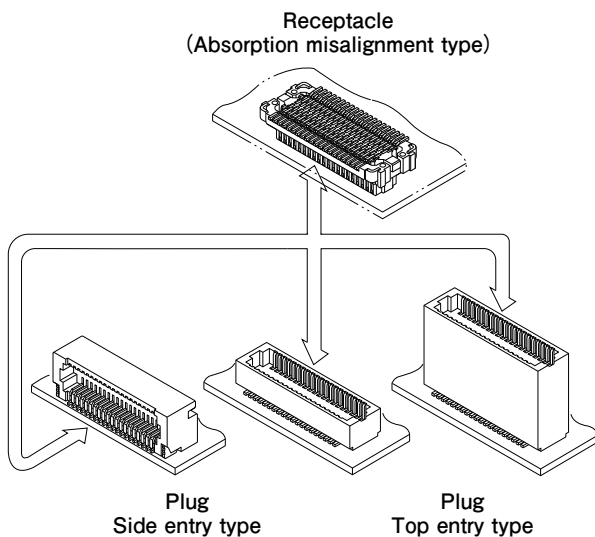
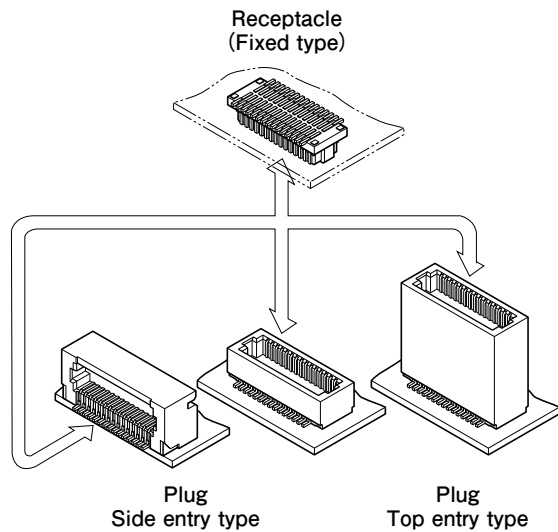


# JMC CONNECTOR

0.5 mm pitch/For PC board/Board-to-board connectors/Mating type



This JMC connector is 0.5 mm pitch SMT type board-to-board connector which realizes miniaturizing and space saving.

Plug connector has the various connection types such as top/side entry types including the stacking height variation and receptacle connector has the fixed/absorption misalignment types.

- Secure mating performance
- Distortion preventive structure
- Available for various number of circuits, and the stacking height of various size
- Absorbing misalignment after mating connector

## Standards

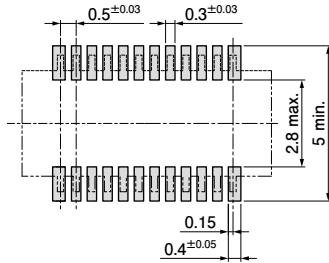
☑ :Recognized E 60389

## Specifications

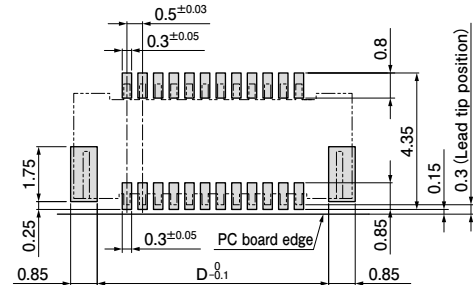
- Current rating: 0.5 A AC/DC
- Voltage rating: 50 V AC/DC
- Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
- Contact resistance:
  - Initial value/ 50 mΩ max.
  - After environmental tests/ 100 mΩ max.
- Insulation resistance: 50 MΩ min.
- Withstanding voltage:
  - There shall be no breakdown or flashover while applying 100 VAC for one minute.
- \* Contact JST for nitrogen (N<sub>2</sub>) reflow soldering.
- \* In using the products, refer to "Handling Precautions for Terminals and Connectors" described on our website (Technical documents of Product information page).
- \* RoHS2 compliance
- \* Dimensional unit: mm
- \* Contact JST for details.

