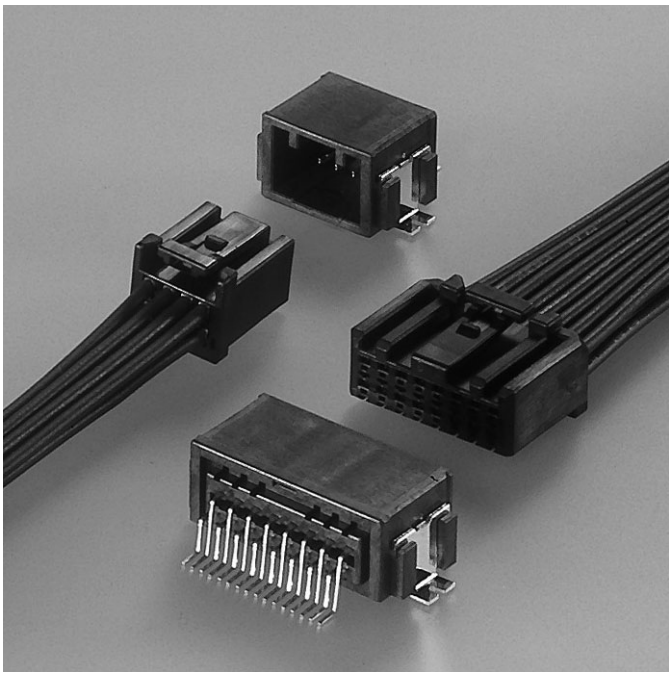
CPT CONNECTOR

Board-to-wire

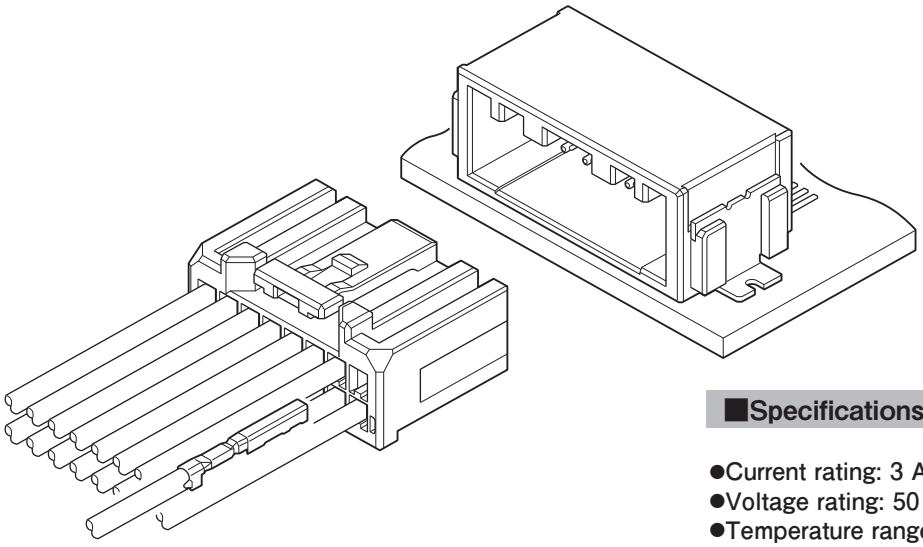


The CPT connector was developed with a focus on achieving a compact, low-profile design for automotive wire-to-board connections.
This surface-mount connector defies conventional concepts by incorporating a spring structure into the male terminal.

■Features

●Compact design
The 2.0 mm pitch enables a compact, low-profile design ideal for automotive connectors.

●Terminal structure
By incorporating a spring mechanism into the male connector, the female connector has been designed with a simple box-type structure.

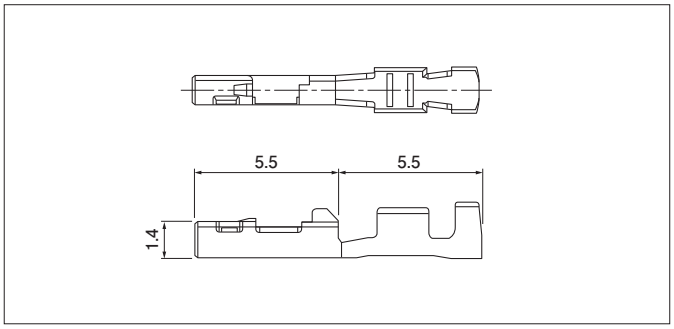


■Specifications

●Current rating: 3 A AC/DC (0.3 mm^2, Single circuit)
●Voltage rating: 50 V AC/DC
●Temperature range: –40 °C to +100 °C
(including temperature rise in applying electrical current)
●Contact resistance: Initial value/ 8 mΩ max.
After environmental tests/ 16 mΩ max.
●Insulation resistance: 100 MΩ min.
●Withstanding voltage: 1,000 V AC/minute
●Applicable wire: AESSX-f/ AVSS
0.3 mm^2

* Compliant with ELV/RoHS2.
* Contact JST for details.

