



Compact Waterproof Automotive Connectors

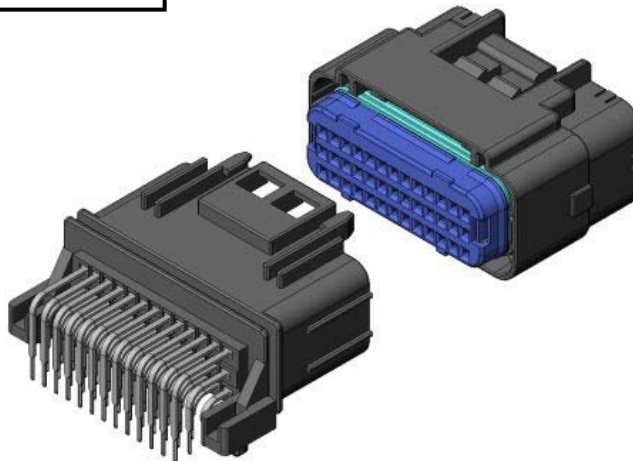
CONNECTOR

MB-0216-1

# MX47 Series

September 2010

**RoHS Compliant**



JAE has developed the MX47 Series compact, high-density waterproof connector for automotive applications.

The MX47 Series utilizes a structure similar to the existing MX23A Series waterproof connector, but is more compact while maintaining a low height.

The applicable cable and performance is equivalent or higher than the MX23A, there is a guide key for secure mating, and pin terminals have Pb-free compliant complete plating. Superior vibration resistance makes the connector ideally suited for use in harsh environments such as the engine areas of both 2 and 4-wheeled vehicles.

**Features**

- 2.5mm horizontal pitch, 3.6mm vertical pitch, 3 row board to wire connector.
- 39 position, different keying available.
- Guide key for secure mating.
- Dowels on both side of connector for light press-fit to board for temporary holding.
- Socket terminal is a compact box type which is strong against external force.
- Retainer is a simple structure front cap type which is easy to attach.
- Pin terminal press-fit structure to prevent leakage of potting material.
- Slim type pin terminal with 0.5mm thickness and 1.0mm width.

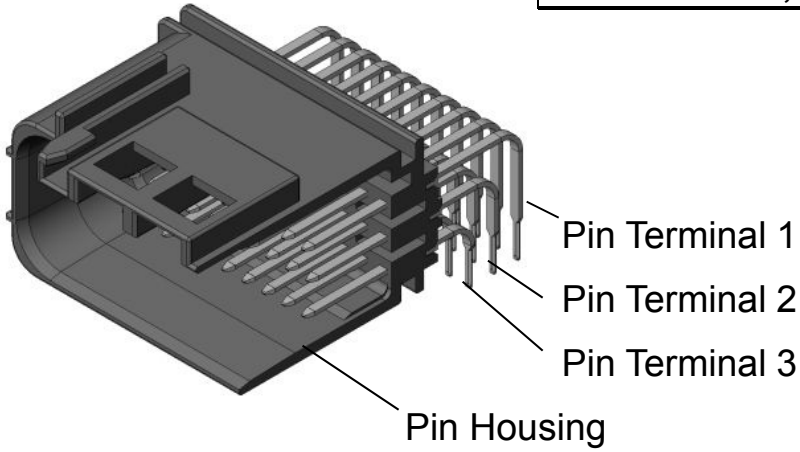
**General Specifications**

- |   |   |
|---|---|
| • No. of Contacts: 39 pos.<br>(Different keying available)                  | • Waterproof: 98 kPa min. (initial)                               |
| • Contact Resistance:<br>5m ohm max. (initial)<br>10m ohm max. (after test) | • Vibration Resistance:<br>20G (50 to 1000Hz) each pole / 9 hours |
| • Rated Current: 3A   | • Applicable Cable: AVSS 0.3 to 1.25sq                            |
| • Connector Insertion Force: 100 N max.                                     | • Operating Temperature:<br>-40 Deg. C to +125 Deg. C             |

