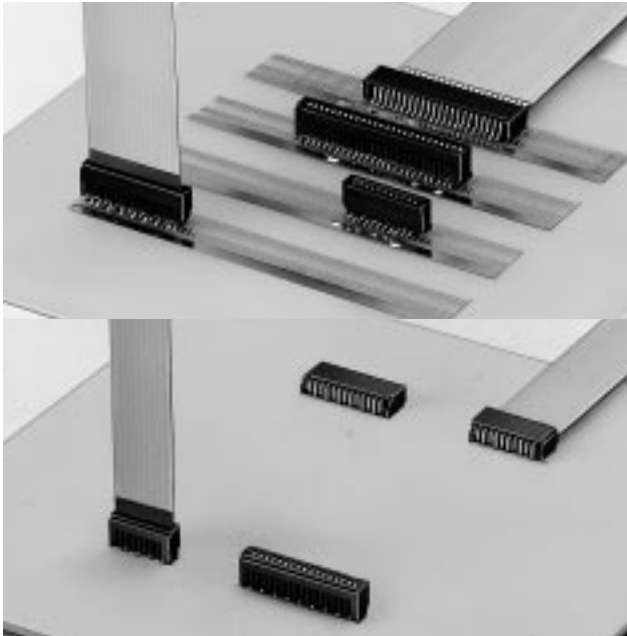


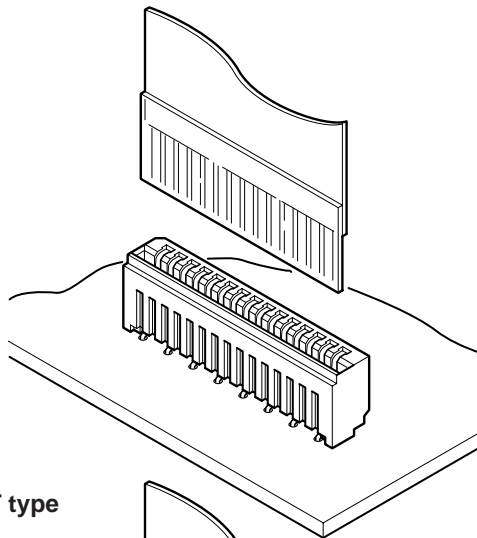
# FMN CONNECTOR



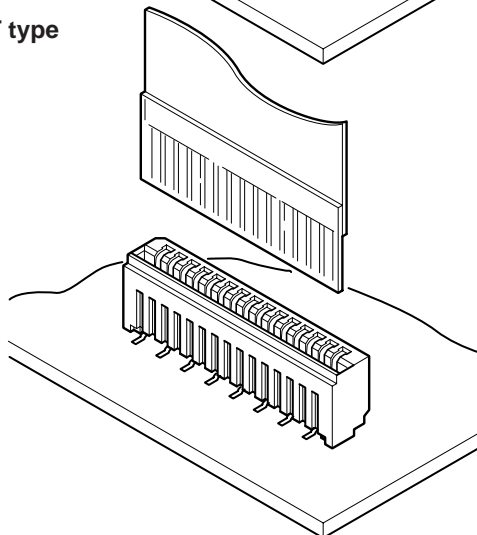
Connectors for FFC and FPC



Through-hole type



SMT type



## Features

- **Compact**

3.0mm(.118") high [side entry type] and 5.1mm(.201") [top entry type].

- **Low insertion force**

There are no slides or levers to operate on this recuded insertion force connector. It requires 1/2 the insertion force of JST's conventional FFC connector, but retains stable contact performance when subjected to environmental and mechanical stresses.

- **Both through-hole and SMT types are available**

SMT type connectors have heat-resistant housings so that solder reflow is possible. They also have solder tabs for extra strength.

- **Embossed tape for automatic mounting**

The SMT type FMN connector is supplied in embossed tape packaging, for mounting by automatic placemant machines.

## Specifications

- Current rating: 0.5A DC
  - Voltage rating: 50V DC
  - Temperature range: -25°C to +85°C  
(including temperature rise in applying electrical current)
  - Contact resistance: Initial value/30mΩ max.  
After environmental testing/50mΩ max.
  - Insulation resistance: 500MΩ min.
  - Withstanding voltage: 500V AC/minute
  - Applicable FFC: Lead pitch /1.0mm(.039")  
Note: Lead width /0.7mm(.028")  
Mating part thickness /  
0.30 ± 0.05mm(.012± .002)
  - Applicable PC board thickness: 1.6mm(.063")
- \* Contact JST for details.

