JST

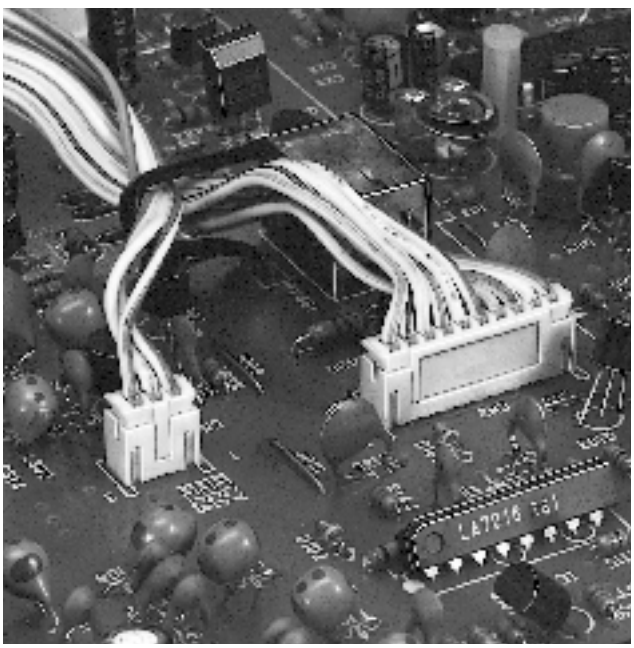
Crimp

2.0mm
(.079") pitch

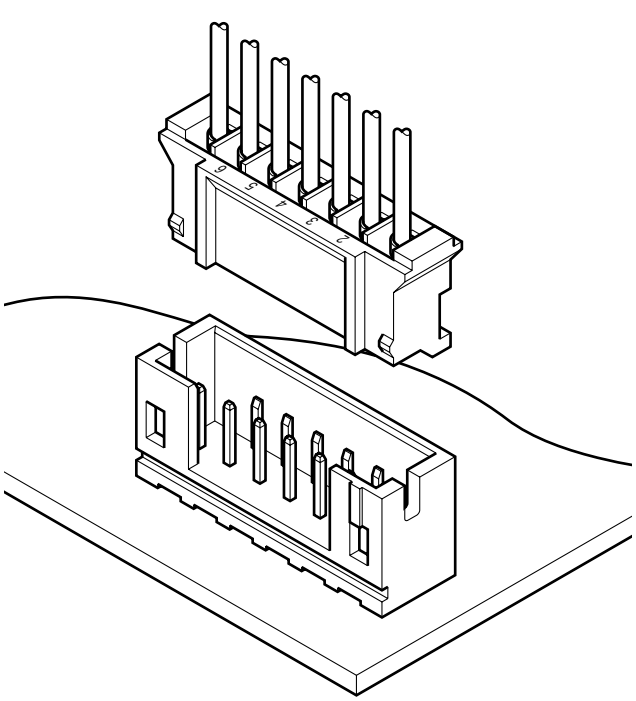
PH CONNECTOR

Emboss Tape

Disconnectable Crimp style connectors



This is a thin, low-profile 2.0mm (.079") pitch connector 7.5mm (.295") in height after mounting and 4.5mm (.177") in width. It is designed to meet the demand for high-density connection of internal wires to printed circuit boards. It is compact, highly reliable and low in cost.



Features

• Reliable contact

The contact has long dimples near the center to ensure a good connection at all times, even under conditions of vibration and mechanical abuse, and when used with low voltage and low current circuits.

• Easy and effective crimping

Although the contact is compact, it has a long wire strip holding length of 2.6 +/- 0.4mm (.102" +/-.016"). This long length simplifies automatic crimping and the crimping of shielded wires.

• Fully shrouded header

The fully shrouded header has walls on all four sides to prevent improper connection to the mating housing and to prevent the instruction of flux and other contaminants.

• High solderable square post

The square post is copper-undercoated and tin/lead-plated for superior solderability and for whisker prevention.

• Printed circuit board retention mechanism

The solder side of the header has a retention mechanism that prevents it from floating during soldering. As a result, the header can be positioned accurately.

• Compatible with the KR insulation displacement connector

The same shrouded header can be used for either PH crimp-style connector or KR insulation displacement connector. This allows both types of connector to be used interchangeably without replacing the header.