Female terminal



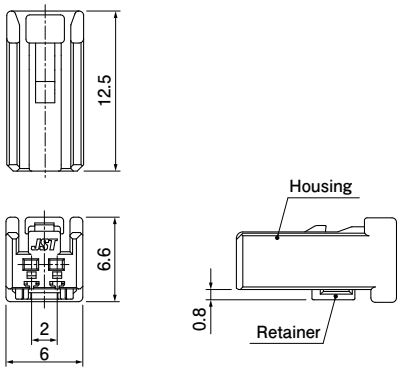
Model No.	Applicable wire range		Q'ty/reel
	Conductor (mm^2)	Insulation O.D. (mm)	
SCPT-A021GF-0.5	0.3	1.4	15,000

Material and Surface finish, etc.
Brass, nickel-undercoated, Contact area: gold-plated Barrel area: tin-plated

Female connector

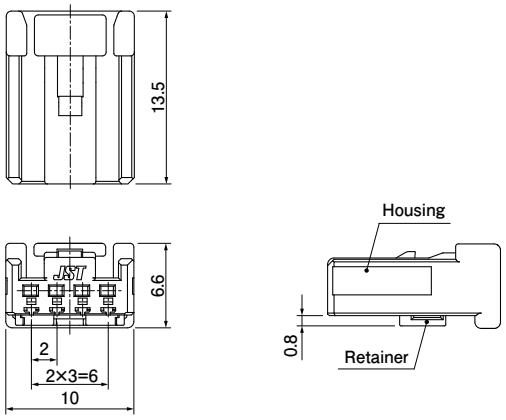
Single row

●2 circuits

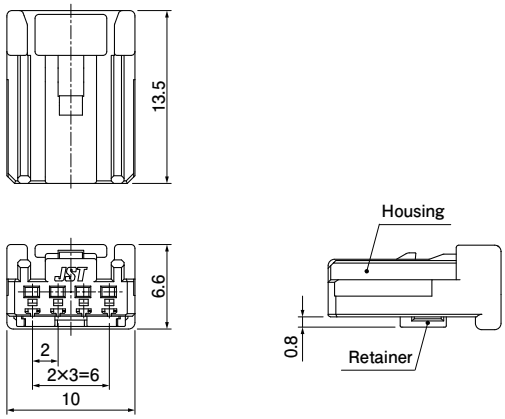


●4 circuits

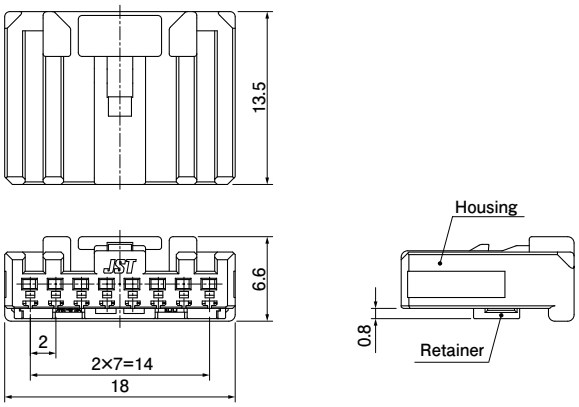
04CPT-B1-2A



04CPT-B1-2B



●8 circuits



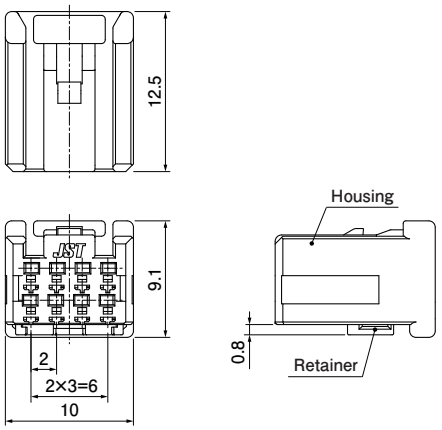
No. of circuits	Model No.	Q'ty/box
2	02CPT-B-2A	500
4	04CPT-B1-2A	600
	04CPT-B1-2B	
8	08CPT-B1-2A	400

Material and Surface finish, etc.
Housing: Glass-filled PBT, Black Retainer: Glass-filled PBT, Blue

