



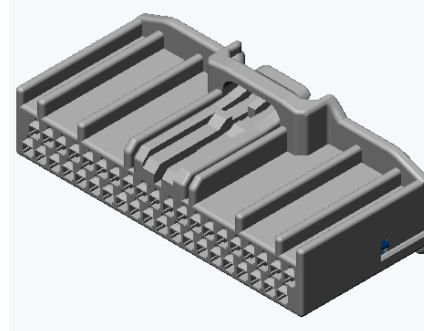
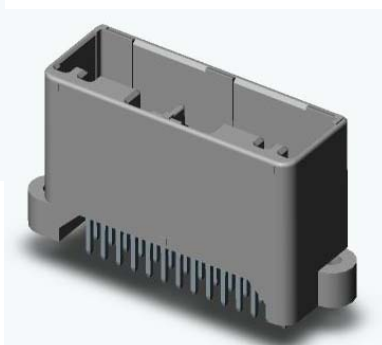
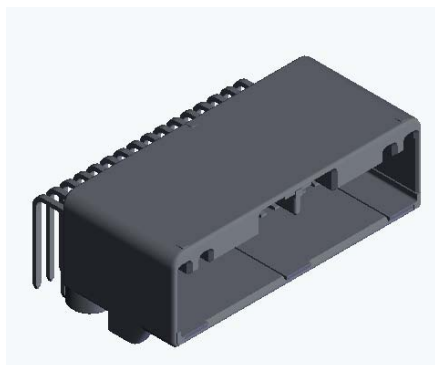
Compact Automotive Connectors for PCB-to-Cable Applications CONNECTOR

MB-0116-3

## MX34 Series

January 2007

RoHS Compliant



The MX34 Series connectors are compact, non-waterproof connectors with a double row of contacts, and are developed for automotive use.

The up to 40 poles reduces mating and unmating force to 80N or less and improves workability. Furthermore, automotive connector requirements such as the preset type of double locking mechanism and box type of pin header are satisfied.

### Features

- Compact, lightweight, double row PCB-to-cable connector with 2.2 mm horizontal pitch and 3 mm diagonal pitch.
- Up to 40 poles reduces the mating and unmating force to 80N or less.
- Socket contact with box-type pin header is durable to external force; contact part is highly resistant to twisting and equipped with a proven double leaf spring.
- Adoption of a preset-type retainer facilitates easy wire harness operation.  
If retainer is not completely inserted in housing, the connector is not engaged, and incomplete contact insertion is detected.
- Lock spring is equipped with a bridge protecting the contacts from external load.

### General Specifications

- |                                                             |                                                 |
|-------------------------------------------------------------|-------------------------------------------------|
| • No. of contacts: 12, 16, 20, 24,<br>28, 32, 36, 40 pos.   | • Insulation resistance: 100M ohm min           |
| • Contact resistance:<br>5m ohm max. (initial)              | • Durability: 50 times                          |
| • Dielectric withstanding voltage:<br>AC 1000V (per minute) | • Applicable wire:<br>Please refer to next page |
| • Operating temperature:<br>-40 Deg. C to +85 Deg. C        |                                                 |
| • Rated current: 3A                                         |                                                 |

## Materials and Finishes

### Socket Connector

| Components     | Materials and Finishes |
|----------------|------------------------|
| Socket housing | 66NY+PPE(ALLOY)        |
| Retainer       | 66NY+PPE(ALLOY)        |

### Pin Connector

| Components    | Materials and Finishes |
|---------------|------------------------|
| Pin insulator | SPS GF 30              |
| Pin contact   | Brass/Sn plating       |
| Pin contact2  | Brass/Sn plating       |

### Socket Contact

| Components     | Materials and Finishes                    |
|----------------|-------------------------------------------|
| Socket contact | Highly conductive material/<br>Sn plating |

## Applicable Wire

| Part Number | Applicable Wire                                                           | SJ Drawing |
|-------------|---------------------------------------------------------------------------|------------|
| M34S75C4F1  | AVSS0.3mm <sup>2</sup> ,<br>CHFUS0.22mm <sup>2</sup> ~0.35mm <sup>2</sup> | SJ038527   |
| M34S75C4F2  | AVSS0.5mm <sup>2</sup> ,<br>CHFUS0.5mm <sup>2</sup> ~0.75mm <sup>2</sup>  | SJ038528   |
| M34S75C4F3  | CAN SD 0.35mm <sup>2</sup> (note1)                                        | SJ038747   |
| M34S75C4F4  | AVSS0.85mm <sup>2</sup> (note2)                                           | SJ038893   |

Note 1: M34S75CF3 and M34S75CF4 can only be inserted in double row cavities on both sides, four housing cavities in total.