## Standards

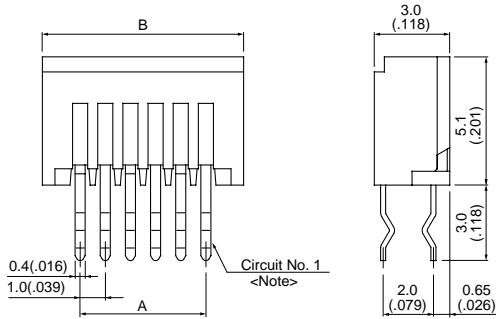
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Certified file No. LR20812

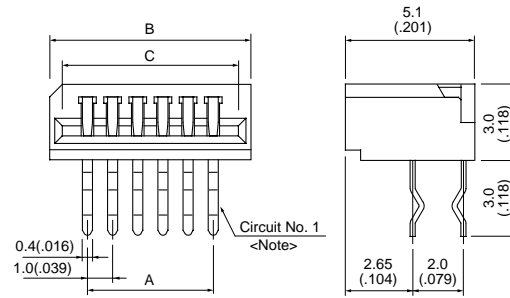
# FMN CONNECTOR

## Through-hole type Connector

Top entry type



Side entry type



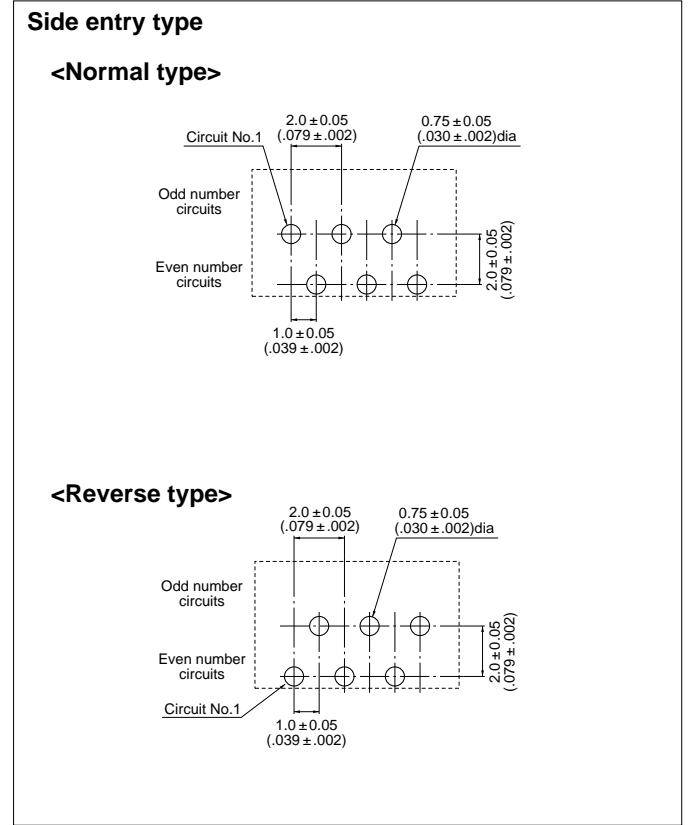
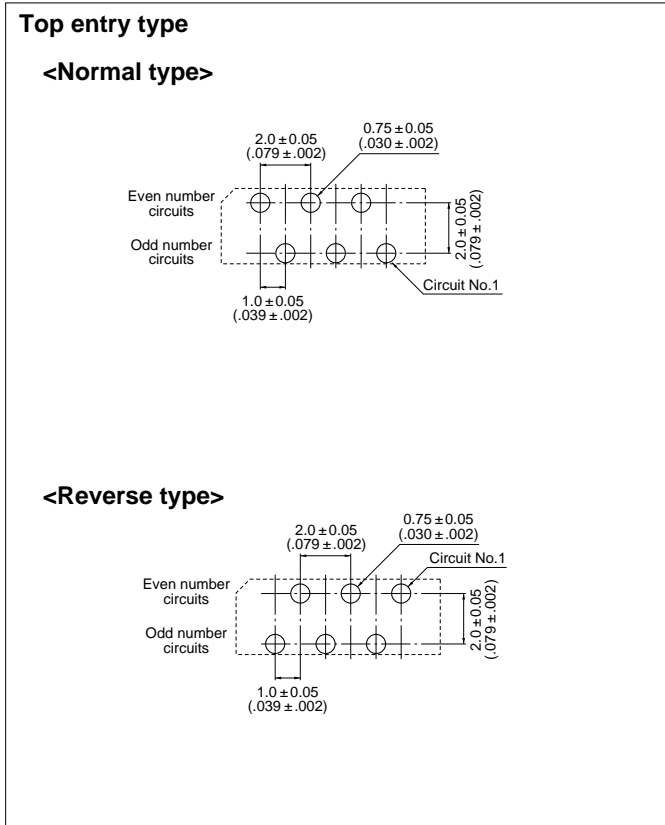
<Note> Normal type: The solder tail for circuit No.1 contact is positioned in front.  
Reverse type: The solder tail for circuit No.1 contact is positioned behind.