## PC board layout and Assembly layout

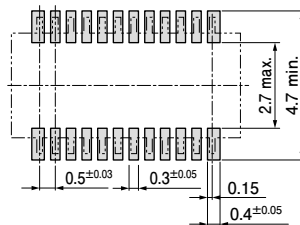
### Plug Top entry type



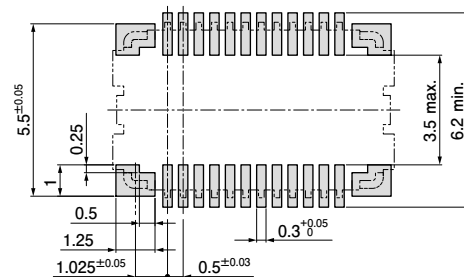
### Plug Side entry type



### Receptacle (Fixed type)



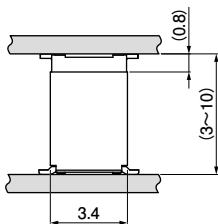
### Receptacle (Absorption misalignment type)



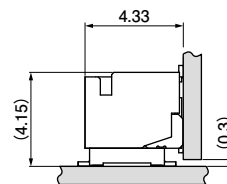
- Note: 1. The above figure is the figure viewed from the connector mounting side.  
 Tolerances of pattern pitch on the PC board shall be  $\pm 0.03$  mm and not be acumulative over the entire area.  
 2. Dimension D: See the table of Plug side entry type on page 4.  
 3. Please contact JST for details as the dimensions shown in the above figure are reference values.

### Receptacle (Fixed type)

- Parallel connection  
Stacking height: 3 mm to 10 mm

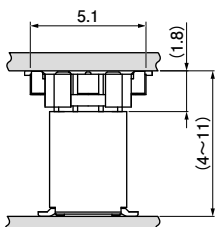


- Vertical connection

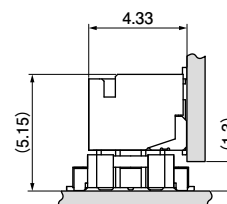


### Receptacle (Absorption misalignment type)

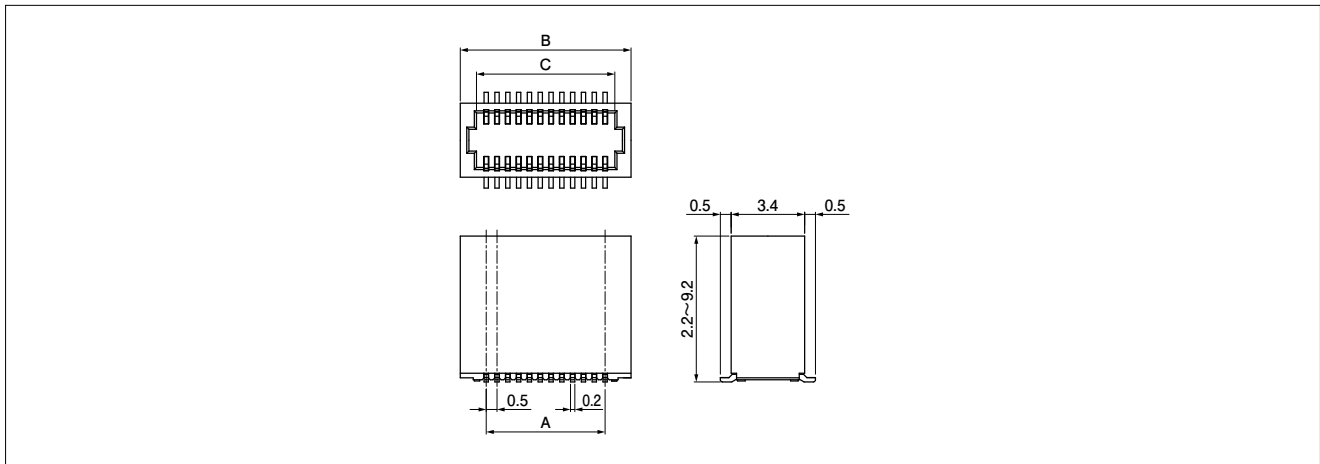
- Parallel connection  
Stacking height: 4 mm to 11 mm  
\* Each stacking height using absorption misalignment type receptacle is 1 mm larger compared with using the fixed type.



- Vertical connection  
\* The mounting height using absorption misalignment type receptacle is 1 mm larger compared with using the fixed type.