Structure, Materials and Finishes

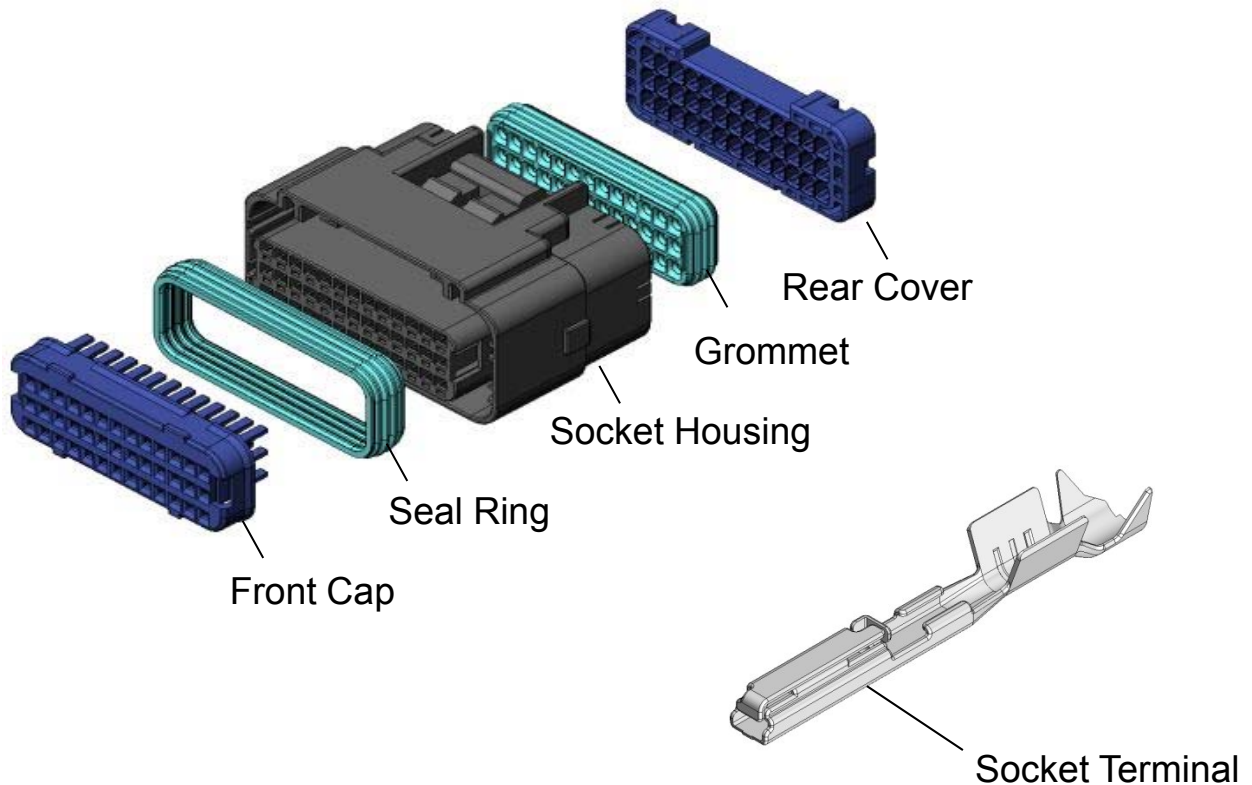
■ Pin Connector

Component	Material / Finish
Pin Housing	30% GF PBT
Pin Terminal 1, 2, 3	Brass / Tin plating



■ Socket Connector  
Front Cap  
Socket Terminal

Component	Material / Finish
Socket Housing	30% GF PBT
Seal Ring	Silicone Rubber
Grommet	Silicone Rubber
Rear Cover	30% GF PBT
Front Cap	30% GF PBT
Socket Terminal	Brass / Tin plating

