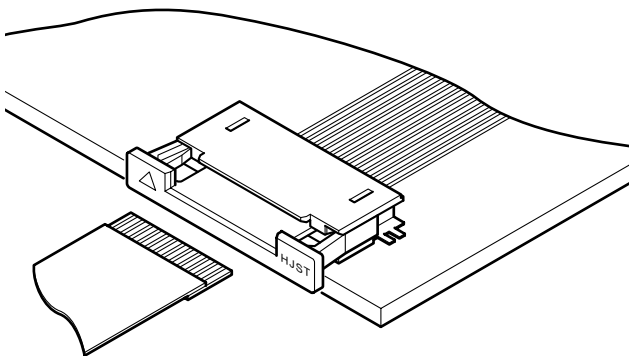


# FLZ CONNECTOR

Connectors for FFC and FPC



**This extremely small 0.5mm (.020") pitch connector with a height of only 2.0mm (.079") above the PCB surface allows interconnection in extremely small spaces and is an example of JST's leading edge technology.**



## Features

- **Zero insertion force mechanism**

A ZIF mechanism increases wear resistance and extends the connector's mating life.

- **Heat resistant design suitable for surface mounting**

This housing is made of heat resistant plastic to allow reflow soldering.

- **In-line surface mount tails**

Has an in-line surface mount tails for easy inspection.

- **Two types of connections**

The connector is available in either the normal or reverse configurations. The FFC/FPC is positioned with its mating surfaces facing upward for the normal configured connector, while the reverse configuration requires that the FFC/FPC be positioned with its mating surfaces facing down. The engineer has greater freedom in designing his circuitry.

- **Embossed tape for automatic mounting**

The FLZ connector can be packaged in embossed tape for automatic mounting.

## Specifications

- Current rating: 0.5A AC, DC
- Voltage rating: 50V AC, DC
- Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/40m Ω max.  
After environmental testing/60m Ω max.
- Insulation resistance: 800M Ω min.
- Withstanding voltage: 200V AC/minute
- Applicable FFC and FPC: Lead pitch/0.5mm(.020")  
Lead width/0.35mm(.014")  
Mating part thickness/  
0.30±0.03mm(.012" ± .001")

*<Note>FFC and FPC to be actually used should be checked for applicability.*

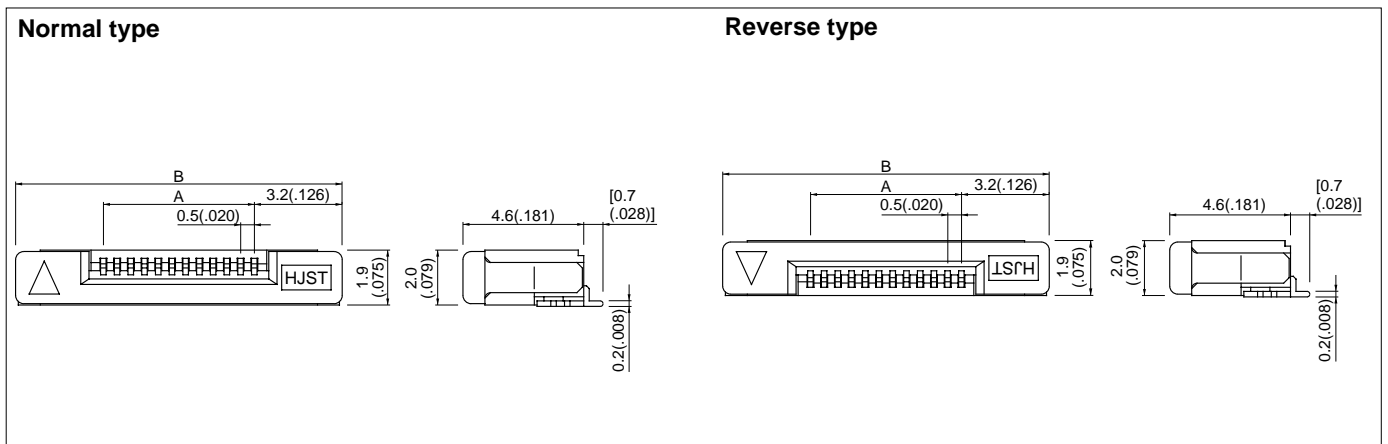
- \* Contact JST if Lead-Free product is required.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