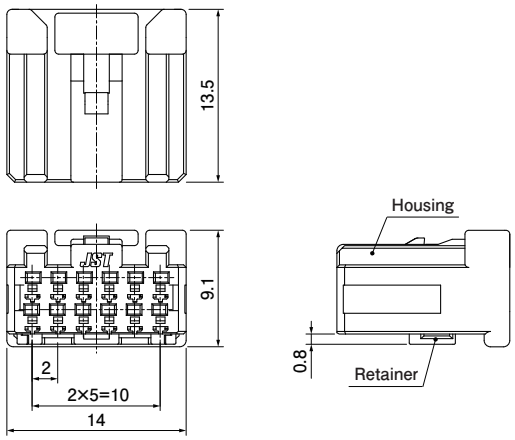
Female connector

Dual row

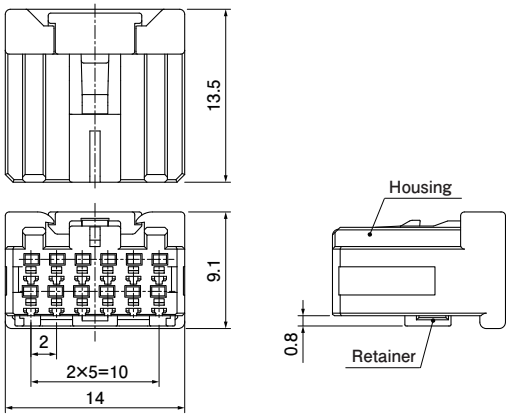
●8 circuits



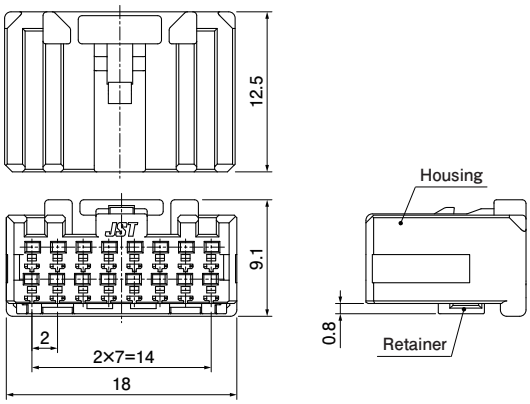
●12 circuits
12CPT-B-2A



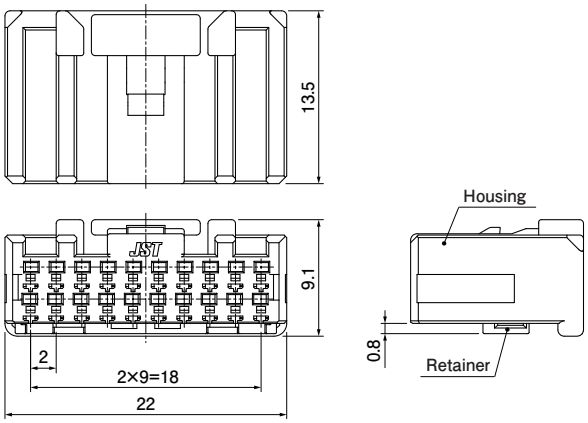
●12 circuits
12CPT-B-2A-FL



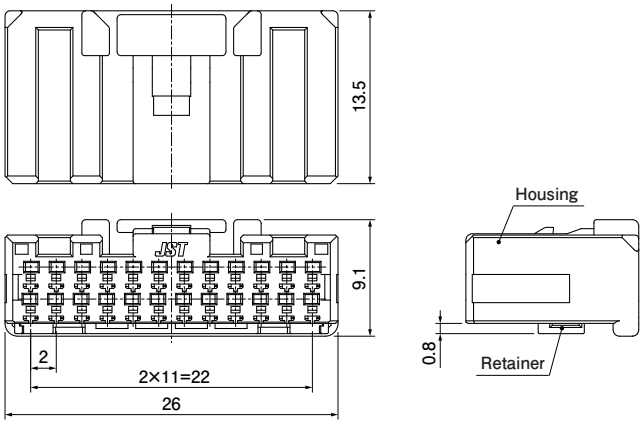
●16 circuits



●20 circuits



●24 circuits



No. of circuits	Model No.	Q'ty/box
8	**08CPT-B-2A**	500
12	**12CPT-B-2A**	300
	12CPT-B-2A-FL	
16	**16CPT-B-2A**	250
20	**20CPT-B-2A**	250
24	**24CPT-B-2A**	200

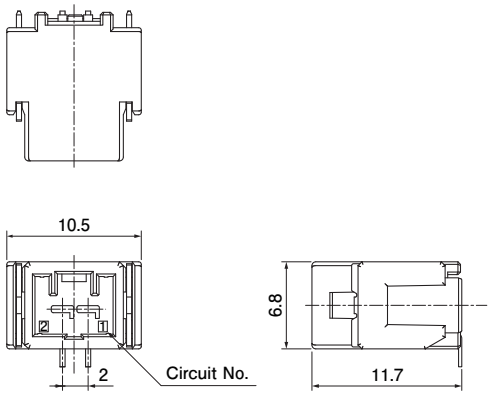
Material and Surface finish, etc.
Housing: Glass-filled PBT, Black Retainer: Glass-filled PBT, Blue