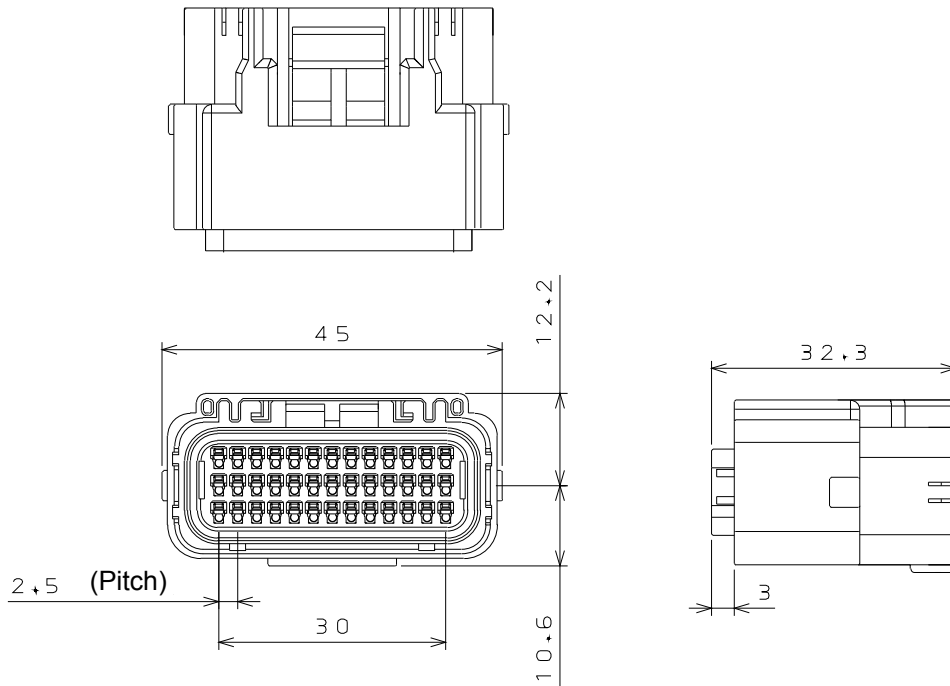


Product Drawing

■ Socket Housing (Available with different keying)

**Part Number: MX47039SF1**

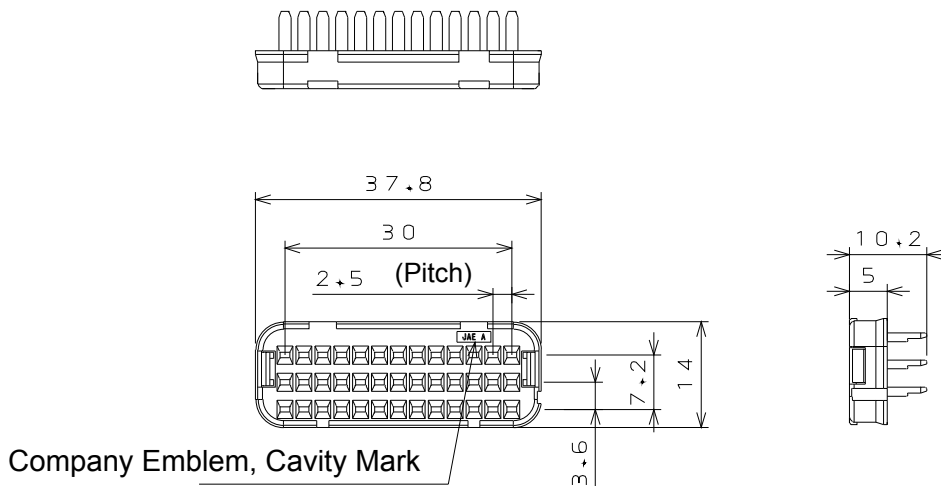
**SJ Drawing: SJ109556**



■ Front Cap (Same for different keying product)