## Standards

Ⓡ Recognized E60389

Ⓢ Certified LR20812

## Connector



| Cir-<br>cuits | Model No.    |               | Dimensions mm(in.) |            | Q'ty /<br>reel |
|---------------|--------------|---------------|--------------------|------------|----------------|
|               | Normal type  | Reverse type  | A                  | B          |                |
| 6             | 06FLZ-SM1-TB | 06FLZ-RSM1-TB | 2.5(.098)          | 8.9(.350)  | 2,000          |
| 7             | 07FLZ-SM1-TB | 07FLZ-RSM1-TB | 3.0(.118)          | 9.4(.370)  | 2,000          |
| 8             | 08FLZ-SM1-TB | 08FLZ-RSM1-TB | 3.5(.138)          | 9.9(.390)  | 2,000          |
| 9             | 09FLZ-SM1-TB | 09FLZ-RSM1-TB | 4.0(.157)          | 10.4(.409) | 2,000          |
| 10            | 10FLZ-SM1-TB | 10FLZ-RSM1-TB | 4.5(.177)          | 10.9(.429) | 2,000          |
| 11            | 11FLZ-SM1-TB | 11FLZ-RSM1-TB | 5.0(.197)          | 11.4(.449) | 2,000          |
| 12            | 12FLZ-SM1-TB | 12FLZ-RSM1-TB | 5.5(.217)          | 11.9(.469) | 2,000          |
| 13            | 13FLZ-SM1-TB | 13FLZ-RSM1-TB | 6.0(.236)          | 12.4(.488) | 2,000          |
| 14            | 14FLZ-SM1-TB | 14FLZ-RSM1-TB | 6.5(.256)          | 12.9(.508) | 2,000          |
| 15            | 15FLZ-SM1-TB | 15FLZ-RSM1-TB | 7.0(.276)          | 13.4(.528) | 2,000          |
| 16            | 16FLZ-SM1-TB | 16FLZ-RSM1-TB | 7.5(.295)          | 13.9(.547) | 2,000          |
| 17            | 17FLZ-SM1-TB | 17FLZ-RSM1-TB | 8.0(.315)          | 14.4(.567) | 2,000          |
| 18            | 18FLZ-SM1-TB | 18FLZ-RSM1-TB | 8.5(.335)          | 14.9(.587) | 2,000          |
| 19            | 19FLZ-SM1-TB | 19FLZ-RSM1-TB | 9.0(.354)          | 15.4(.606) | 2,000          |
| 20            | 20FLZ-SM1-TB | 20FLZ-RSM1-TB | 9.5(.374)          | 15.9(.626) | 2,000          |
| 21            | 21FLZ-SM1-TB | 21FLZ-RSM1-TB | 10.0(.394)         | 16.4(.646) | 2,000          |
| 22            | 22FLZ-SM1-TB | 22FLZ-RSM1-TB | 10.5(.413)         | 16.9(.665) | 2,000          |
| 23            | 23FLZ-SM1-TB | 23FLZ-RSM1-TB | 11.0(.433)         | 17.4(.685) | 2,000          |
| 24            | 24FLZ-SM1-TB | 24FLZ-RSM1-TB | 11.5(.453)         | 17.9(.705) | 2,000          |
| 25            | 25FLZ-SM1-TB | 25FLZ-RSM1-TB | 12.0(.472)         | 18.4(.724) | 2,000          |
| 26            | 26FLZ-SM1-TB | 26FLZ-RSM1-TB | 12.5(.492)         | 18.9(.744) | 2,000          |
| 27            | 27FLZ-SM1-TB | 27FLZ-RSM1-TB | 13.0(.512)         | 19.4(.764) | 2,000          |
| 28            | 28FLZ-SM1-TB | 28FLZ-RSM1-TB | 13.5(.531)         | 19.9(.783) | 2,000          |
| 30            | 30FLZ-SM1-TB | 30FLZ-RSM1-TB | 14.5(.571)         | 20.9(.823) | 2,000          |
| 33            | 33FLZ-SM1-TB | -             | 16.0(.630)         | 22.4(.882) | 2,000          |