## Crimp Tool

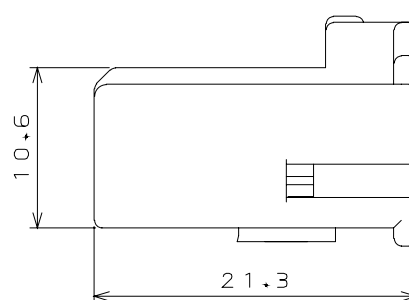
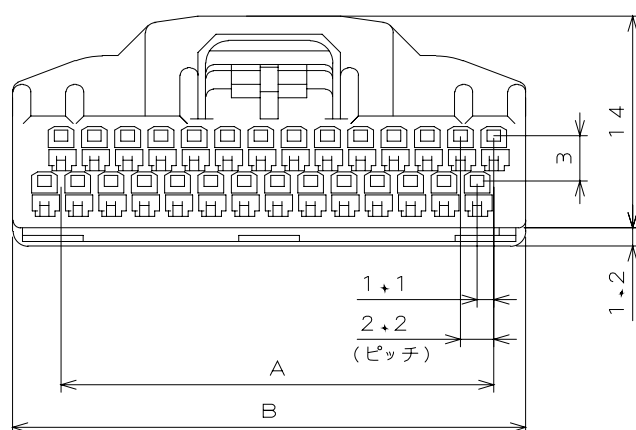
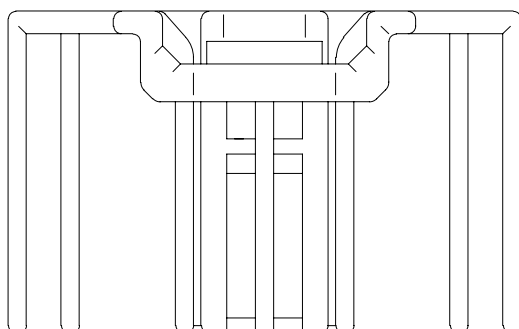
| Part Number   | Hand Crimp Tool | Semi Automatic Applicator | Automatic Applicator |
|---------------|-----------------|---------------------------|----------------------|
| M34S75C4F1    | CT150-2-MX34    | 350-MX34B-2               | 350-MX34B-3B         |
| M34S75C4F2    | CT150-1-MX34    |                           |                      |
| M34S75C4F3, 4 | -----           | 350-MX34C-2               | 350-MX34C-3B         |