**Part Number: MX47039XF1**

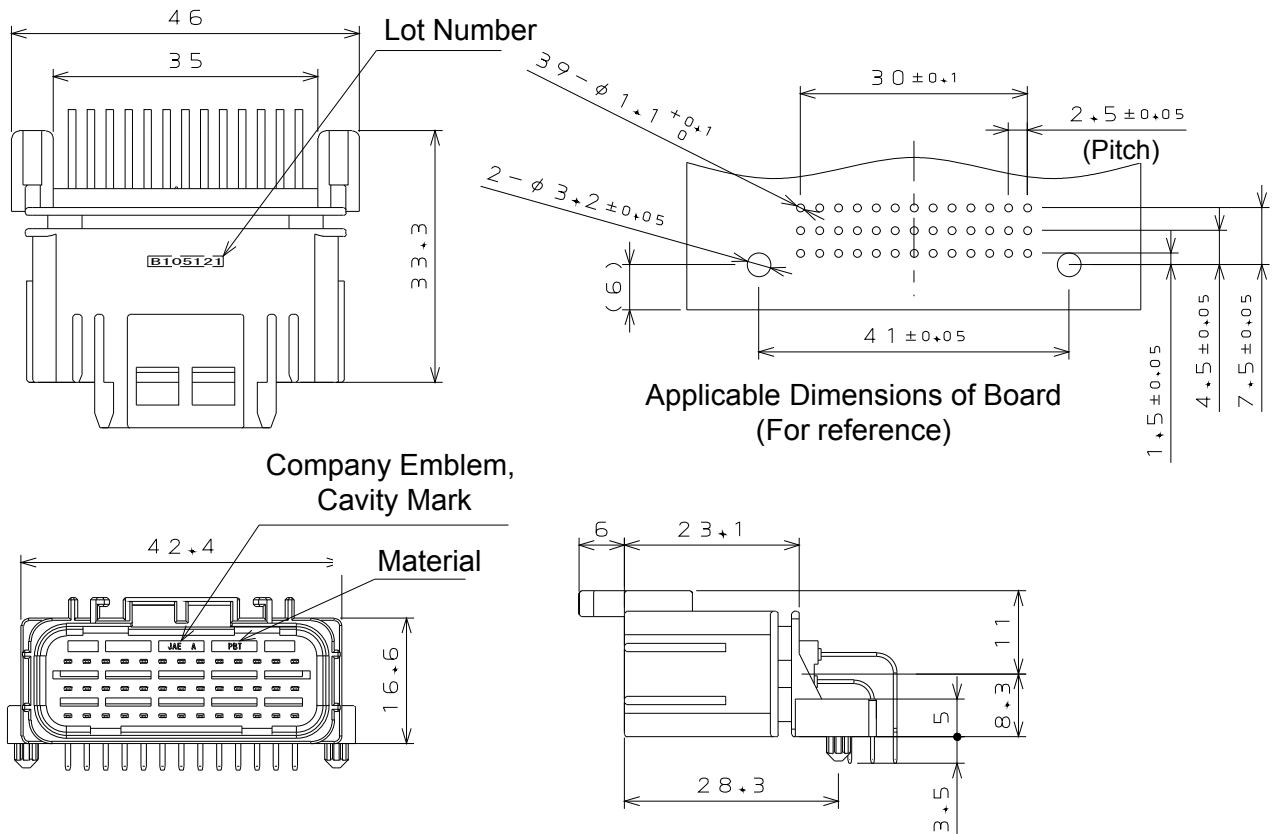
**SJ Drawing: SJ109558**



■ Pin Connector (Available with different keying)