• Surface mount model (SMT)

This connector is also available in a surface mount configuration. Its housing is made of heat resistant resin so that it is not adversely affected during reflow soldering. Because of its tiny size and ability to be surface mounted, this connector meets the demand for high-density mounting of components inside electronic products.

Specifications

- Current rating: 2.0A AC, DC (AWG #24)
- Voltage rating: 100V AC, DC
- Temperature range: -25˚C to +85˚C
  (including temperature rise in applying electrical current)
- Contact resistance: Initial value/10m Ω max.
  After environmental testing/20m Ω max.
- Insulation resistance: 1,000M Ω min.
- Withstanding voltage: 800V AC/minute
- Applicable wire: AWG #32 to #24
- Applicable PC board thickness: 0.8 to 1.6mm(.031" to .063")

* Contact JST for details

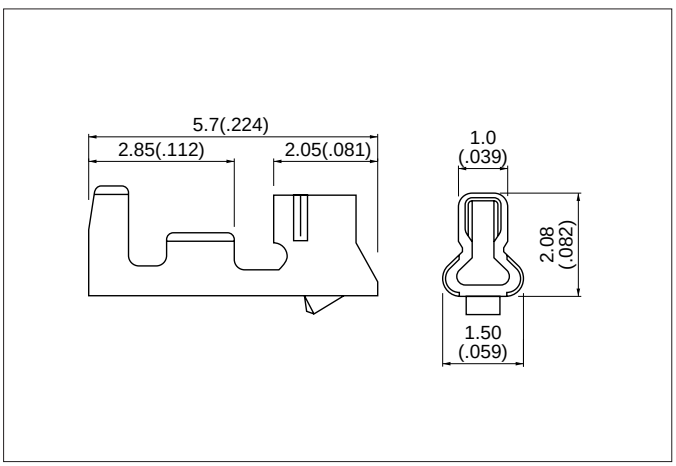
Standards

Recognized file No. E60389

Certified file No. LR20812

File No. R75087 (conforms to DIN/VDE 0627)

Contact

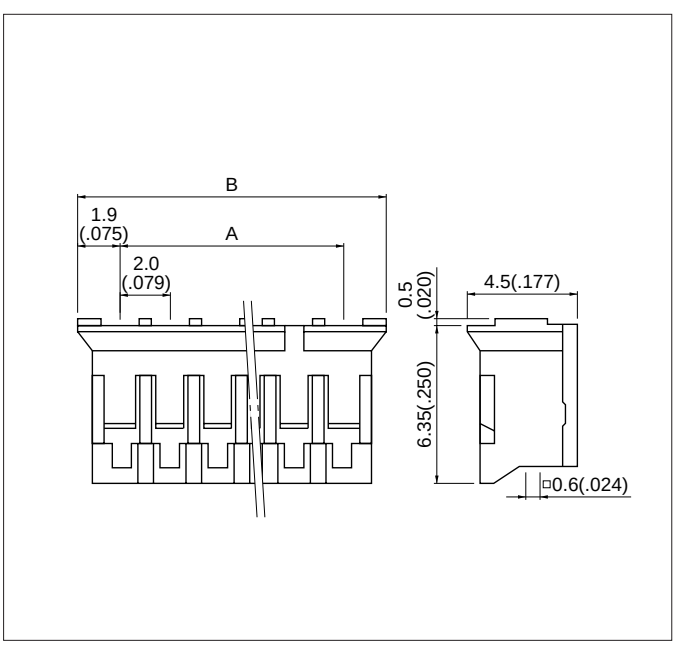


Model No.	Applicable wire			Q´ty / reel
	mm²	AWG #	Insulation O.D.mm(in.)	
SPH-002T-P0.5S	0.05 to 0.22	30 to 24	0.9 to 1.5(.035 to .059)	8,000
SPH-004T-P0.5S	0.032 to 0.08	32 to 28	0.5 to 0.9(.020 to .035)	10.000

Material and Finish
Phosphor bronze, Tin-plated

Note: SPH-004T-P0.5S is not TÜV approved.