## Withdrawal Tool

ET-MX34-1

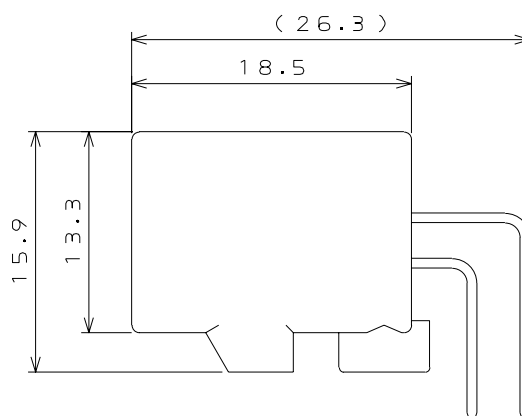
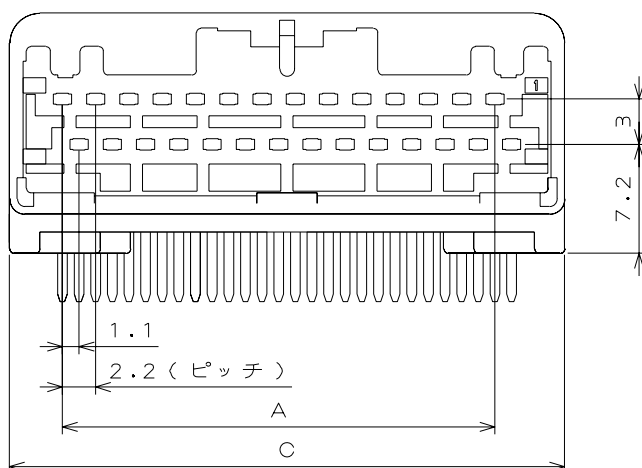
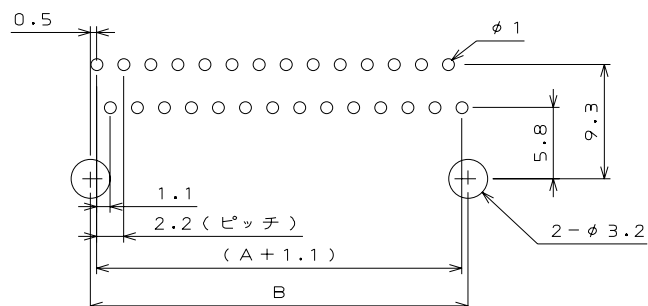
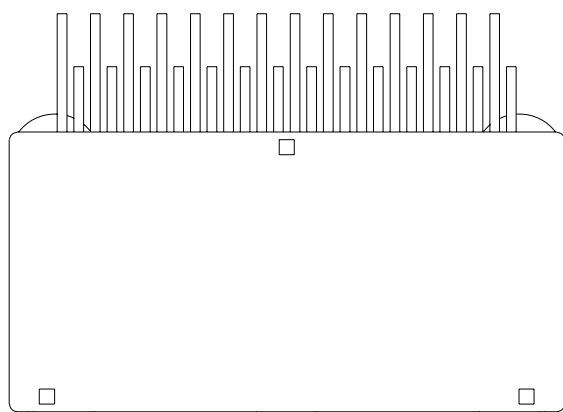
## Outside Dimension

### Socket housing



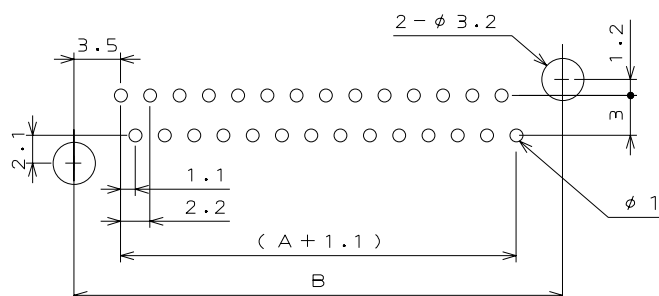
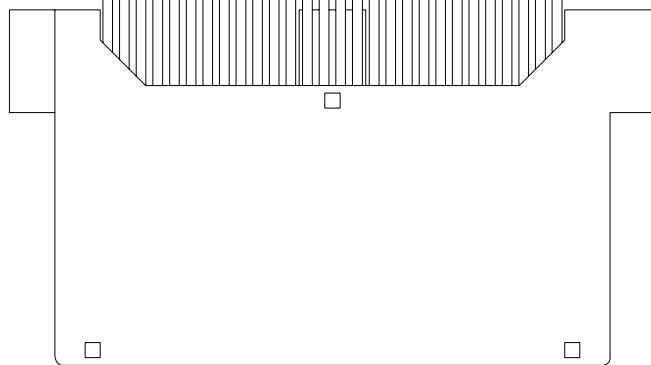
| No.<br>of<br>pos. | Part Number | SJ Drawing | Diameter(A) | Diameter(B) |
|-------------------|-------------|------------|-------------|-------------|
| 12                | MX34012SF1  | SJ100717   | 11.0        | 16.3        |
| 16                | MX34016SF1  | SJ038754   | 15.4        | 20.7        |
| 20                | MX34020SF1  | SJ038752   | 19.8        | 25.1        |
| 24                | MX34024SF1  | SJ100271   | 24.2        | 29.5        |
| 28                | MX34028SF1  | SJ038623   | 28.6        | 33.9        |
| 32                | MX34032SF1  | SJ038756   | 33.0        | 38.3        |
| 36                | MX34036SF1  | SJ100270   | 37.4        | 42.7        |
| 40                | MX34040SF1  | SJ038526   | 41.8        | 47.1        |