Circuits	Model No.				Dimensions mm(.in.)			Q'ty / box	
	Top entry type		Side entry type		A	B	C	Top entry type	Side entry type
	Normal type	Reverse type	Normal type	Reverse type					
4	04FMN-BTK	04FMN-BTRK	04FMN-STK	04FMN-STRK	3.0(.118)	6.0(.236)	5.0(.197)	3,600	2,160
5	05FMN-BTK	05FMN-BTRK	05FMN-STK	05FMN-STRK	4.0(.157)	7.0(.276)	6.0(.236)	3,100	1,860
6	06FMN-BTK	06FMN-BTRK	06FMN-STK	06FMN-STRK	5.0(.197)	8.0(.315)	7.0(.276)	2,700	1,620
7	07FMN-BTK	07FMN-BTRK	07FMN-STK	07FMN-STRK	6.0(.236)	9.0(.354)	8.0(.315)	2,400	1,440
8	08FMN-BTK	08FMN-BTRK	08FMN-STK	08FMN-STRK	7.0(.276)	10.0(.394)	9.0(.354)	2,100	1,260
9	09FMN-BTK	09FMN-BTRK	09FMN-STK	09FMN-STRK	8.0(.315)	11.0(.433)	10.0(.394)	1,900	1,140
10	10FMN-BTK	10FMN-BTRK	10FMN-STK	10FMN-STRK	9.0(.354)	12.0(.472)	11.0(.433)	1,800	1,080
11	11FMN-BTK	11FMN-BTRK	11FMN-STK	11FMN-STRK	10.0(.394)	13.0(.512)	12.0(.472)	1,600	960
12	12FMN-BTK	12FMN-BTRK	12FMN-STK	12FMN-STRK	11.0(.433)	14.0(.551)	13.0(.512)	1,500	900
13	13FMN-BTK	13FMN-BTRK	13FMN-STK	13FMN-STRK	12.0(.472)	15.0(.591)	14.0(.551)	1,400	840
14	14FMN-BTK	14FMN-BTRK	14FMN-STK	14FMN-STRK	13.0(.512)	16.0(.630)	15.0(.591)	1,300	780
15	15FMN-BTK	15FMN-BTRK	15FMN-STK	15FMN-STRK	14.0(.551)	17.0(.669)	16.0(.630)	1,200	720
16	16FMN-BTK	16FMN-BTRK	16FMN-STK	16FMN-STRK	15.0(.591)	18.0(.709)	17.0(.669)	1,200	720
17	17FMN-BTK	17FMN-BTRK	17FMN-STK	17FMN-STRK	16.0(.630)	19.0(.748)	18.0(.709)	1,100	660
18	18FMN-BTK	18FMN-BTRK	18FMN-STK	18FMN-STRK	17.0(.669)	20.0(.787)	19.0(.748)	1,000	600
19	19FMN-BTK	19FMN-BTRK	19FMN-STK	19FMN-STRK	18.0(.709)	21.0(.827)	20.0(.787)	1,000	600
20	20FMN-BTK	20FMN-BTRK	20FMN-STK	20FMN-STRK	19.0(.748)	22.0(.866)	21.0(.827)	900	540
21	21FMN-BTK	21FMN-BTRK	21FMN-STK	21FMN-STRK	20.0(.787)	23.0(.906)	22.0(.866)	900	540
22	22FMN-BTK	22FMN-BTRK	22FMN-STK	22FMN-STRK	21.0(.827)	24.0(.945)	23.0(.906)	900	540
23	23FMN-BTK	23FMN-BTRK	23FMN-STK	23FMN-STRK	22.0(.866)	25.0(.984)	24.0(.945)	800	480
24	24FMN-BTK	24FMN-BTRK	24FMN-STK	24FMN-STRK	23.0(.906)	26.0(1.024)	25.0(.984)	800	480
25	25FMN-BTK	25FMN-BTRK	25FMN-STK	25FMN-STRK	24.0(.945)	27.0(1.063)	26.0(1.024)	800	480
26	26FMN-BTK	26FMN-BTRK	26FMN-STK	26FMN-STRK	25.0(.984)	28.0(1.102)	27.0(1.063)	700	420
27	27FMN-BTK	27FMN-BTRK	27FMN-STK	27FMN-STRK	26.0(1.024)	29.0(1.142)	28.0(1.102)	700	420
28	28FMN-BTK	28FMN-BTRK	28FMN-STK	28FMN-STRK	27.0(1.063)	30.0(1.181)	29.0(1.142)	700	420
29	29FMN-BTK	29FMN-BTRK	29FMN-STK	29FMN-STRK	28.0(1.102)	31.0(1.220)	30.0(1.181)	700	420
30	30FMN-BTK	30FMN-BTRK	30FMN-STK	30FMN-STRK	29.0(1.142)	32.0(1.260)	31.0(1.220)	600	360
31	31FMN-BTK	31FMN-BTRK	31FMN-STK	31FMN-STRK	30.0(1.181)	33.0(1.299)	32.0(1.260)	600	360
32	32FMN-BTK	32FMN-BTRK	32FMN-STK	32FMN-STRK	31.0(1.220)	34.0(1.339)	33.0(1.299)	600	360
33	33FMN-BTK	33FMN-BTRK	33FMN-STK	33FMN-STRK	32.0(1.260)	35.0(1.378)	34.0(1.339)	600	360
34	34FMN-BTK	34FMN-BTRK	34FMN-STK	34FMN-STRK	33.0(1.299)	36.0(1.417)	35.0(1.378)	600	360
35	35FMN-BTK	35FMN-BTRK	35FMN-STK	35FMN-STRK	34.0(1.339)	37.0(1.457)	36.0(1.417)	500	300
36	36FMN-BTK	36FMN-BTRK	36FMN-STK	36FMN-STRK	35.0(1.378)	38.0(1.496)	37.0(1.457)	500	300
37	37FMN-BTK	37FMN-BTRK	37FMN-STK	37FMN-STRK	36.0(1.417)	39.0(1.535)	38.0(1.496)	500	300
38	38FMN-BTK	38FMN-BTRK	38FMN-STK	38FMN-STRK	37.0(1.457)	40.0(1.575)	39.0(1.535)	500	300
39	39FMN-BTK	39FMN-BTRK	39FMN-STK	39FMN-STRK	38.0(1.496)	41.0(1.614)	40.0(1.575)	500	300
40	40FMN-BTK	40FMN-BTRK	40FMN-STK	40FMN-STRK	39.0(1.535)	42.0(1.654)	41.0(1.614)	500	300