Male connector

Top entry type

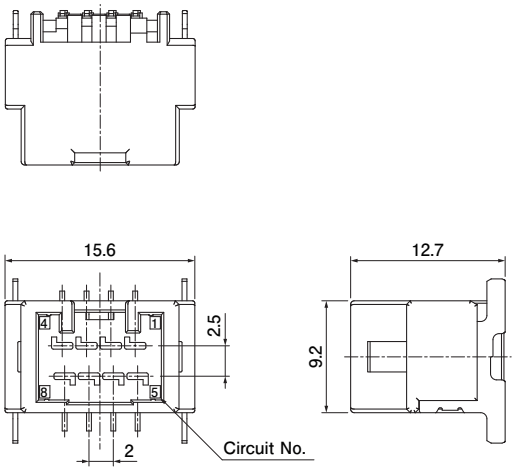
Single row

●2 circuits

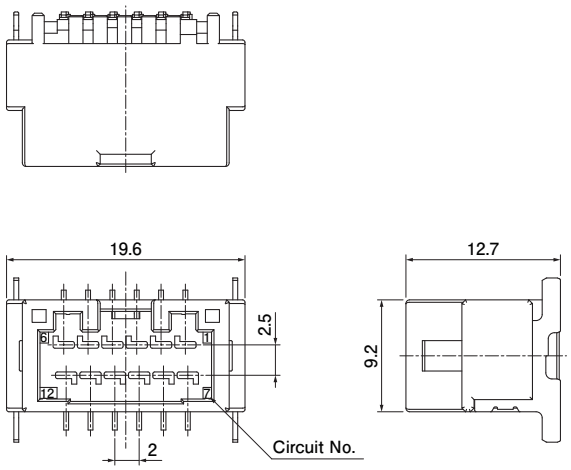


Dual row

●8 circuits



●12 circuits



Type		No. of circuits	Model No.	Q'ty/reel	Packaging style
Top	Single row	2	BM02B-CPTK-1A-TB	370	With suction cap
			BM02B-CPTK-3A-TB	320	Without suction cap
	Dual row	8	BM08B-CPTK-1A-TB	240	With suction cap
			BM08B-CPTK-3A-TB		Without suction cap
		12	BM12B-CPTK-1A-TB		With suction cap

Material and Surface finish, etc.
Terminal: Copper alloy, nickel-undercoated, Contact area: gold-plated Solder tail: tin-plated (reflow treatment) Housing: Glass-filled LCP, Black Peg: Brass, nickel-undercoated, tin-plated (reflow treatment)

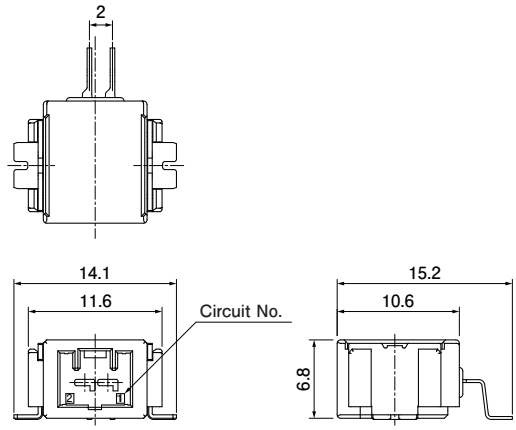
Note: The suction cap is supplementary packaging material that should be removed after installation.

