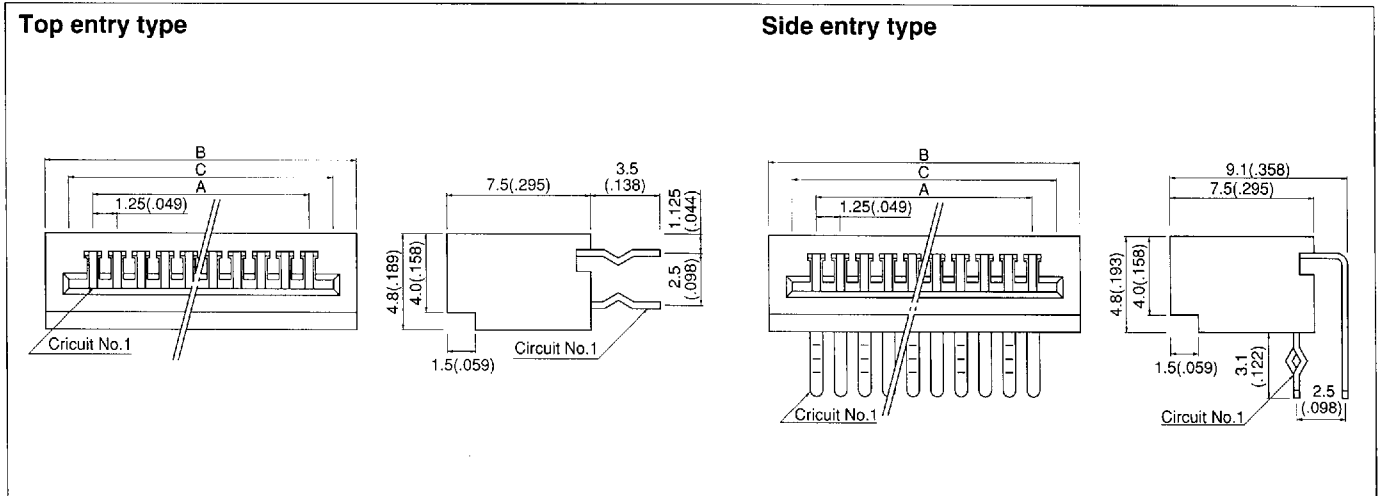


# FE CONNECTOR

## Connector



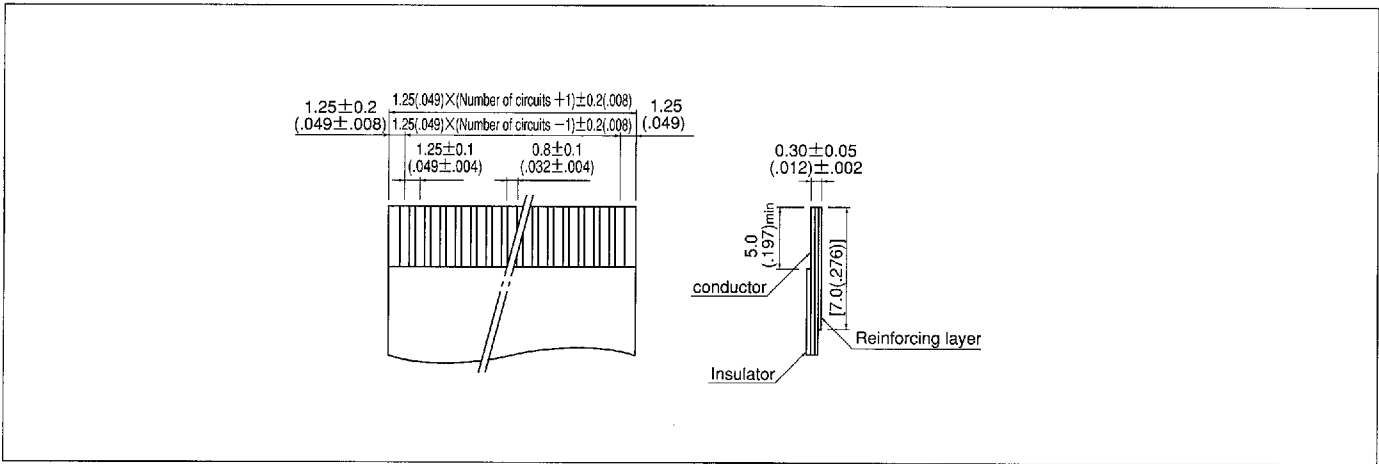
| Circuits | Model No.      |                 | Dimensions mm(in.) |               |               | Q'ty / box     |                 |
|----------|----------------|-----------------|--------------------|---------------|---------------|----------------|-----------------|
|          | Top entry type | Side entry type | A                  | B             | C             | Top entry type | Side entry type |
| 4        | 04FE-BT-VK-N   | 04FE-ST-VK-N    | 3.75 (.148)        | 7.75 (.305)   | 6.35 (.250)   | 2,350          | 1,410           |
| 5        | 05FE-BT-VK-N   | 05FE-ST-VK-N    | 5.00 (.197)        | 9.80 (.386)   | 7.60 (.299)   | 2,000          | 1,200           |
| 6        | 06FE-BT-VK-N   | 06FE-ST-VK-N    | 6.25 (.246)        | 11.05 (.435)  | 8.85 (.348)   | 1,800          | 1,080           |
| 7        | 07FE-BT-VK-N   | 07FE-ST-VK-N    | 7.50 (.295)        | 12.30 (.484)  | 10.10 (.398)  | 1,600          | 960             |
| 8        | 08FE-BT-VK-N   | 08FE-ST-VK-N    | 8.75 (.344)        | 13.55 (.533)  | 11.35 (.447)  | 1,500          | 900             |
| 9        | 09FE-BT-VK-N   | 09FE-ST-VK-N    | 10.00 (.394)       | 14.80 (.583)  | 12.60 (.496)  | 1,350          | 810             |
| 10       | 10FE-BT-VK-N   | 10FE-ST-VK-N    | 11.25 (.443)       | 16.05 (.632)  | 13.85 (.545)  | 1,250          | 750             |
| 11       | 11FE-BT-VK-N   | 11FE-ST-VK-N    | 12.50 (.492)       | 17.30 (.681)  | 15.10 (.594)  | 1,150          | 690             |
| 12       | 12FE-BT-VK-N   | 12FE-ST-VK-N    | 13.75 (.541)       | 18.55 (.730)  | 16.35 (.644)  | 1,100          | 660             |
| 13       | 13FE-BT-VK-N   | 13FE-ST-VK-N    | 15.00 (.591)       | 19.80 (.780)  | 17.60 (.693)  | 1,000          | 600             |
| 14       | 14FE-BT-VK-N   | 14FE-ST-VK-N    | 16.25 (.640)       | 21.05 (.829)  | 18.85 (.742)  | 950            | 570             |
| 15       | 15FE-BT-VK-N   | 15FE-ST-VK-N    | 17.50 (.689)       | 22.30 (.878)  | 20.10 (.791)  | 900            | 540             |
| 16       | 16FE-BT-VK-N   | 16FE-ST-VK-N    | 18.75 (.738)       | 23.55 (.927)  | 21.35 (.841)  | 850            | 510             |
| 17       | 17FE-BT-VK-N   | 17FE-ST-VK-N    | 20.00 (.787)       | 24.80 (.976)  | 22.60 (.890)  | 800            | 480             |