### Material and Finish

Contact: Phosphor bronze, copper-undercoated, tin/lead-plated  
Housing: 4 to 22 circuits/PBT, UL94V-0  
23 to 40 circuits/Modified 6T nylon, UL94V-0  
Normal type---Gray Reverse type---Black

## Through-hole type PC board layout (viewed from component side)



**Note:**

1. Tolerances are non-cumulative:  $\pm 0.05\text{mm} (\pm .002")$  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.

## Through-hole type Assembly layout

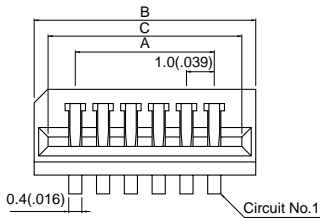


# FMN CONNECTOR

## SMT type Connector

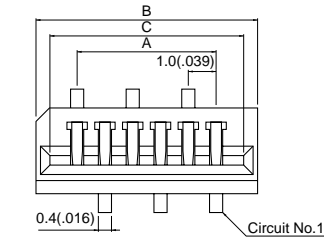
### Top entry type

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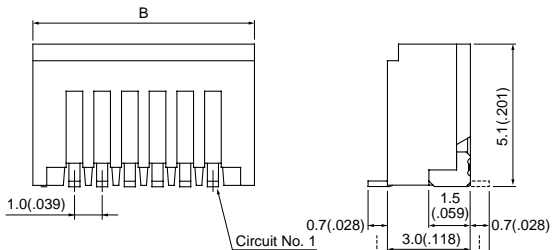
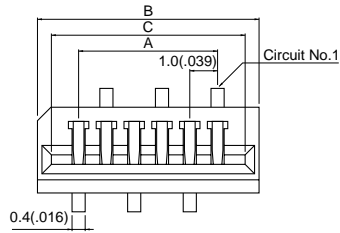
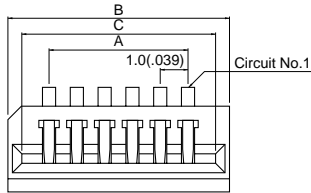


← Normal type →

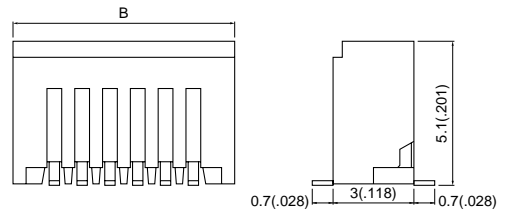
#### <Staggered>



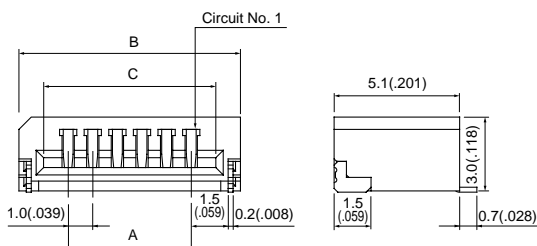
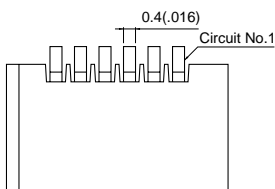
← Reverse type →