Male connector

Side entry type

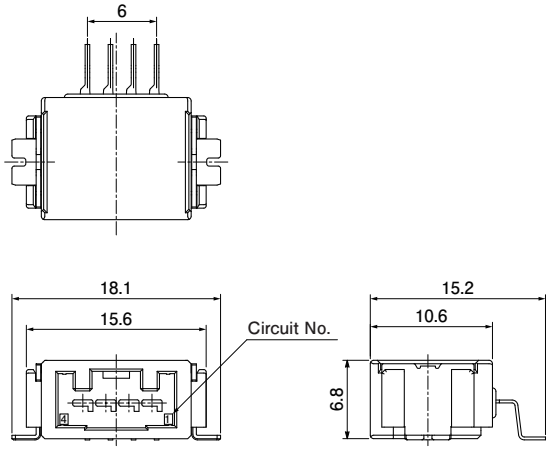
Single row

●2circuits

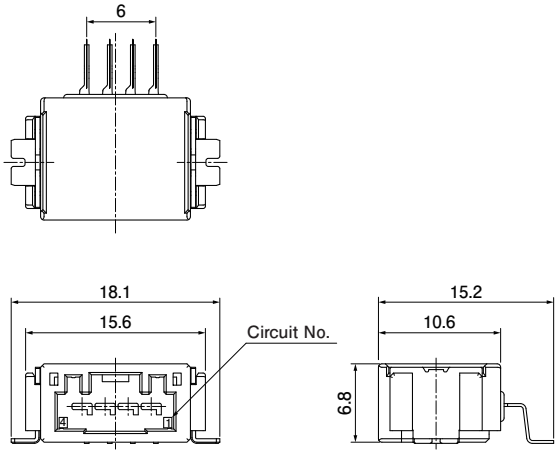


●4 circuits

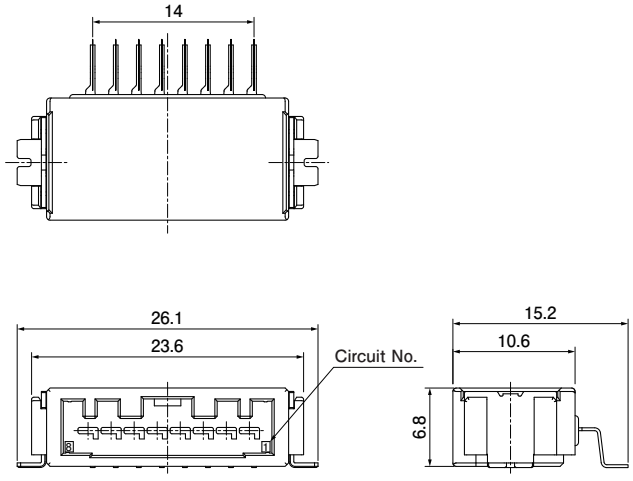
SM04B1-CPTK-1A-TB



SM04B1-CPTK-1B-TB



●8 circuits



Type		No. of circuits	Model No.	Q'ty/reel
Side	Single row	2	SM02B-CPTK-1A-TB	500
		4	SM04B1-CPTK-1A-TB	
			SM04B1-CPTK-1B-TB	
		8	SM08B1-CPTK-1A-TB	

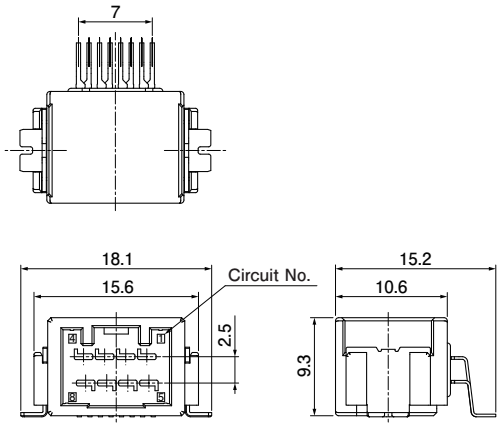
Material and Surface finish, etc.
Terminal: Copper alloy, nickel-undercoated, Contact area: gold-plated Solder tail: tin-plated (reflow treatment)
Housing: Glass-filled LCP, Black
Peg: Brass, nickel-undercoated, tin-plated (reflow treatment)