| 18       | 18FE-BT-VK-N   | 18FE-ST-VK-N    | 21.25 (.837)       | 26.05 (1.026) | 23.85 (.939)  | 750            | 450             |
| 19       | 19FE-BT-VK-N   | 19FE-ST-VK-N    | 22.50 (.886)       | 27.30 (1.075) | 25.10 (.988)  | 700            | 420             |
| 20       | 20FE-BT-VK-N   | 20FE-ST-VK-N    | 23.75 (.935)       | 28.55 (1.124) | 26.35 (1.037) | 700            | 420             |
| 21       | 21FE-BT-VK-N   | 21FE-ST-VK-N    | 25.00 (.984)       | 29.80 (1.173) | 27.60 (1.087) | 650            | 390             |
| 22       | 22FE-BT-VK-N   | 22FE-ST-VK-N    | 26.25 (1.033)      | 31.05 (1.222) | 28.85 (1.136) | 650            | 390             |
| 23       | 23FE-BT-VK-N   | 23FE-ST-VK-N    | 27.50 (1.083)      | 32.30 (1.272) | 30.10 (1.185) | 600            | 360             |
| 24       | 24FE-BT-VK-N   | 24FE-ST-VK-N    | 28.75 (1.132)      | 33.55 (1.321) | 31.35 (1.234) | 600            | 360             |
| 25       | 25FE-BT-VK-N   | 25FE-ST-VK-N    | 30.00 (1.181)      | 34.80 (1.370) | 32.60 (1.283) | 550            | 330             |
| 26       | 26FE-BT-VK-N   | 26FE-ST-VK-N    | 31.25 (1.230)      | 36.05 (1.419) | 33.85 (1.333) | 550            | 330             |
| 27       | 27FE-BT-VK-N   | 27FE-ST-VK-N    | 32.50 (1.280)      | 37.30 (1.469) | 35.10 (1.382) | 500            | 300             |
| 28       | 28FE-BT-VK-N   | 28FE-ST-VK-N    | 33.75 (1.329)      | 38.55 (1.518) | 36.35 (1.431) | 500            | 300             |
| 29       | 29FE-BT-VK-N   | 29FE-ST-VK-N    | 35.00 (1.378)      | 39.80 (1.567) | 37.60 (1.480) | 500            | 300             |
| 30       | 30FE-BT-VK-N   | 30FE-ST-VK-N    | 36.25 (1.427)      | 41.05 (1.616) | 38.85 (1.530) | 450            | 270             |
| 31       | 31FE-BT-VK-N   | 31FE-ST-VK-N    | 37.50 (1.476)      | 42.30 (1.665) | 40.10 (1.579) | 450            | 270             |
| 32       | 32FE-BT-VK-N   | 32FE-ST-VK-N    | 38.75 (1.526)      | 43.55 (1.715) | 41.35 (1.628) | 450            | 270             |
| 33       | 33FE-BT-VK-N   | 33FE-ST-VK-N    | 40.00 (1.575)      | 44.80 (1.764) | 42.60 (1.677) | 450            | 270             |
| 35       | 35FE-BT-VK-N   | 35FE-ST-VK-N    | 42.50 (1.673)      | 47.30 (1.862) | 45.10 (1.776) | 450            | 240             |