## Plug Top entry type



| No. of circuits | Model No.  |  |  |  | Dimensions (mm) |      |      |
|-----------------|--|--|--|--|-----------------|------|------|
|                 | Stacking height<br>3.0 (4.0) mm <small>Note1</small> | Stacking height<br>3.5 (4.5) mm <small>Note1</small> | Stacking height<br>4.0 (5.0) mm <small>Note1</small> | Stacking height<br>4.5 (5.5) mm <small>Note1</small> | A               | B    | C    |
| 14              | 14P3.0-JMCS-GAN-A-TF                                 | —  | —  | —  | 3.0             | 5.4  | 3.9  |
| 18              | 18P3.0-JMCS-GAN-A-TF                                 | —  | —  | —  | 4.0             | 6.4  | 4.9  |
| 20              | 20P3.0-JMCS-GAN-A-TF                                 | 20P3.5-JMCS-GAN-A-TF                                 | —  | 20P4.5-JMCS-GAN-A-TF                                 | 4.5             | 6.9  | 5.4  |
| 24              | —  | 24P3.5-JMCS-GAN-A-TF                                 | 24P4.0-JMCS-GAN-A-TF                                 | —  | 5.5             | 7.9  | 6.4  |
| 30              | 30P3.0-JMCS-GAN-A-TF                                 | 30P3.5-JMCS-GAN-A-TF                                 | 30P4.0-JMCS-GAN-A-TF                                 | —  | 7.0             | 9.4  | 7.9  |
| 40              | 40P3.0-JMCS-GAN-A-TF                                 | 40P3.5-JMCS-GAN-A-TF                                 | 40P4.0-JMCS-GAN-A-TF                                 | —  | 9.5             | 11.9 | 10.4 |
| 42              | —  | 42P3.5-JMCS-GAN-A-TF                                 | —  | —  | 10.0            | 12.4 | 10.9 |
| 50              | 50P3.0-JMCS-GAN-A-TF                                 | —  | 50P4.0-JMCS-GAN-A-TF                                 | 50P4.5-JMCS-GAN-A-TF                                 | 12.0            | 14.4 | 12.9 |
| 60              | 60P3.0-JMCS-GAN-A-TF                                 | —  | 60P4.0-JMCS-GAN-A-TF                                 | 60P4.5-JMCS-GAN-A-TF                                 | 14.5            | 16.9 | 15.4 |
| Q'ty/reel       | 3,400  | 2,800  | 2,500  | 2,200  |                 |      |      |

| No. of circuits | Model No.  |  |  |  | Dimensions (mm) |      |      |
|-----------------|--|--|--|--|-----------------|------|------|
|                 | Stacking height<br>5.0 (6.0) mm <small>Note1</small> | Stacking height<br>5.5 (6.5) mm <small>Note1</small> | Stacking height<br>6.0 (7.0) mm <small>Note1</small> | Stacking height<br>6.5 (7.5) mm <small>Note1</small> | A               | B    | C    |
| 14              | 14P5.0-JMCS-GAN-A-TF                                 | —  | —  | —  | 3.0             | 5.4  | 3.9  |
| 20              | 20P5.0-JMCS-GAN-A-TF                                 | 20P5.5-JMCS-GAN-A-TF                                 | 20P6.0-JMCS-GAN-A-TF                                 | —  | 4.5             | 6.9  | 5.4  |
| 30              | 30P5.0-JMCS-GAN-A-TF                                 | —  | —  | 30P6.5-JMCS-GAN-A-TF                                 | 7.0             | 9.4  | 7.9  |
| 40              | 40P5.0-JMCS-GAN-A-TF                                 | —  | 40P6.0-JMCS-GAN-A-TF                                 | 40P6.5-JMCS-GAN-A-TF                                 | 9.5             | 11.9 | 10.4 |
| 50              | 50P5.0-JMCS-GAN-A-TF                                 | —  | —  | —  | 12.0            | 14.4 | 12.9 |
| 60              | 60P5.0-JMCS-GAN-A-TF                                 | 60P5.5-JMCS-GAN-A-TF                                 | 60P6.0-JMCS-GAN-A-TF                                 | —  | 14.5            | 16.9 | 15.4 |
| Q'ty/reel       | 2,000  | 1,800  | 1,500  | 1,500  |                 |      |      |