Housing



Cir-cuits	Model No.	Dimensions mm(in.)		Q´ty / box
		A	B	
2	**PHR- 2**	2.0(.079)	5.8(.228)	1,000
3	**PHR- 3**	4.0(.157)	7.8(.307)	1,000
4	**PHR- 4**	6.0(.236)	9.8(.386)	1,000
5	**PHR- 5**	8.0(.315)	11.8(.465)	1,000
6	**PHR- 6**	10.0(.394)	13.8(.543)	1,000
7	**PHR- 7**	12.0(.472)	15.8(.622)	1,000
8	**PHR- 8**	14.0(.551)	17.8(.701)	1,000
9	**PHR- 9**	16.0(.630)	19.8(.780)	1,000
10	**PHR-10**	18.0(.709)	21.8(.858)	1,000
11	**PHR-11**	20.0(.787)	23.8(.937)	1,000
12	**PHR-12**	22.0(.866)	25.8(1.016)	1,000
13	**PHR-13**	24.0(.945)	27.8(1.094)	1,000
14	**PHR-14**	26.0(1.024)	29.8(1.173)	1,000
15	**PHR-15**	28.0(1.102)	31.8(1.252)	1,000
16	**PHR-16**	30.0(1.181)	33.8(1.331)	1,000

Material and Finish
Nylon 66, UL94V-0, natural (white)

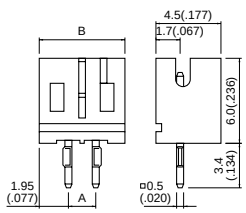
Note: PHR-16 is not TÜV approved.

Through-hole type shrouded header

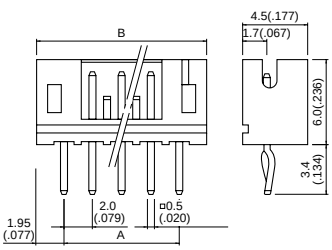
The shrouded headers are interchangeable with those of the KR, KRD and CR insulation displacement connectors (see pages 139, 141 & 137)

Top entry type

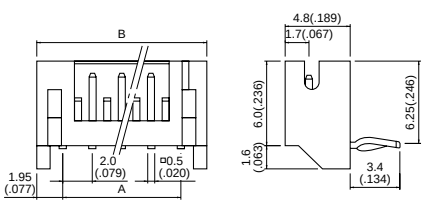
(2 circuits)



(3 circuits or more)



Side entry type



Cir-cuits	Model No.		Dimensions mm(in.)		Q´ty / box	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	**B 2B-PH-K**	**S 2B-PH-K**	2.0(.079)	5.9(.232)	1,000	1,000
3	**B 3B-PH-K**	**S 3B-PH-K**	4.0(.157)	7.9(.311)	1,000	1,000
4	**B 4B-PH-K**	**S 4B-PH-K**	6.0(.236)	9.9(.390)	1,000	500
5	**B 5B-PH-K**	**S 5B-PH-K**	8.0(.315)	11.9(.469)	1,000	500
6	**B 6B-PH-K**	**S 6B-PH-K**	10.0(.394)	13.9(.547)	1,000	500
7	**B 7B-PH-K**	**S 7B-PH-K**	12.0(.472)	15.9(.626)	500	500
8	**B 8B-PH-K**	**S 8B-PH-K**	14.0(.551)	17.9(.705)	500	250
9	**B 9B-PH-K**	**S 9B-PH-K**	16.0(.630)	19.9(.783)	500	250
10	**B10B-PH-K**	**S10B-PH-K**	18.0(.709)	21.9(.862)	500	250
11	**B11B-PH-K**	**S11B-PH-K**	20.0(.787)	23.9(.941)	500	250
12	**B12B-PH-K**	**S12B-PH-K**	22.0(.866)	25.9(1.020)	500	250
13	**B13B-PH-K**	**S13B-PH-K**	24.0(.945)	27.9(1.098)	250	250
14	**B14B-PH-K**	**S14B-PH-K**	26.0(1.024)	29.9(1.177)	250	250
15	**B15B-PH-K**	**S15B-PH-K**	28.0(1.102)	31.9(1.256)	250	200
16	**B16B-PH-K**	**S16B-PH-K**	30.9(1.181)	33.9(1.335)	250	200

Material and Finish
Post: Brass, copper-undercoated, tin/lead-plated Wafer: Nylon 66, UL94V-0, ivory

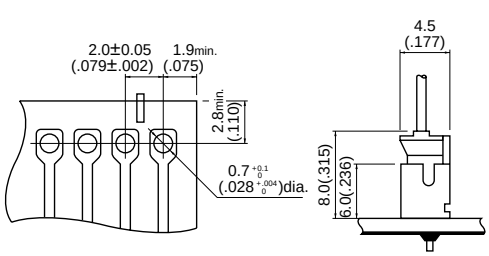
Note:

1.When ordering a natural-colored (white) shrouded header, please specify a model number with suffix "S" (Example: B3B-PH-K-S).