Normal type      Reverse type



### Side entry type



# FMN CONNECTOR

Cir- cuits	Model No.					Dimensions mm(in.)				Q'ty / reel	
	Top entry type				Side entry type	A	B		C	Top entry type	Side entry type
	Single-row		Staggered				Top entry type	Side entry type			
	Normal type	Reverse type	Normal type	Reverse type							
4	04FMN-BMT-TF	04FMN-BMTR-TB	04FMN-BMTTN-TF	04FMN-BMTTR-TB	-	3.0( .118)	6.0( .236)	-	5.0( .197)	1,000	-
5	05FMN-BMT-TF	05FMN-BMTR-TB	05FMN-BMTTN-TF	05FMN-BMTTR-TB	-	4.0( .157)	7.0( .276)	-	6.0( .236)	1,000	-
6	06FMN-BMT-TF	06FMN-BMTR-TB	06FMN-BMTTN-TF	06FMN-BMTTR-TB	-	5.0( .197)	8.0( .315)	-	7.0( .276)	1,000	-
7	07FMN-BMT-TF	07FMN-BMTR-TB	07FMN-BMTTN-TF	07FMN-BMTTR-TB	-	6.0( .236)	9.0( .354)	-	8.0( .315)	1,000	-
8	08FMN-BMT-TF	08FMN-BMTR-TB	08FMN-BMTTN-TF	08FMN-BMTTR-TB	-	7.0( .276)	10.0( .394)	-	9.0( .354)	1,000	-
9	09FMN-BMT-TF	09FMN-BMTR-TB	09FMN-BMTTN-TF	09FMN-BMTTR-TB	-	8.0( .315)	11.0( .433)	-	10.0( .394)	1,000	-
10	10FMN-BMT-TF	10FMN-BMTR-TB	10FMN-BMTTN-TF	10FMN-BMTTR-TB	-	9.0( .354)	12.0( .472)	-	11.0( .433)	1,000	-
11	11FMN-BMT-TF	11FMN-BMTR-TB	11FMN-BMTTN-TF	11FMN-BMTTR-TB	-	10.0( .394)	13.0( .512)	-	12.0( .472)	1,000	-
12	12FMN-BMT-TF	12FMN-BMTR-TB	12FMN-BMTTN-TF	12FMN-BMTTR-TB	-	11.0( .433)	14.0( .551)	-	13.0( .512)	1,000	-
13	13FMN-BMT-TF	13FMN-BMTR-TB	13FMN-BMTTN-TF	13FMN-BMTTR-TB	-	12.0( .472)	15.0( .591)	-	14.0( .551)	1,000	-
14	14FMN-BMT-TF	14FMN-BMTR-TB	14FMN-BMTTN-TF	14FMN-BMTTR-TB	-	13.0( .512)	16.0( .630)	-	15.0( .591)	1,000	-
15	15FMN-BMT-TF	15FMN-BMTR-TB	15FMN-BMTTN-TF	15FMN-BMTTR-TB	-	14.0( .551)	17.0( .669)	-	16.0( .630)	1,000	-
16	16FMN-BMT-TF	16FMN-BMTR-TB	16FMN-BMTTN-TF	16FMN-BMTTR-TB	-	15.0( .591)	18.0( .709)	-	17.0( .669)	1,000	-
17	17FMN-BMT-TF	17FMN-BMTR-TB	17FMN-BMTTN-TF	17FMN-BMTTR-TB	-	16.0( .630)	19.0( .748)	-	18.0( .709)	1,000	-
18	18FMN-BMT-TF	18FMN-BMTR-TB	18FMN-BMTTN-TF	18FMN-BMTTR-TB	-	17.0( .669)	20.0( .787)	-	19.0( .748)	1,000	-
19	19FMN-BMT-TF	19FMN-BMTR-TB	19FMN-BMTTN-TF	19FMN-BMTTR-TB	-	18.0( .709)	21.0( .827)	-	20.0( .787)	1,000	-
20	20FMN-BMT-TF	20FMN-BMTR-TB	20FMN-BMTTN-TF	20FMN-BMTTR-TB	-	19.0( .748)	22.0( .866)	-	21.0( .827)	1,000	-