| No. of circuits | Model No.  |  |  |  | Dimensions (mm) |      |      |
|-----------------|--|--|--|--|-----------------|------|------|
|                 | Stacking height<br>7.0 (8.0) mm <small>Note1</small> | Stacking height<br>7.5 (8.5) mm <small>Note1</small> | Stacking height<br>8.0 (9.0) mm <small>Note1</small> | Stacking height<br>8.5 (9.5) mm <small>Note1</small> | A               | B    | C    |
| 20              | 20P7.0-JMCS-GAN-A-TF                                 | —  | —  | —  | 4.5             | 6.9  | 5.4  |
| 34              | —  | —  | —  | 34P8.5-JMCS-GAN-A-TF                                 | 8.0             | 10.4 | 8.9  |
| 50              | 50P7.0-JMCS-GAN-A-TF                                 | 50P7.5-JMCS-GAN-A-TF                                 | 50P8.0-JMCS-GAN-A-TF                                 | —  | 12.0            | 14.4 | 12.9 |
| 64              | —  | —  | 64P8.0-JMCS-GAN-A-TF                                 | —  | 15.5            | 17.9 | 16.4 |
| Q'ty/reel       | 1,500  | 1,000  | 800  | 800  |                 |      |      |

### Material and Finish

Contact: Brass, nickel-undercoated, gold-plated  
Housing: Modified 6T Nylon, UL94V-0

### RoHS2 compliance

Note: 1. The number without parentheses means the stacking height when mating with the fixed type receptacle and the number with parentheses means it when mating with absorption misalignment type receptacle.  
2. The product listed above is supplied on embossed-tape.

## Plug Top entry type

| No. of circuits | Model No.  |   |   |   | Dimensions (mm) |      |      |
|-----------------|--|---|---|---|-----------------|------|------|
|                 | Stacking height<br>9.0 (10.0) mm <sup>Note1)</sup> | Stacking height<br>10.0 (11.0) mm <sup>Note1)</sup> | — | — | A               | B    | C    |
| 20              | —  | 20P10.0-JMCS-GAN-A-TF                               | — | — | 4.5             | 6.9  | 5.4  |
| 24              | —  | 24P10.0-JMCS-GAN-A-TF                               | — | — | 5.5             | 7.9  | 6.4  |
| 30              | 30P9.0-JMCS-GAN-A-TF                               | —   | — | — | 7.0             | 9.4  | 7.9  |
| 40              | 40P9.0-JMCS-GAN-A-TF                               | 40P10.0-JMCS-GAN-A-TF                               | — | — | 9.5             | 11.9 | 10.4 |
| 50              | 50P9.0-JMCS-GAN-A-TF                               | —   | — | — | 12.0            | 14.4 | 12.9 |
| 60              | 60P9.0-JMCS-GAN-A-TF                               | —   | — | — | 14.5            | 16.9 | 15.4 |
| Q'ty/reel       | 800  | 700   | — | — |                 |      |      |

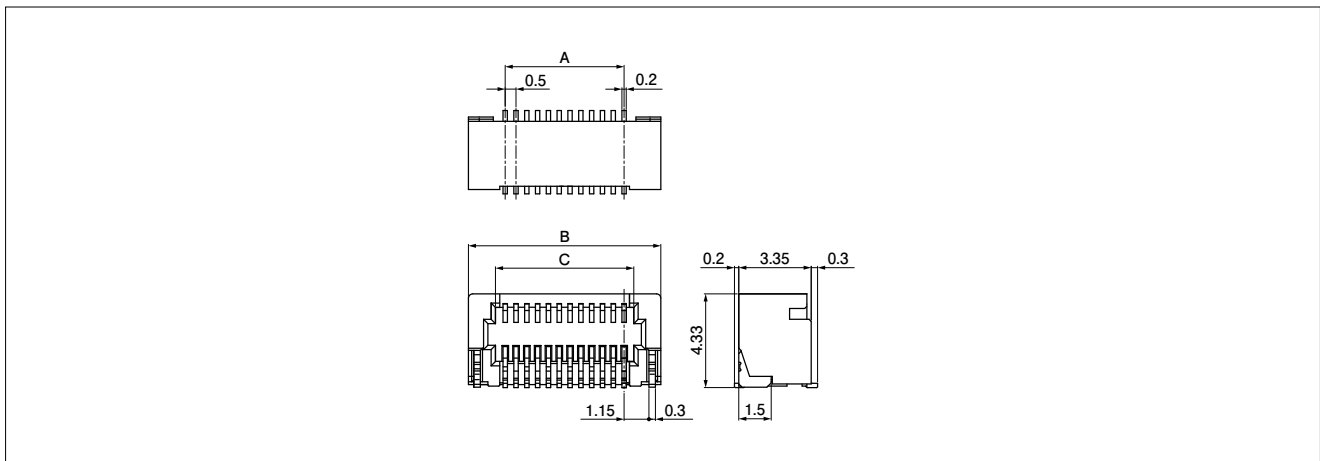
### Material and Finish

Contact: Brass, nickel-undercoated, gold-plated  
Housing: Modified 6T Nylon, UL94V-0

