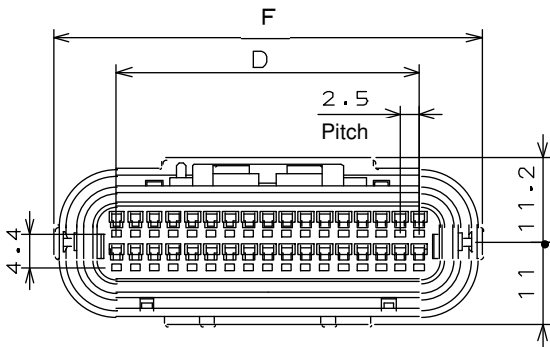


**Recommended foot-pattern for PWB**  
(for reference)

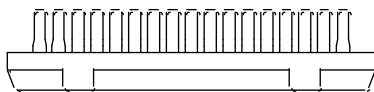
**3. Socket Housing**



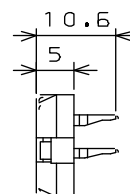
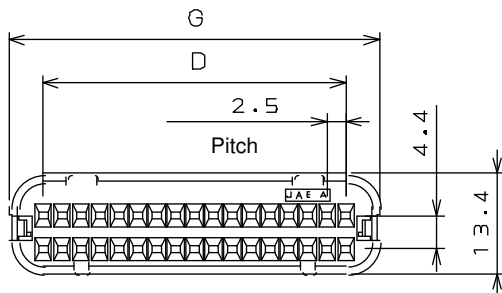
|         | D    | F    |
|---------|------|------|
| 12 pos. | 12.5 | 29.1 |
| 18 pos. | 20   | 36.6 |
| 26 pos. | 30   | 46.6 |
| 34 pos. | 40   | 56.6 |