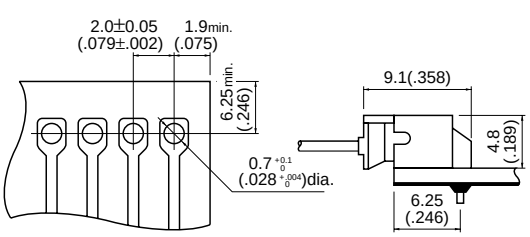
2.16-circuit headers are not TÜV approved.

Through-hole type PC board layout (viewed from soldering side) and Assembly layout

Top entry type



Side entry type



Note:

1. Tolerances are non-cumulative ±0.05mm(±.002") for all centers.

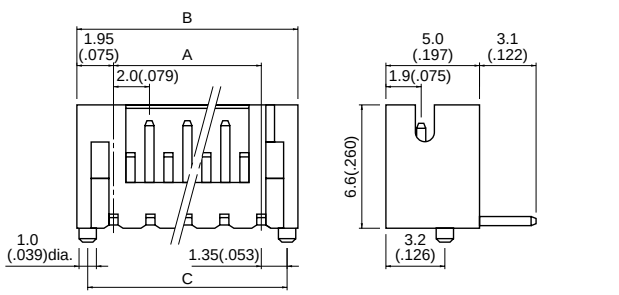
2. Hole dimensions differ according to the kind of printed circuit board and piercing method. If printed circuit boards made of hard material such as FR-4 are used, the hole dimensions should be larger. The hole dimensions shown above are reference values. Contact JST for details.

SMT type shrouded header

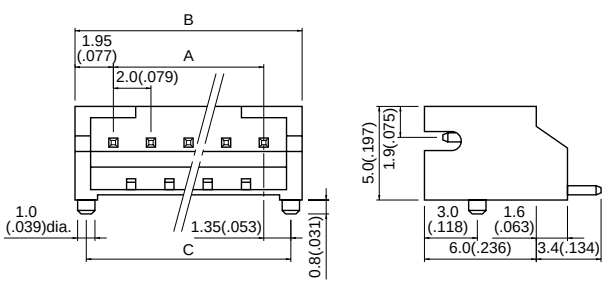
•The shrouded headers are interchangeable with those of the KR, KRD and CR insulation displacement connectors (see pages 139, 141 & 137).
•SMT type shrouded headers are not TÜV approved.

SM type

Top entry type



Side entry type

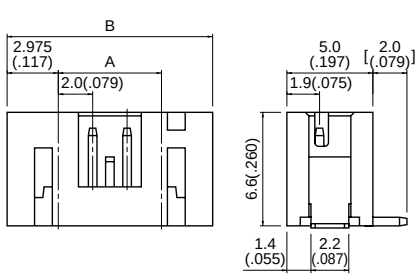


Circuits	Model No. Top entry type	Model No. Side entry type	Dimensions mm(in.) A	B	C	Q´ty / box
2	**B2B-PH-SM**	–	2.0(.079)	5.9(.232)	4.7(.185)	1,000
4	**B4B-PH-SM**	–	6.0(.236)	9.9(.390)	8.7(.343)	500
5	–	**S 5B-PH-SM**	8.0(.315)	11.9(.469)	10.7(.421)	500
7	**B7B-PH-SM**	**S 7B-PH-SM**	12.0(.472)	15.9(.626)	14.7(.579)	500
10	–	**S10B-PH-SM**	18.0(.709)	21.9(.862)	20.7(.815)	250
11	–	**S11B-PH-SM**	20.0(.787)	23.9(.941)	22.7(.894)	250

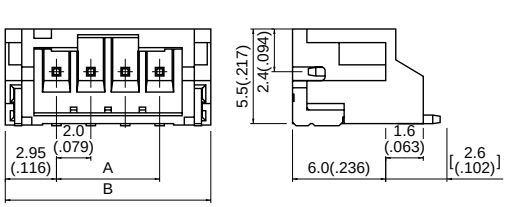
Material and Finish	
Post:	Brass nickel-undercoated, tin-plated
Wafer:	PPS, UL94V-0, natural (dark brown)