### Material and Finish

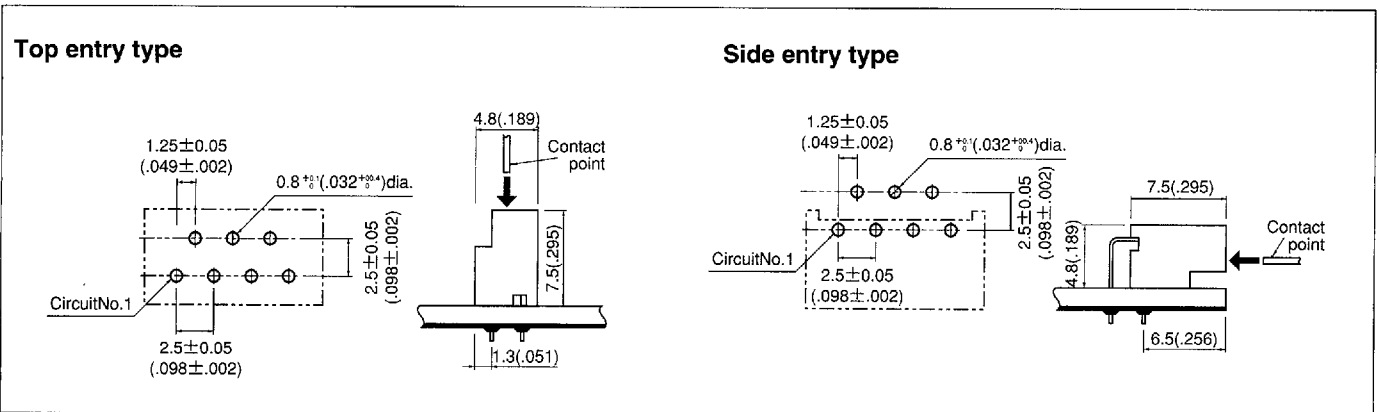
Contact: copper alloy, tin-plated (ulow-treatment)  
Housing: PBT, UL94V-0, natural (white)