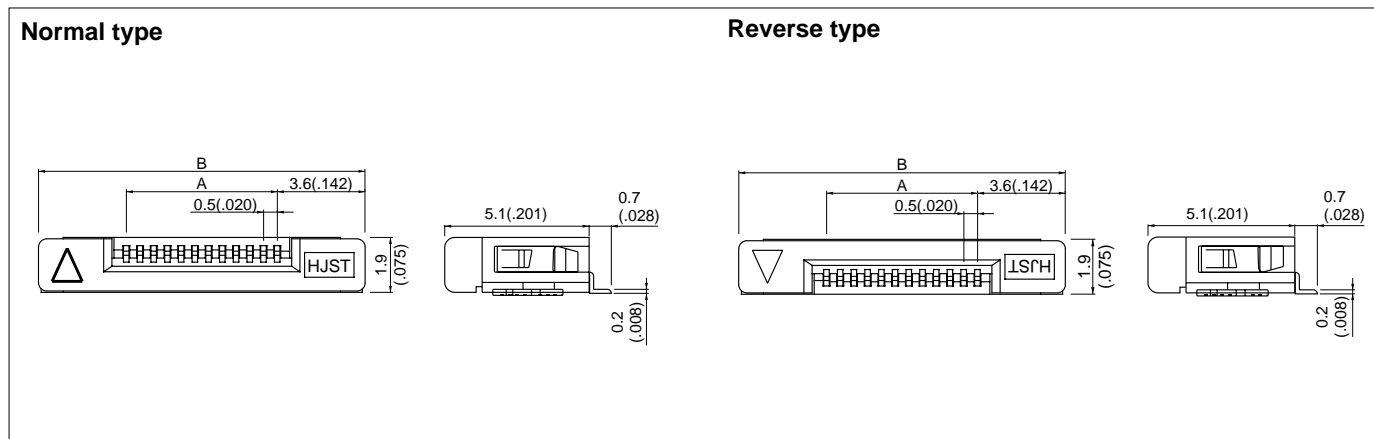
### Material and Finish

Contact: Phosphor bronze, tin/lead-plated  
 Slider housing: Nylon 46, UL94V-0 (black)  
 Receptacle housing: Nylon 46, UL94V-0  
 ( )FLZ-SM1-TB, gray  
 ( )FLZ-RSM1-TB, natural  
 Solder tab: Phosphor bronze, tin/lead-plated

Note: The products listed above are supplied on embossed tape.