Male connector

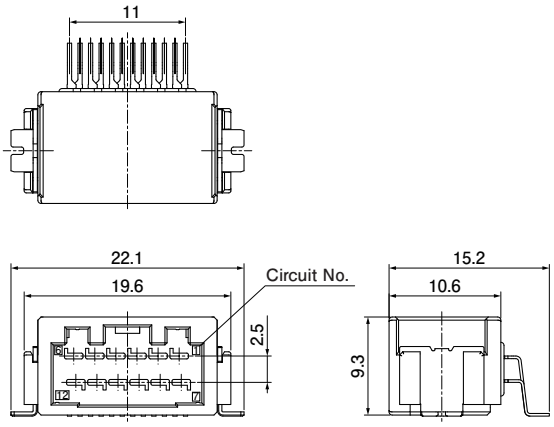
Side entry type

Dual row

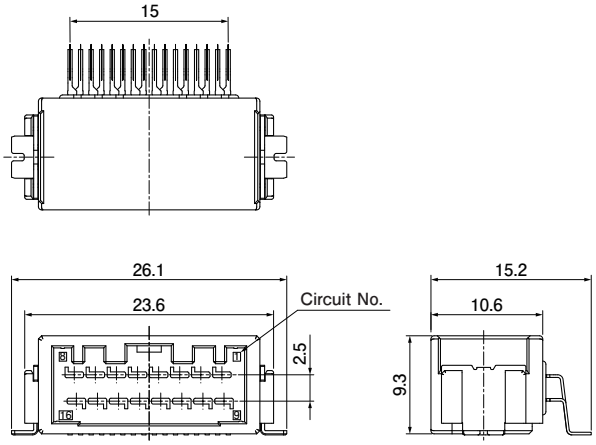
●8 circuits



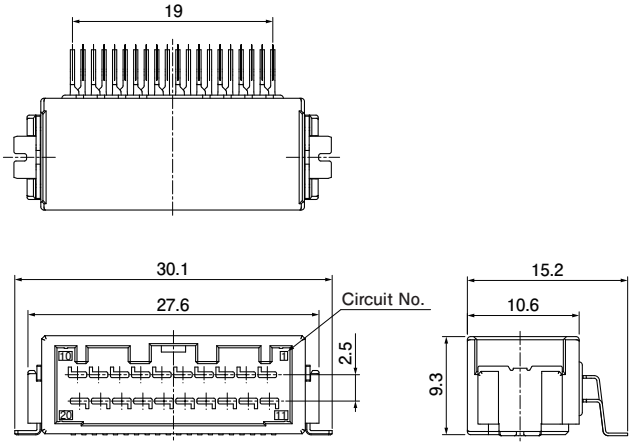
●12 circuits



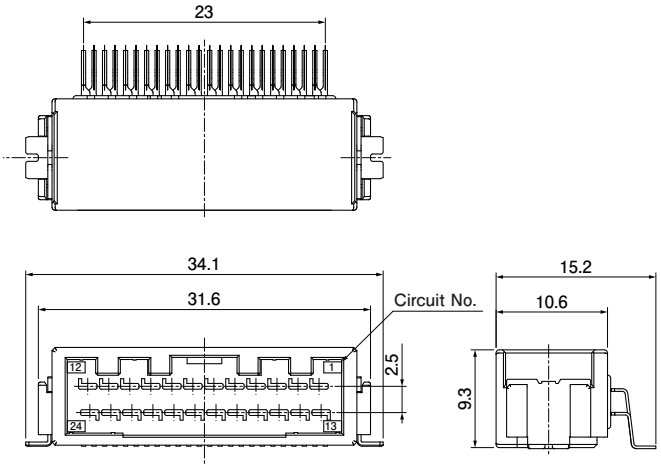
●16 circuits



●20 circuits



●24 circuits



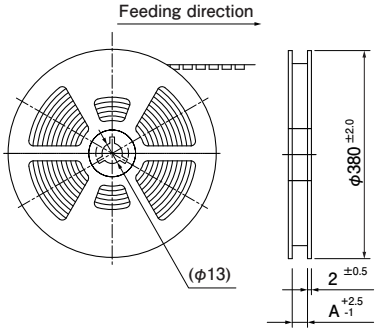
Type		No. of circuits	Model No.	Q'ty/reel
Side	Dual row	8	SM08B-CPTK-1A-TB	390
		12	SM12B-CPTK-1A-TB	
		16	SM16B-CPTK-1A-TB	
		20	SM20B-CPTK-1A-TB	
		24	SM24B-CPTK-1A-TB	

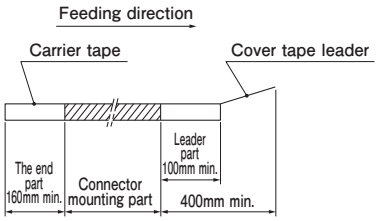
Material and Surface finish, etc.
Terminal: Copper alloy, nickel-undercoated, Contact area: gold-plated Solder tail: tin-plated (reflow treatment)
Housing: Glass-filled LCP, Black
Peg: Brass, nickel-undercoated, tin-plated (reflow treatment)

Taping Dimensions

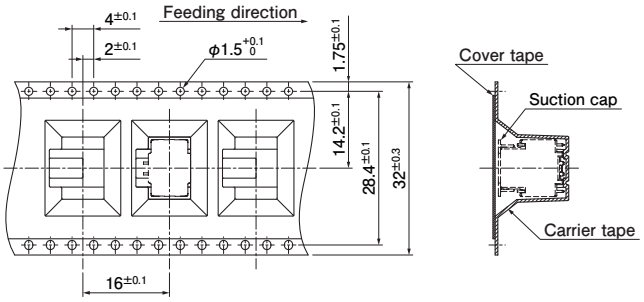
Top entry type

●2, 8, 12 circuits (With suction cap)
2, 8 circuits (Without suction cap)

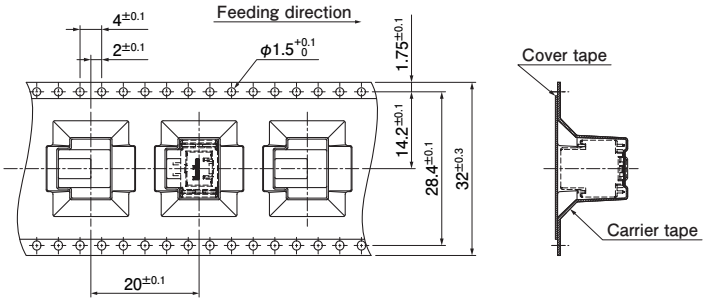




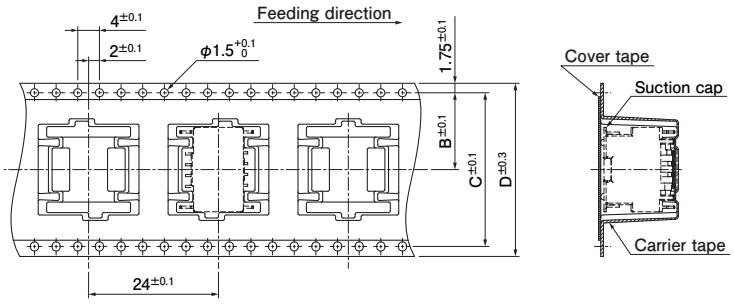
●2 circuits (With suction cap)