**Part Number: MX47039NF1**

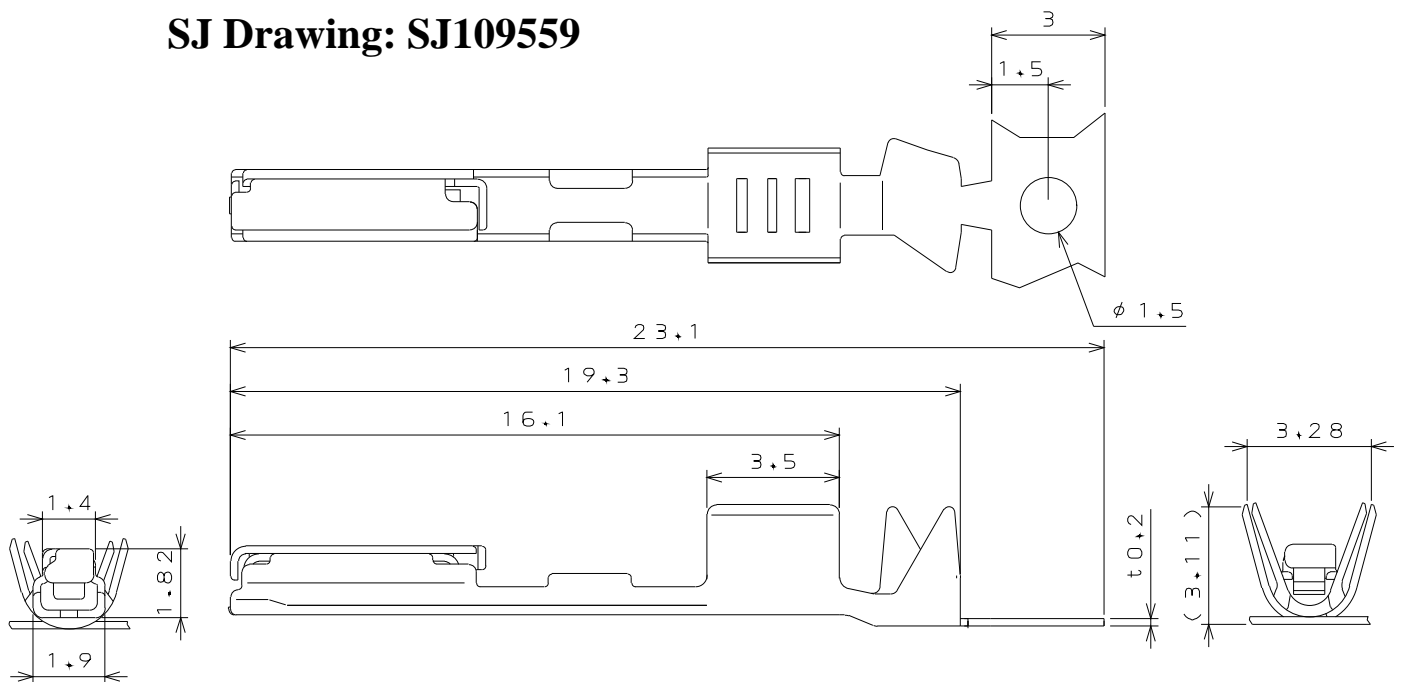
**SJ Drawing: SJ109562**



■ Socket Terminal (Two other sizes available according to wire size.)

**Part Number: M47S65H2FA**

**SJ Drawing: SJ109559**



## Product Line-up

	Part Number	SJ Drawing	Remarks
Pin Connector	MX47039NF1	SJ109562	Standard Product
	MX47039NF2	SJ109563	Different Keying Product
Socket Connector	MX47039SF1	SJ109556	Standard Product
	MX47039SF2	SJ109557	Different Keying Product
Front Cap	MX47039XF1	SJ109558	Can be used for both standard and different keying products
Socket Terminal	M47S65H4FA	SJ109561	Refer to below for applicable wire and Tooling.
	M47S65H3FA	SJ109560	
	M47S65H2FA	SJ109559	
Dummy Plug	M120-55780	SJ036379	Same as MX23A Connector

## Crimp Tools

Socket Terminal	Applicable Wire	Hand Crimp Tool	Semi-Automatic Applicator
M47S65H4FA	0.3~0.5mm <sup>2</sup> , φ1.4~1.6 AVSS 0.3, 0.5 equivalent	CT160-3-MX47	3502-MX47-2
M47S65H3FA	0.75~0.85mm <sup>2</sup> , φ1.8 AVSS0.85 equivalent	CT160-3B-MX47	
M47S65H2FA	1.25mm <sup>2</sup> , φ2.1 AVSS1.25 equivalent	CT160-3C-MX47	

## Terminal Removal Tool

ET-MX47

## Specifications

JACS-10621

## Handling Instructions

JAHL-10621

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**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.