### RoHS2 compliance

Note: 1. The number without parentheses means the stacking height when mating with the fixed type receptacle and the number with parentheses means it when mating with absorption misalignment type receptacle.  
2. The product listed above is supplied on embossed-tape.

## Plug Side entry type



| No. of circuits | Model No.            | Dimensions (mm) |      |      |      | Q'ty/reel |
|-----------------|----------------------|-----------------|------|------|------|-----------|
|                 |                      | A               | B    | C    | D    |           |
| 16              | 16PS-JMCS-GAN-1-A-TF | 3.5             | 6.9  | 4.4  | 5.4  | 2,000     |
| 20              | 20PS-JMCS-GAN-1-A-TF | 4.5             | 7.9  | 5.4  | 6.4  | 2,000     |
| 24              | 24PS-JMCS-GAN-1-A-TF | 5.5             | 8.9  | 6.4  | 7.4  | 2,000     |
| 30              | 30PS-JMCS-GAN-1-A-TF | 7.0             | 10.4 | 7.9  | 8.9  | 2,000     |
| 34              | 34PS-JMCS-GAN-1-A-TF | 8.0             | 11.4 | 8.9  | 9.9  | 2,000     |
| 40              | 40PS-JMCS-GAN-1-A-TF | 9.5             | 12.9 | 10.4 | 11.4 | 2,000     |
| 46              | 46PS-JMCS-GAN-1-A-TF | 11.0            | 14.4 | 11.9 | 12.9 | 2,000     |
| 50              | 50PS-JMCS-GAN-1-A-TF | 12.0            | 15.4 | 12.9 | 13.9 | 2,000     |
| 60              | 60PS-JMCS-GAN-1-A-TF | 14.5            | 17.9 | 15.4 | 16.4 | 2,000     |

### Material and Finish

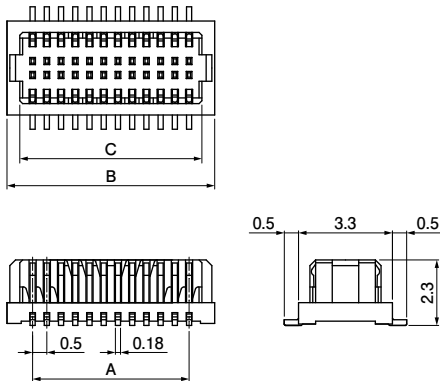
Contact: Brass, nickel-undercoated, gold-plated  
Housing: Modified 6T Nylon, UL94V-0  
Solder tab: Brass, tin-plated

### RoHS2 compliance

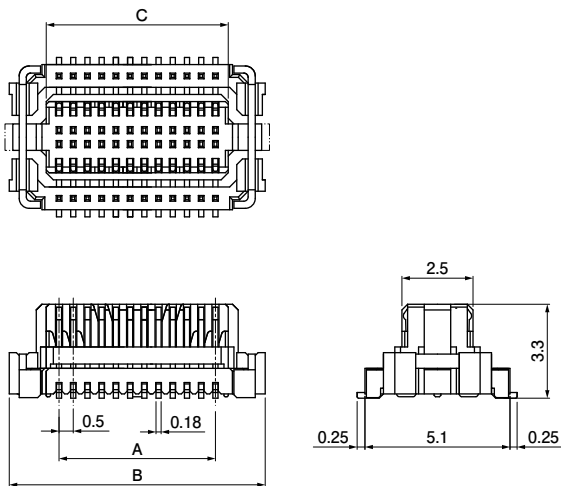
Note: 1. Dimension D: See the PC board layout of Plug side entry type on page 2.  
2. The product listed above is supplied on embossed-tape.