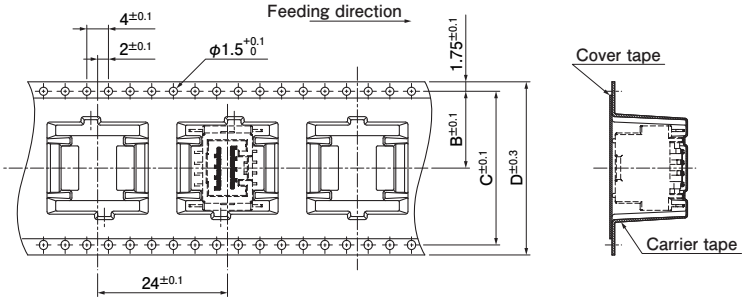
●2 circuits (Without suction cap)



●8, 12 circuits (With suction cap)



●8 circuits (Without suction cap)

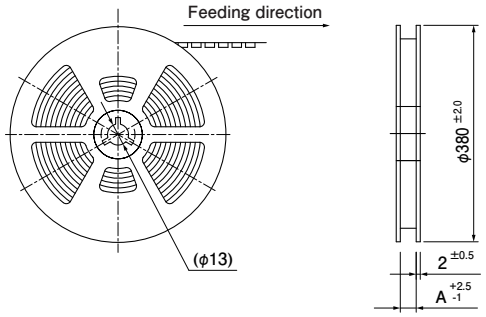


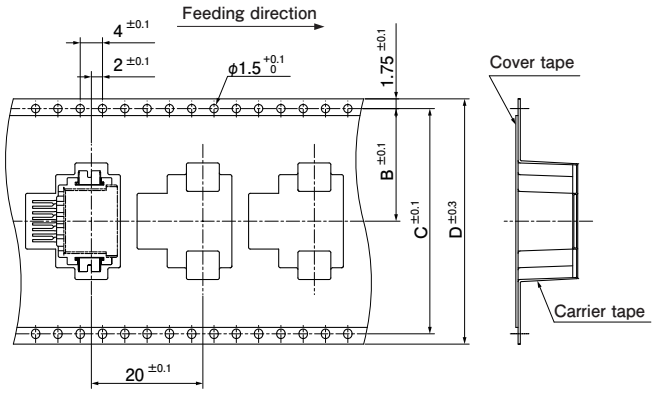
Type	No. of circuits	A	B	C	D
Single row	2	33.5	—	—	—
Dual row	8	33.5	14.2	28.4	32
	12	45.5	20.2	40.4	44

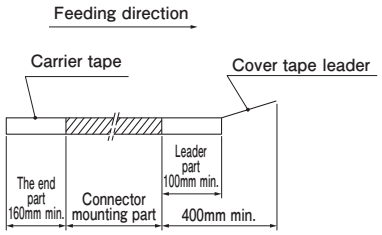
Taping Dimensions

Side entry type

●2, 4, 8, 12, 16, 20, 24 circuits







Type	No. of circuits	A	B	C	D
Single row	2	33.5	14.2	28.4	32
	4	33.5	14.2	28.4	32
	8	45.5	20.2	40.4	44
Dual row	8	45.5	20.2	40.4	44
	12	45.5	20.2	40.4	44
	16	45.5	20.2	40.4	44
	20	45.5	20.2	40.4	44
	24	57.5	26.2	52.4	56