# FLZ CONNECTOR

## Connector <Inner-lock type>



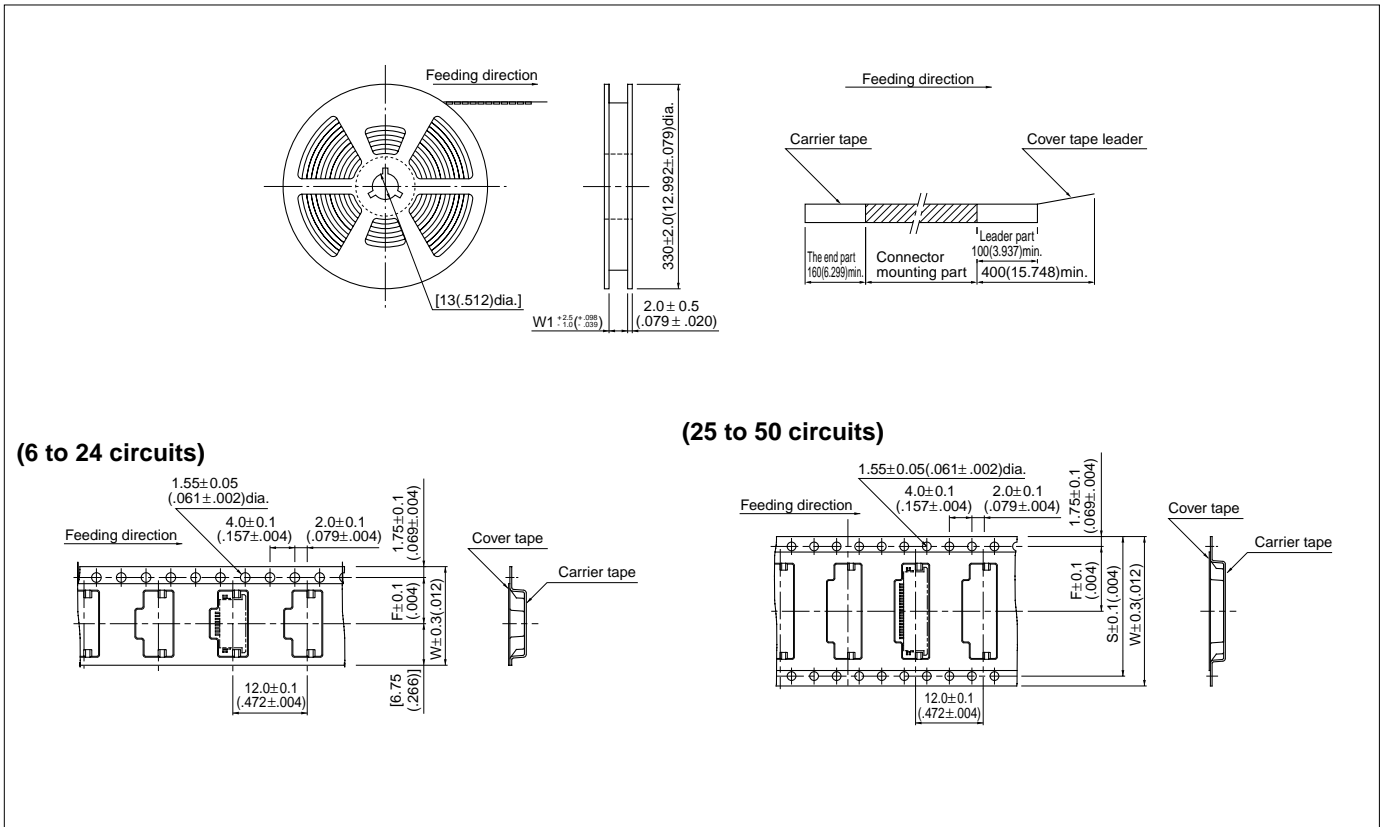
| Cir-<br>cuits | Model No.             |                        | Dimensions mm(in.) |             | Q'ty /<br>reel |
|---------------|-----------------------|------------------------|--------------------|-------------|----------------|
|               | Normal type           | Reverse type           | A                  | B           |                |
| 13            | -                     | <b>13FLZ-RSM1-R-TB</b> | 6.0(.236)          | 13.1( .516) | 2,000          |
| 30            | <b>30FLZ-SM1-R-TB</b> | -                      | 14.5(.571)         | 21.6( .850) | 2,000          |
| 32            | <b>32FLZ-SM1-R-TB</b> | <b>32FLZ-RSM1-R-TB</b> | 15.5(.610)         | 22.6( .890) | 2,000          |
| 34            | <b>34FLZ-SM1-R-TB</b> | <b>34FLZ-RSM1-R-TB</b> | 16.5(.650)         | 23.6( .929) | 2,000          |
| 36            | <b>36FLZ-SM1-R-TB</b> | <b>36FLZ-RSM1-R-TB</b> | 17.5(.689)         | 24.6( .969) | 2,000          |
| 40            | <b>40FLZ-SM1-R-TB</b> | <b>40FLZ-RSM1-R-TB</b> | 19.5(.768)         | 26.6(1.047) | 2,000          |
| 42            | <b>42FLZ-SM1-R-TB</b> | -                      | 20.5(.807)         | 27.6(1.087) | 2,000          |
| 45            | <b>45FLZ-SM1-R-TB</b> | -                      | 22.0(.866)         | 29.1(1.146) | 2,000          |
| 50            | <b>50FLZ-SM1-R-TB</b> | -                      | 24.5(.965)         | 31.6(1.244) | 2,000          |

### Material and Finish

Contact: Phosphor bronze, tin/lead-plated  
 Slider housing: Nylon 46, UL94V-0 (black)  
 Receptacle housing: Nylon 46, UL94V-0  
 ( )FLZ-SM1-R-TB, gray  
 ( )FLZ-RSM1-R-TB, natural  
 Solder tab: Phosphor bronze, tin/lead-plated

Note: 1. The products listed above are supplied on embossed tape.  
 2. 45FLZ-SM1-R-TB and 50FLZ-SM1-R-TB are not CSA approved.