# FE CONNECTOR

## Lead section dimensions of FFC and FPC

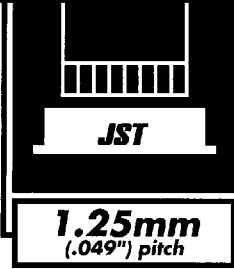


## PC board layout (viewed from component side) and Assembly layout



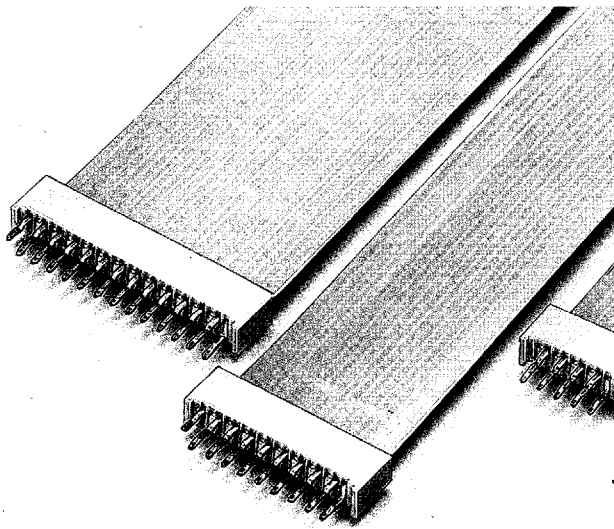
**Note:**

1. Tolerances are non-cumulative: ± 0.05mm (± .002") for all centers.
2. Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

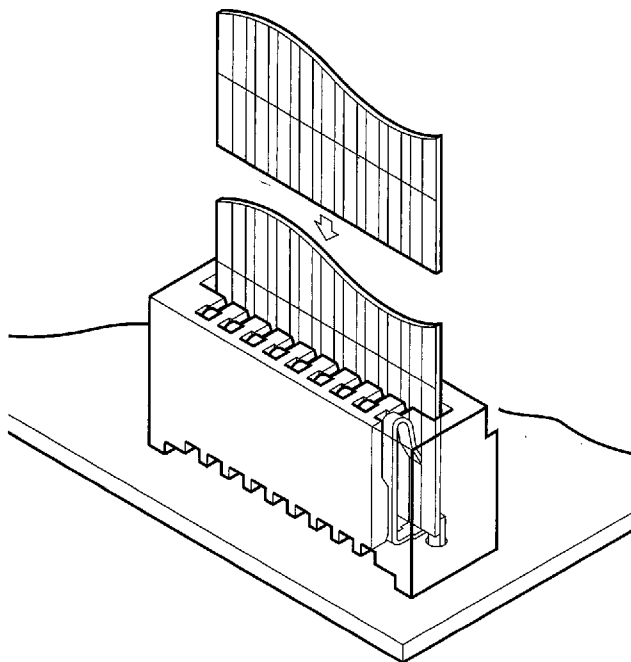


# FE CONNECTOR

Connectors for FFC and FPC



*The FE connector ensures easy, secure connection of flexible flat cables (FFC) and flexible printed circuits (FPC). This compact connector is 4.9mm (.193") wide, 7.5mm (.295") high, and provides high contact pressure even though little force is required for insertion. The result is smooth insertion and reliable contact performance. The connector is useful in making personal computers, VCRs and car stereo systems smaller and lighter.*



## Features

- **Low insertion force and high contact pressure**

The contact is made of phosphor bronze which has superior spring force. FFC and FPC leads can be inserted with little spring force, yet the contact pressure is high once they are inserted.

- **Snap-in connection**

FFC and FPC leads are secure after being gently inserted in the connector.

- **Temporary board retention feature**

The contact's solder dip section has a retention mechanism that allows the connector to be temporarily mounted on the printed circuit board and prevents the connector from floating when soldered.

- **Flux is not a problem**

The contact is processed to prevent flux from adhering to the bottom, thus helping ensure a proper connection.

## Specifications

- Current rating: 1.0A AC, DC
  - Voltage rating: 200V AC, DC
  - Temperature range:  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/20m  $\Omega$  max.  
After environmental testing/30m  $\Omega$  max.
  - Insulation resistance: 1,000M  $\Omega$  min.
  - Withstanding voltage: 500V AC/minute
  - Applicable FFC and FPC: Lead pitch/1.25mm(.049")  
Lead width/0.8mm(.031")  
Mating part thickness/  
 $0.3 \pm 0.05\text{mm}(.012" \pm .002)$
- < Note > These are reference values. FFC/FPC to be actually used should be checked for applicability.
- Applicable PC board thickness: 1.2 to 1.6mm(.047" to .063")
  - \* Contact JST for details.