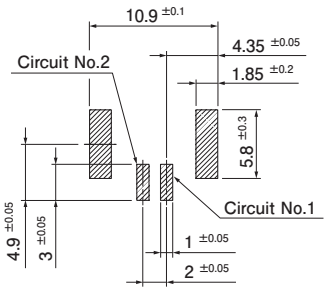
PC board layout and Assembly layout

Top entry type

PC board layout

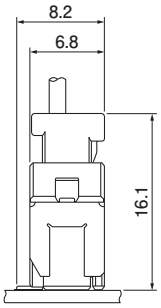
Single row

●2 circuits



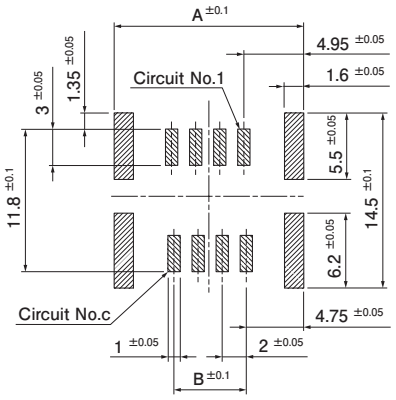
Assembly layout

●2 circuits



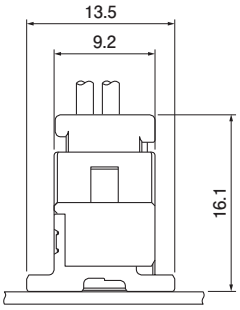
Dual row

●8,12 circuits

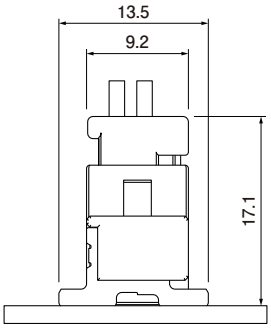


No. of circuits	A	B
8	15.7	6
12	19.7	10

●8 circuits



●12 circuits



Note: 1. Tolerance for the PCB pattern pitch shall be ±0.05 and shall not accumulate.
2. The above dimensions are for reference only. Please contact JST for further details.

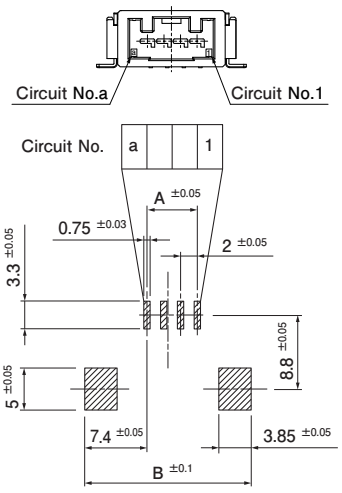
PC board layout and Assembly layout

Side entry type

PC board layout

Single row

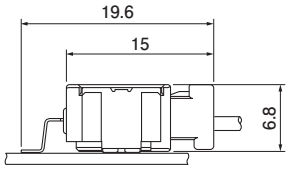
●2, 4, 8 (Single) circuits



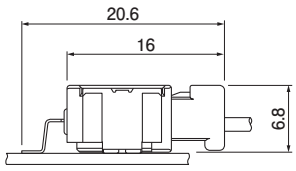
No. of circuits	A	B
2	2	15.8
4	6	19.8
8 (Single)	14	27.8

Assembly layout

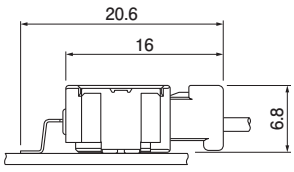
●2 circuits



●4 circuits

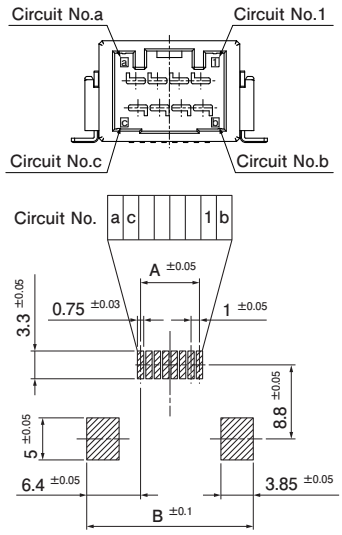


●8 (Single) circuits



Dual row

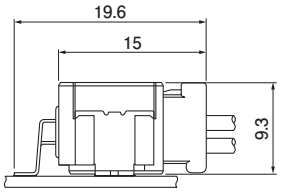
●8 (Dual), 12, 16, 20, 24 circuits



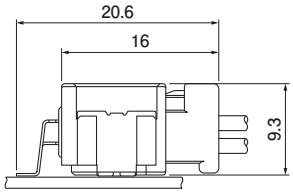
No. of circuits	A	B
8 (Dual)	7	19.8
12	11	23.8
16	15	27.8
20	19	31.8
24	23	35.8

Assembly layout

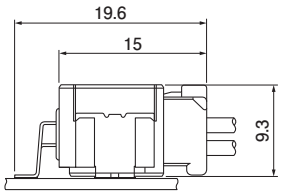
●8 (Dual) circuits



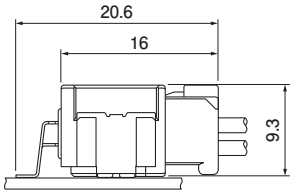
●12 circuits



●16 circuits



●20, 24 circuits



Note: 1. Tolerance for the PCB pattern pitch shall be ±0.05 and shall not accumulate.
2. The above dimensions are for reference only. Please contact JST for further details.

Crimping machine, Applicator

Strip terminal	Crimping machine	Crimp applicator MKS-L	
		Dies	Crimp applicator with dies
SCPT-A021GF-0.5	AP-K2N	MK/SCPT-A021-05	APLMK SCPT-A021-05

Note: When crimping operation is conducted using an applicator and die set other than the above, JST cannot guarantee the performance of the terminal.