## Angle Pin Header



| No. of pos. | Part Number | SJ Drawing | Diameter(A) | Diameter(B) | Diameter(C) |
|-------------|-------------|------------|-------------|-------------|-------------|
| 12          | MX34012NF1  | SJ100715   | 11.0        | 13.1        | 19.1        |
| 16          | MX34016NF1  | SJ038753   | 15.4        | 17.5        | 23.5        |
| 20          | MX34020NF1  | SJ038751   | 19.8        | 21.9        | 27.9        |
| 24          | MX34024NF1  | SJ100269   | 24.2        | 26.3        | 32.3        |
| 28          | MX34028NF2  | SJ106304   | 28.6        | 30.7        | 36.7        |
| 32          | MX34032NF2  | SJ106305   | 33.0        | 35.1        | 41.1        |
| 36          | MX34036NF2  | SJ106307   | 37.4        | 39.5        | 45.5        |
| 40          | MX34040NF2  | SJ106309   | 41.8        | 43.9        | 49.9        |

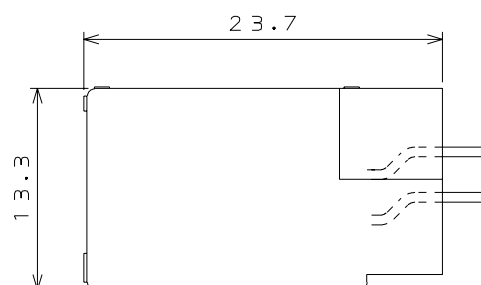
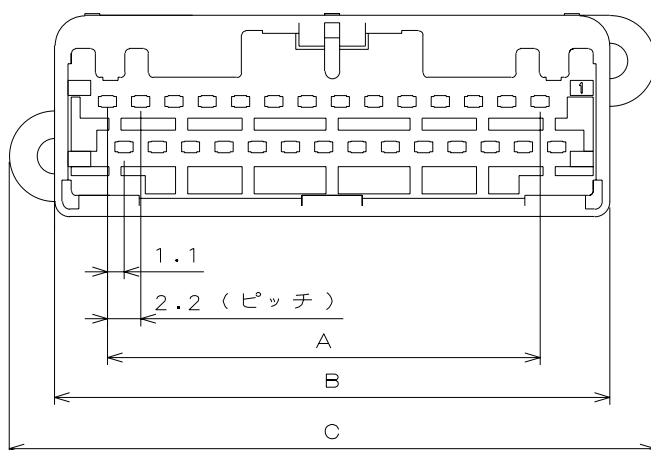
# Straight Pin Header



P.C.B. HOLE PATTERNS (REF.)

基板取付穴寸法 (参考)