## Receptacle

### Fixed type



### Absorption misalignment type



### Fixed type

| No. of circuits | Model No.       | Dimensions (mm) |      |      | Q'ty/<br>reel |
|-----------------|-----------------|-----------------|------|------|---------------|
|                 |                 | A               | B    | C    |               |
| 14              | 14R-JMCS-GAN-TF | 3.0             | 4.8  | 3.9  | 3,200         |
| 16              | 16R-JMCS-GAN-TF | 3.5             | 5.3  | 4.4  | 3,200         |
| 18              | 18R-JMCS-GAN-TF | 4.0             | 5.8  | 4.9  | 3,200         |
| 20              | 20R-JMCS-GAN-TF | 4.5             | 6.3  | 5.4  | 3,200         |
| 24              | 24R-JMCS-GAN-TF | 5.5             | 7.3  | 6.4  | 3,200         |
| 30              | 30R-JMCS-GAN-TF | 7.0             | 8.8  | 7.9  | 3,200         |
| 34              | 34R-JMCS-GAN-TF | 8.0             | 9.8  | 8.9  | 3,200         |
| 40              | 40R-JMCS-GAN-TF | 9.5             | 11.3 | 10.4 | 3,200         |
| 42              | 42R-JMCS-GAN-TF | 10.0            | 11.8 | 10.9 | 3,200         |
| 46              | 46R-JMCS-GAN-TF | 11.0            | 12.8 | 11.9 | 3,200         |
| 50              | 50R-JMCS-GAN-TF | 12.0            | 13.8 | 12.9 | 3,200         |
| 60              | 60R-JMCS-GAN-TF | 14.5            | 16.3 | 15.4 | 3,200         |

#### Material and Finish

Contact: Phosphor bronze, nickel-undercoated, gold-plated  
Housing: Modified 6T Nylon, UL94V-0

#### RoHS2 compliance

Note: The product listed above is supplied on embossed-tape.

### Absorption misalignment type

| No. of circuits | Model No.          | Dimensions (mm) |      |      | Q'ty/<br>reel |
|-----------------|--------------------|-----------------|------|------|---------------|
|                 |                    | A               | B    | C    |               |
| 20              | 20RF-JMCS-GAN-1-TF | 4.5             | 8.0  | 5.4  | 1,600         |
| 30              | 30RF-JMCS-GAN-1-TF | 7.0             | 10.5 | 7.9  | 1,600         |
| 40              | 40RF-JMCS-GAN-1-TF | 9.5             | 13.0 | 10.4 | 1,600         |
| 50              | 50RF-JMCS-GAN-1-TF | 12.0            | 15.5 | 12.9 | 1,600         |
| 60              | 60RF-JMCS-GAN-1-TF | 14.5            | 18.0 | 15.4 | 1,600         |
| 64              | 64RF-JMCS-GAN-1-TF | 15.5            | 19.0 | 16.4 | 1,600         |

#### Material and Finish

Contact: Phosphor bronze, nickel-undercoated, gold-plated  
Housing: Modified 6T Nylon, UL94V-0  
Solder tab: Brass, copper-undercoated, tin-plated

#### RoHS2 compliance

Note: The product listed above is supplied on embossed-tape.

## Model number allocation

### Plug

|  |  |
|--|--|
|  | <b>30 P 5.0 - JMC S - GAN - 1 - A - TF</b> |
| No. of circuits  |  |
| Type : P...Top entry type<br>PS...Side entry type  |  |
| Stacking height : 3.0 to 10.0/ Top entry type (0.5 pitch)<br>None/ Side entry type                         |  |
| Series name  |  |
| Color: S...Natural   |  |
| Surface finish: GAN...Nickel-undercoated, gold-plated  |  |
| Existence of solder tab: 1...With solder tab/ Side entry type<br>None...Without solder tab/ Top entry type |  |
| Contact material: A...Brass  |  |
| Packaging style: TF...Embossed-taping  |  |

### Receptacle

|   |                                     |
|---|-------------------------------------|
|   | <b>30 RF - JMC S - GAN - 1 - TF</b> |
| No. of circuits   |                                     |
| type : R...Fixed type<br>RF...Absorption misalignment type  |                                     |
| Series name   |                                     |
| Color: S...Natural  |                                     |
| Surface finish: GAN...Nickel-undercoated, gold-plated   |                                     |
| Existence of solder tab: 1...With solder tab/ Absorption misalignment type<br>None...Without solder tab/ Fixed type |                                     |
| Packaging style: TF...Embossed-taping   |                                     |