21	21FMN-BMT-TF	21FMN-BMTR-TB	21FMN-BMTTN-TF	21FMN-BMTTR-TB	-	20.0( .787)	23.0( .906)	-	22.0( .866)	1,000	-
22	22FMN-BMT-TF	22FMN-BMTR-TB	22FMN-BMTTN-TF	22FMN-BMTTR-TB	22FMN-SMT-TF	21.0( .827)	24.0( .945)	25.0( .984)	23.0( .906)	1,000	2,000
23	23FMN-BMT-TF	23FMN-BMTR-TB	23FMN-BMTTN-TF	23FMN-BMTTR-TB	-	22.0( .866)	25.0( .984)	-	24.0( .945)	1,000	-
24	24FMN-BMT-TF	24FMN-BMTR-TB	24FMN-BMTTN-TF	24FMN-BMTTR-TB	24FMN-SMT-TF	23.0( .906)	26.0(1.024)	27.0(1.063)	25.0( .984)	1,000	2,000
25	25FMN-BMT-TF	25FMN-BMTR-TB	25FMN-BMTTN-TF	25FMN-BMTTR-TB	-	24.0( .945)	27.0(1.063)	-	26.0(1.024)	1,000	-
26	26FMN-BMT-TF	26FMN-BMTR-TB	26FMN-BMTTN-TF	26FMN-BMTTR-TB	-	25.0( .984)	28.0(1.102)	-	27.0(1.063)	1,000	-
27	27FMN-BMT-TF	27FMN-BMTR-TB	27FMN-BMTTN-TF	27FMN-BMTTR-TB	-	26.0(1.024)	29.0(1.142)	-	28.0(1.102)	1,000	-
28	28FMN-BMT-TF	28FMN-BMTR-TB	28FMN-BMTTN-TF	28FMN-BMTTR-TB	-	27.0(1.063)	30.0(1.181)	-	29.0(1.142)	1,000	-
29	29FMN-BMT-TF	29FMN-BMTR-TB	29FMN-BMTTN-TF	29FMN-BMTTR-TB	-	28.0(1.102)	31.0(1.220)	-	30.0(1.181)	1,000	-
30	30FMN-BMT-TF	30FMN-BMTR-TB	30FMN-BMTTN-TF	30FMN-BMTTR-TB	-	29.0(1.142)	32.0(1.260)	-	31.0(1.220)	1,000	-
31	31FMN-BMT-TF	31FMN-BMTR-TB	31FMN-BMTTN-TF	31FMN-BMTTR-TB	-	30.0(1.181)	33.0(1.299)	-	32.0(1.260)	1,000	-
32	32FMN-BMT-TF	32FMN-BMTR-TB	32FMN-BMTTN-TF	32FMN-BMTTR-TB	-	31.0(1.220)	34.0(1.339)	-	33.0(1.299)	1,000	-
33	33FMN-BMT-TF	33FMN-BMTR-TB	33FMN-BMTTN-TF	33FMN-BMTTR-TB	-	32.0(1.260)	35.0(1.378)	-	34.0(1.339)	1,000	-
34	34FMN-BMT-TF	34FMN-BMTR-TB	34FMN-BMTTN-TF	34FMN-BMTTR-TB	-	33.0(1.299)	36.0(1.417)	-	35.0(1.378)	1,000	-
35	35FMN-BMT-TF	35FMN-BMTR-TB	35FMN-BMTTN-TF	35FMN-BMTTR-TB	-	34.0(1.339)	37.0(1.457)	-	36.0(1.417)	1,000	-
36	36FMN-BMT-TF	36FMN-BMTR-TB	36FMN-BMTTN-TF	36FMN-BMTTR-TB	-	35.0(1.378)	38.0(1.496)	-	37.0(1.457)	1,000	-
37	37FMN-BMT-TF	37FMN-BMTR-TB	37FMN-BMTTN-TF	37FMN-BMTTR-TB	-	36.0(1.417)	39.0(1.535)	-	38.0(1.496)	1,000	-
38	38FMN-BMT-TF	38FMN-BMTR-TB	38FMN-BMTTN-TF	38FMN-BMTTR-TB	-	37.0(1.457)	40.0(1.575)	-	39.0(1.535)	1,000	-
39	39FMN-BMT-TF	39FMN-BMTR-TB	39FMN-BMTTN-TF	39FMN-BMTTR-TB	-	38.0(1.496)	41.0(1.614)	-	40.0(1.575)	1,000	-
40	40FMN-BMT-TF	40FMN-BMTR-TB	40FMN-BMTTN-TF	40FMN-BMTTR-TB	-	39.0(1.535)	42.0(1.654)	-	41.0(1.614)	1,000	-