## Taping specifications

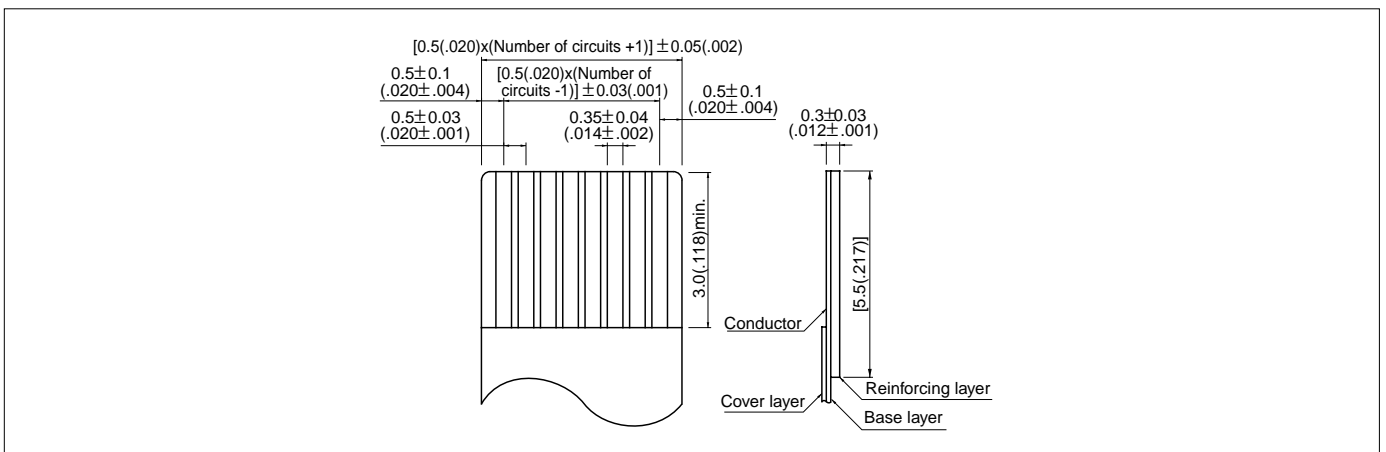


| Circuits | Taping dimensions mm(in.) |             |             | Reel dimensions mm(in.) | Qty / reel |
|----------|---------------------------|-------------|-------------|-------------------------|------------|
|          | F                         | S           | W           | W1                      |            |
| 6 to 8   | 7.5(.295)                 | -           | 16.0(.630)  | 17.5(.689)              | 2,000      |
| 9 to 24  | 11.5(.453)                | -           | 24.0(.945)  | 25.5(1.004)             | 2,000      |
| 25 to 30 | 14.2(.559)                | 28.4(1.118) | 32.0(1.260) | 33.5(1.319)             | 2,000      |
| 32 to 50 | 20.2(.795)                | 40.4(1.591) | 44.0(1.732) | 45.5(1.791)             | 2,000      |

**Note:**

- Specifications conform to JIS C 0806. The tape width, connector recess dimensions, etc. are determined by the number of circuits and external shape of the connector to be loaded.
- Specifications are subject to change without prior notice.

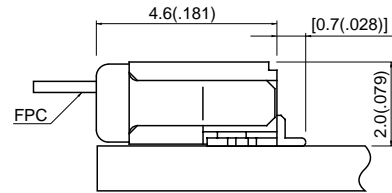
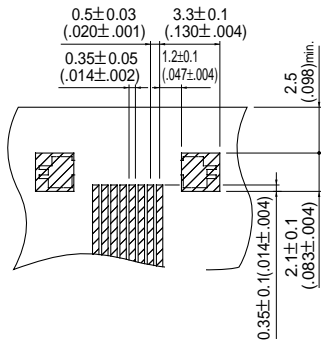
## Lead section dimensions of FFC and FPC



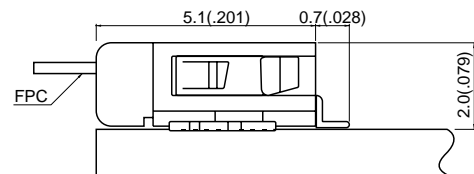
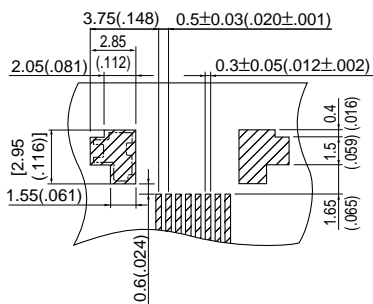
# FLZ CONNECTOR

## PC board layout (viewed from component side) and Assembly layout

### (6 to 33 circuits)



### (13 to 50 circuits) <Inner-lock type>



#### Note:

1. Tolerances are non-cumulative:  $\pm 0.03\text{mm}(\pm 0.001")$  for all centers.
2. The dimensions above should serve as a guideline.  
Contact JST for details.