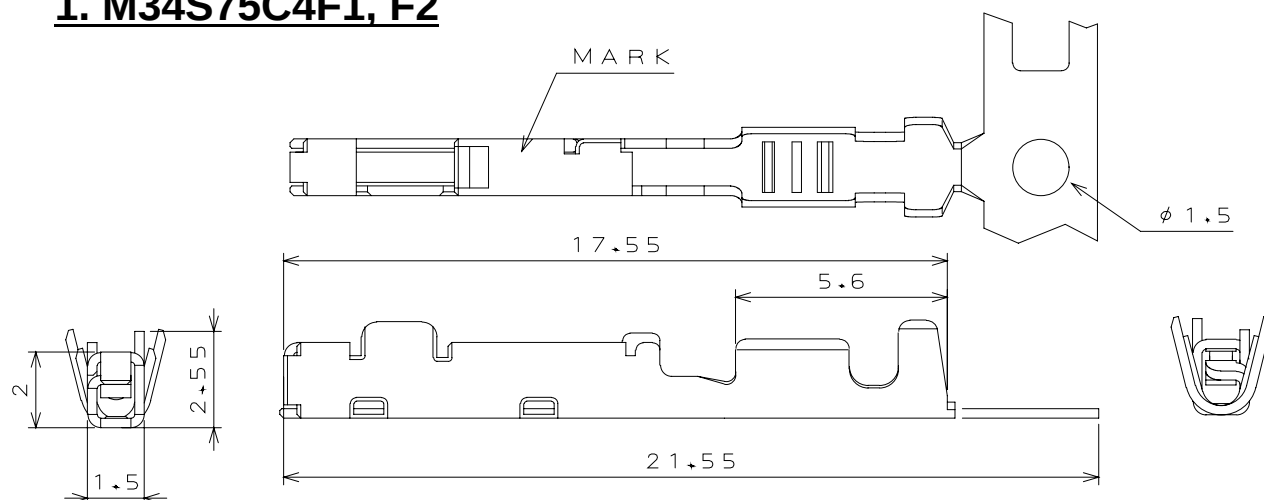
THICKNESS (基板厚) : t 1.6



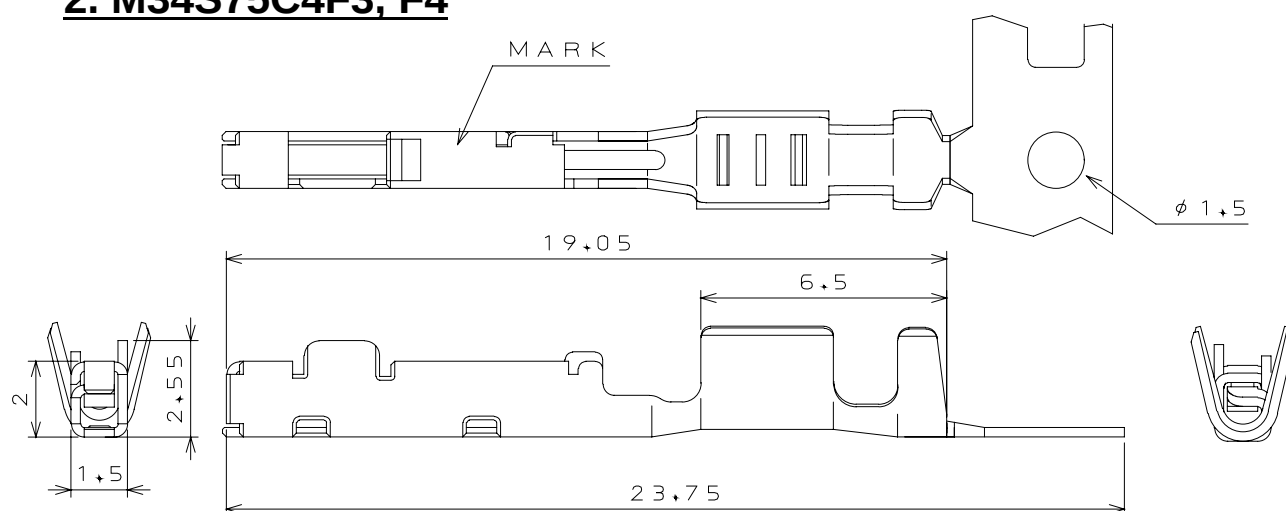
| No.<br>of<br>pos. | Part Number | SJ Drawing | Diameter(A) | Diameter(B) | Diameter(C) |
|-------------------|-------------|------------|-------------|-------------|-------------|
| 12                | MX34012UF1  | SJ100716   | 11.0        | 19.1        | 25.1        |
| 16                | MX34016UF1  | SJ038766   | 15.4        | 23.5        | 29.5        |
| 20                | MX34020UF1  | SJ038765   | 19.8        | 27.9        | 33.9        |
| 24                | MX34024UF1  | SJ100221   | 24.2        | 32.3        | 38.3        |
| 28                | MX34028UF2  | SJ106312   | 28.6        | 36.7        | 42.7        |
| 32                | MX34032UF2  | SJ106313   | 33.0        | 41.1        | 47.1        |
| 36                | MX34036UF2  | SJ106314   | 37.4        | 45.5        | 51.5        |
| 40                | MX34040UF2  | SJ106315   | 41.8        | 49.9        | 55.9        |

## Socket Contact

### 1. M34S75C4F1, F2



### 2. M34S75C4F3, F4



## Others

Specification

JACS-1754

Handling Instructions

JACS-1754

## 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.