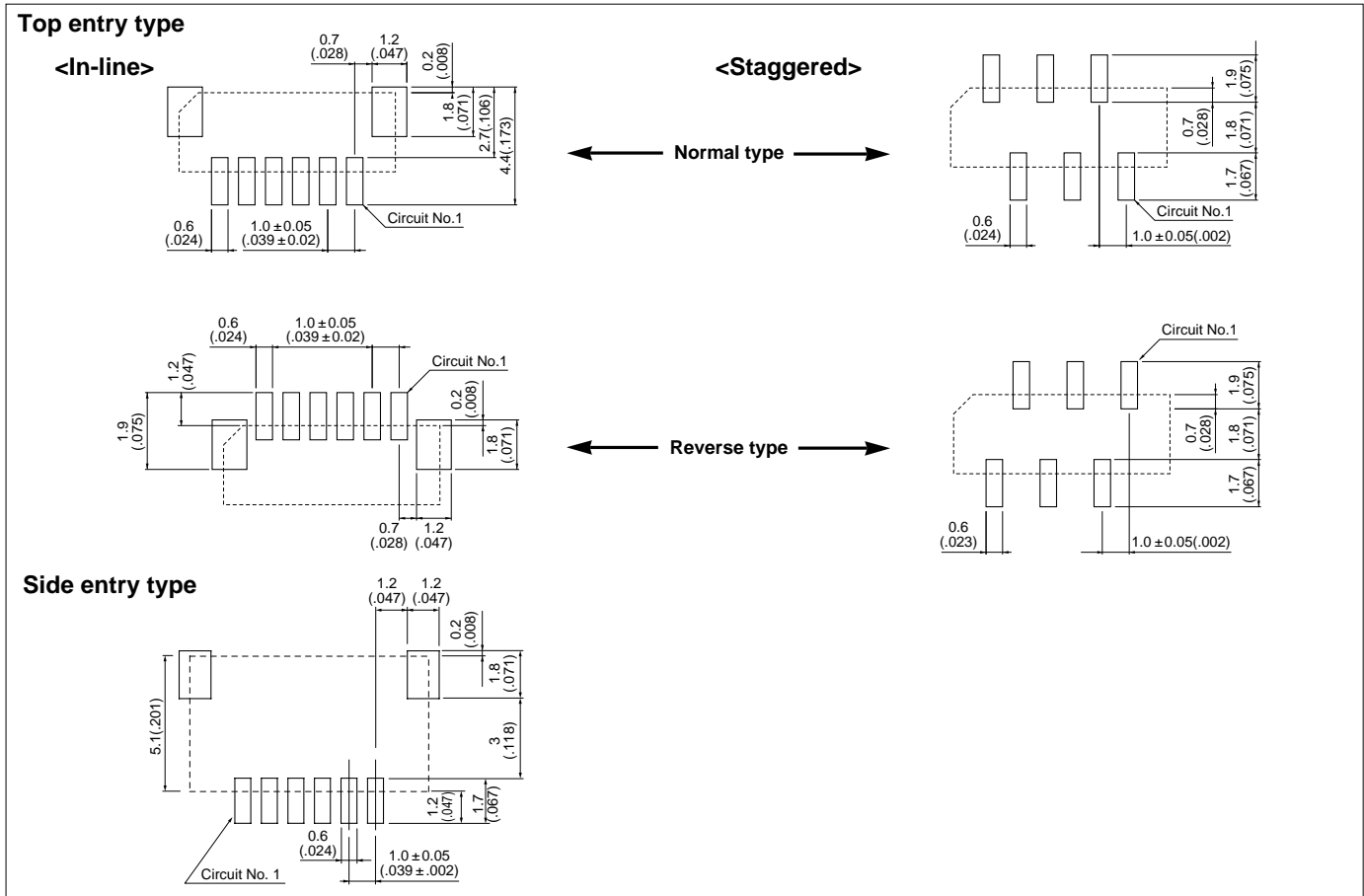
## Material and Finish

Contact: Phosphor bronze, copper-undercoated, tin/lead-plated  
Housing: Modified 6T nylon, UL94V-0, black  
Solder tab: Brass, copper-undercoated, tin/lead plated

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

# FMN CONNECTOR

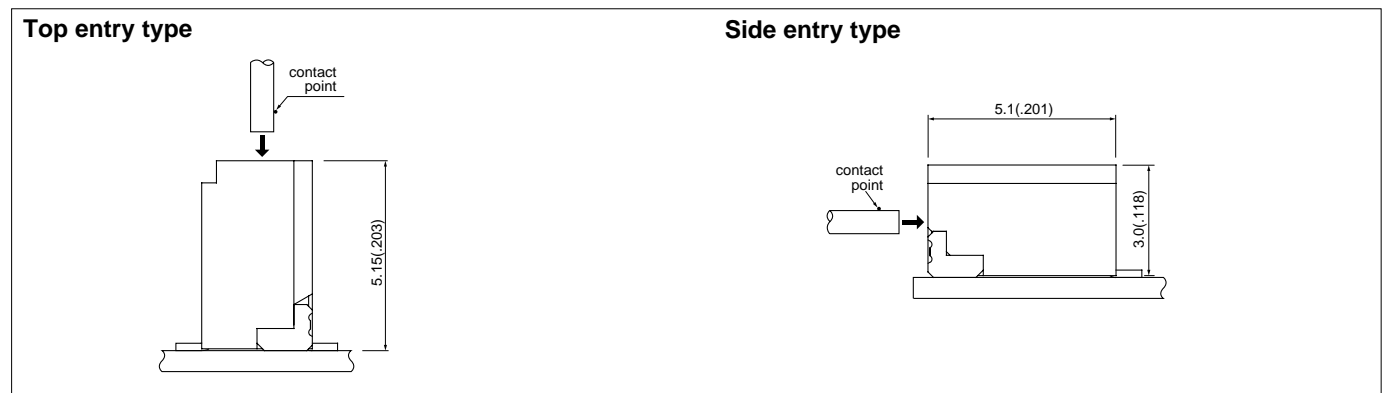
## SMT type PC board layout (viewed from component side)