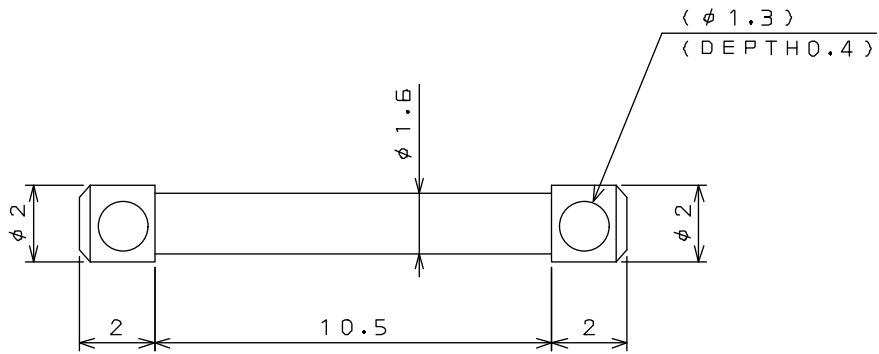
**4. Front Cap**



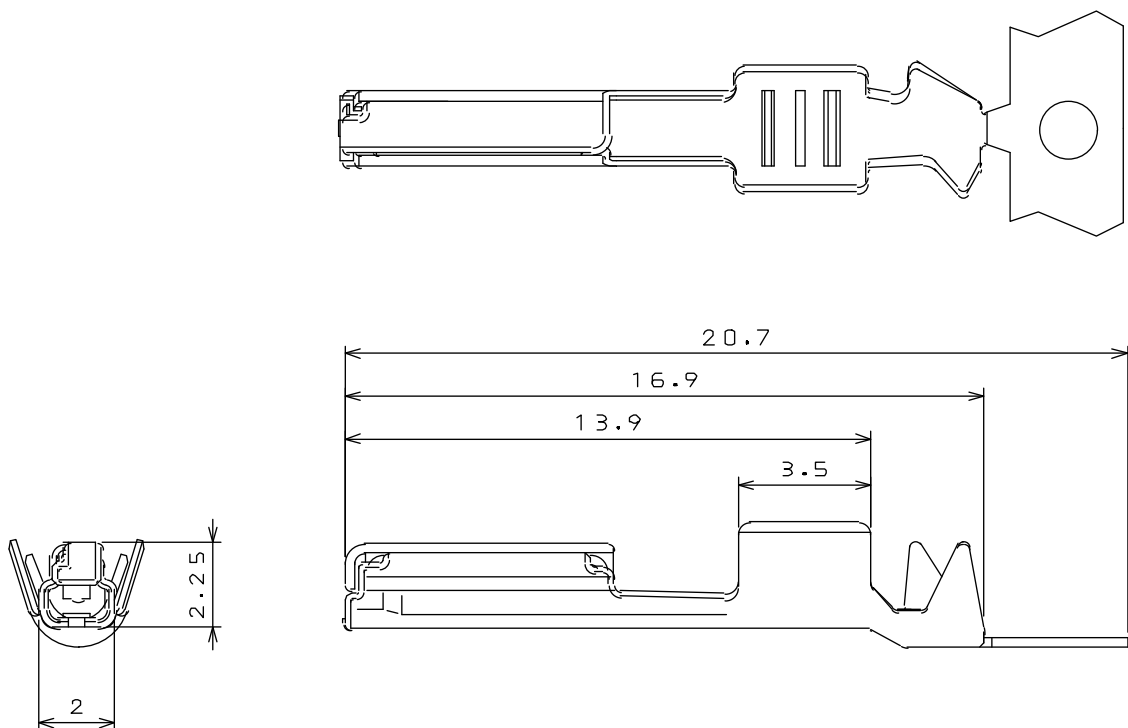
|         | D    | G    |
|---------|------|------|
| 12 pos. | 12.5 | 21.7 |
| 18 pos. | 20   | 28.9 |
| 26 pos. | 30   | 38.9 |
| 34 pos. | 40   | 48.9 |



**5. Dummy Pin (M120-55780)**



**6. Socket Contact (M23S05K351)**



|                       |
|-----------------------|
| <b>Drawing Number</b> |
|-----------------------|

| Part Number | Drawing No. | Note                      |
|-------------|-------------|---------------------------|
| MX23A12SF1  | SJ100915    | 12pos. Socket Housing     |
| MX23A12XF1  | SJ100916    | 12pos. Front Cap          |
| MX23A12NF1  | SJ100917    | 12pos. Standard Pinheader |
|             |             |                           |
| MX23A18SF1  | SJ037397    | 18pos. Socket Housing     |
| MX23A18XF1  | SJ037398    | 18pos. Front Cap          |
| MX23A18NF1  | SJ037399    | 18pos. Standard Pinheader |
| MX23A18NF2  | SJ037400    | 18pos. Reverse Pinheader  |
|             |             |                           |
| MX23A26SF1  | SJ037393    | 26pos. Socket Housing     |
| MX23A26XF1  | SJ037394    | 26pos. Front Cap          |
| MX23A26NF1  | SJ037395    | 26pos. Standard Pinheader |
| MX23A26NF2  | SJ037396    | 26pos. Reverse Pinheader  |
|             |             |                           |
| MX23A34SF1  | SJ037389    | 34pos. Socket Housing     |
| MX23A34XF1  | SJ037390    | 34pos. Front Cap          |
| MX23A34NF1  | SJ037391    | 34pos. Standard Pinheader |
| MX23A34NF2  | SJ037392    | 34pos. Reverse Pinheader  |
|             |             |                           |
| M23S05K351  | SJ036377    | Socket Contact            |
| M120-55780  | SJ036379    | Dummy Pin                 |

|                                                                              |
|------------------------------------------------------------------------------|
| <p>Specification --- JACS-1728<br/> Handling Instructions --- JAHL- 1728</p> |
|------------------------------------------------------------------------------|

## Japan Aviation Electronics Industry, Limited

Product Marketing Division  
Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539  
Phone: +81-3-3780-2787 FAX: +81-3-3780-2946

**Notice:** Products shown in this leaflet are made for the applications listed below. However, if the above-mentioned products are to be used in aerospace devices, marine cable-connection devices, atomic power control systems, medical equipment for life-support systems, or any other specific application requiring extremely high reliability, please contact JAE for further information.

Recommended applications: Computers, Office machines, Measuring devices, Telecommunication devices (Terminals, Mobile devices), AV devices, Household applications, FA devices, etc.