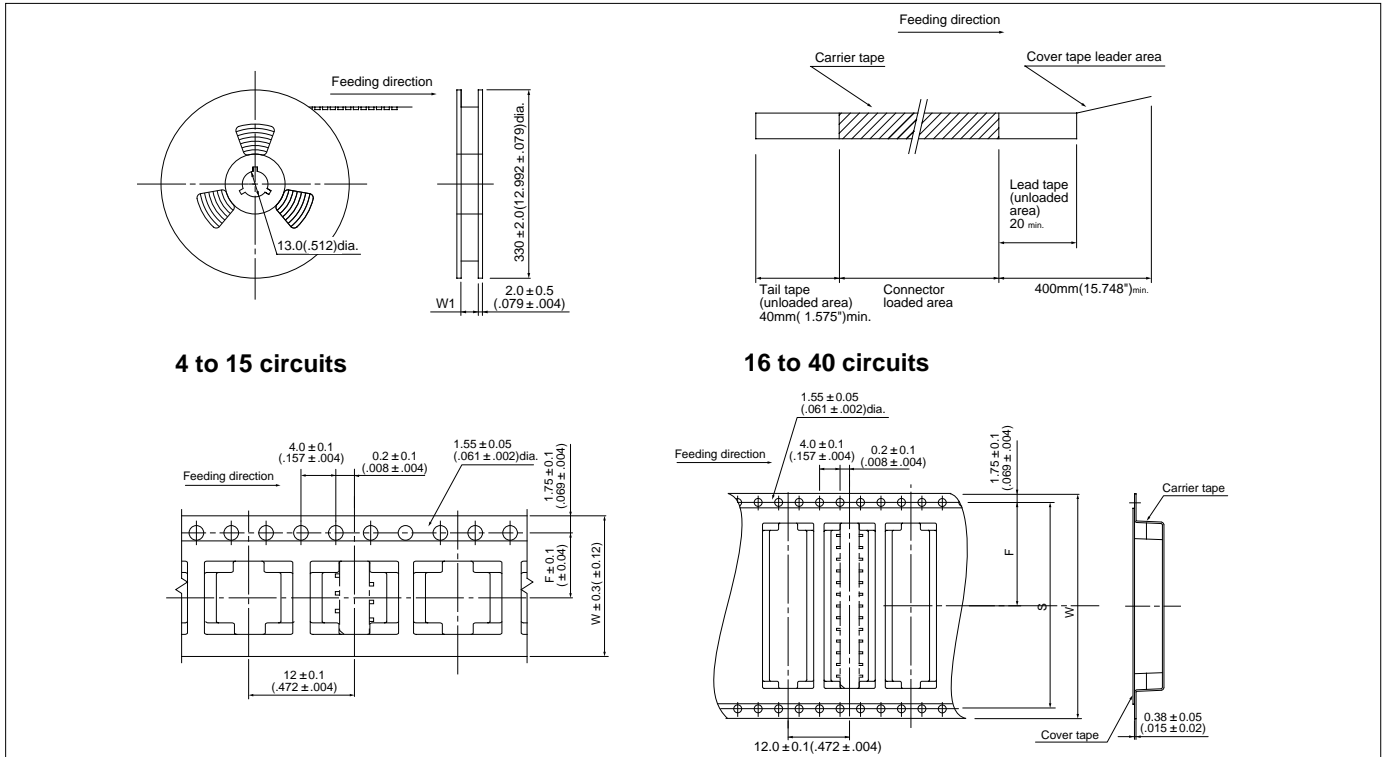
Note:

1. Tolerances are non-cumulative:  $\pm 0.05\text{mm} (\pm .002")$  for all centers.
2. The dimensions above should serve as a guideline. Contact JST for details.

## SMT type Assembly layout (viewed from component side)



## Taping specifications



### Top entry type

Circuits	Taping dimensions mm(in.)				Q'ty / reel
	F	S	W	W1	
4 to 7	7.5( .295)	-	16.0( .630)	17.5( .689)	1,000
8 to 15	11.5( .453)	-	24.0( .945)	25.5(1.004)	1,000
16 to 19	14.2( .559)	28.4(1.118)	32.0(1.260)	33.5(1.319)	1,000
20 to 31	20.2( .795)	40.4(1.591)	44.0(1.732)	45.5(1.791)	1,000
32 to 40	26.2(1.031)	52.4(2.063)	56.0(2.205)	57.5(2.264)	1,000

### Side entry type

Circuits	Taping dimensions mm(in.)				Q'ty / reel
	F	S	W	W1	
22	20.2(.795)	40.4(1.591)	44.0(1.732)	45.5(1.791)	2,000
24	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.

## Lead section dimensions of FFC