SM3 type

Top entry type



Side entry type

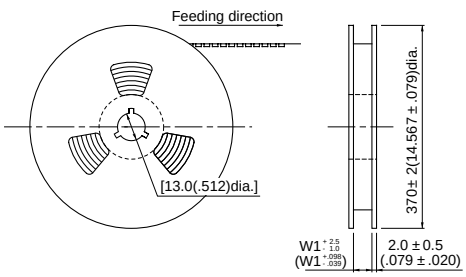


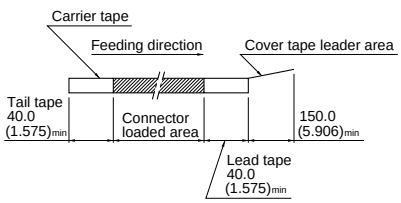
Circuits	Model No. Top entry type	Model No. Side entry type	Dimensions mm(in.) A	B	Q´ty / reel
2	**B 2B-PH-SM3-TB**	**S 2B-PH-SM3-TB**	2.0(.079)	7.9(.311)	1,000
3	**B 3B-PH-SM3-TB**	**S 3B-PH-SM3-TB**	4.0(.157)	9.9(.390)	1,000
4	**B 4B-PH-SM3-TB**	**S 4B-PH-SM3-TB**	6.0(.236)	11.9(.469)	1,000
5	**B 5B-PH-SM3-TB**	**S 5B-PH-SM3-TB**	8.0(.315)	13.9(.547)	1,000
6	**B 6B-PH-SM3-TB**	**S 6B-PH-SM3-TB**	10.0(.394)	15.9(.626)	1,000
7	**B 7B-PH-SM3-TB**	**S 7B-PH-SM3-TB**	12.0(.472)	17.9(.705)	1,000
8	**B 8B-PH-SM3-TB**	**S 8B-PH-SM3-TB**	14.0(.551)	19.9(.783)	1,000
9	**B 9B-PH-SM3-TB**	**S 9B-PH-SM3-TB**	16.0(.630)	21.9(.862)	1,000
10	**B10B-PH-SM3-TB**	**S10B-PH-SM3-TB**	18.0(.709)	23.9(.941)	1,000
11	**B11B-PH-SM3-TB**	–	20.0(.787)	25.9(1.020)	1,000
12	**B12B-PH-SM3-TB**	**S12B-PH-SM3-TB**	22.0(.866)	27.9(1.098)	1,000
13	**B13B-PH-SM3-TB**	**S13B-PH-SM3-TB**	24.0(.945)	29.9(1.177)	1,000
14	–	**S14B-PH-SM3-TB**	26.0(1.024)	31.9(1.256)	1,000

Material and Finish	
Post:	Copper alloy, copper-undercoated, tin/lead-plated
Wafer:	Nylon 46, UL94V-0, natural (ivory)
Solder tab:	Brass, copper-undercoated, tin/lead-plated

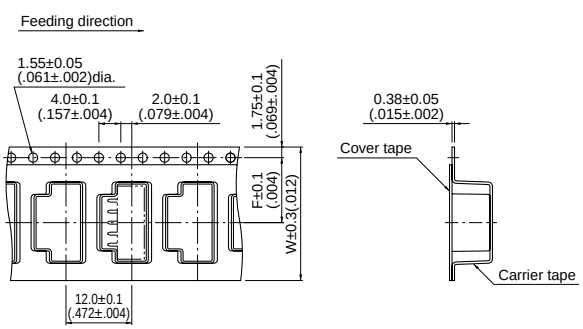
Note: The products listed above are supplied on embossed-tape.

Taping specifications of SM3 type shrouded headers

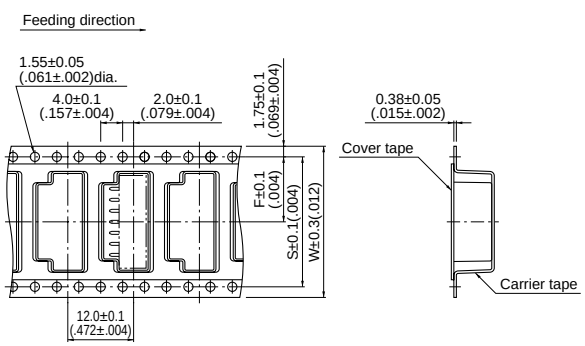




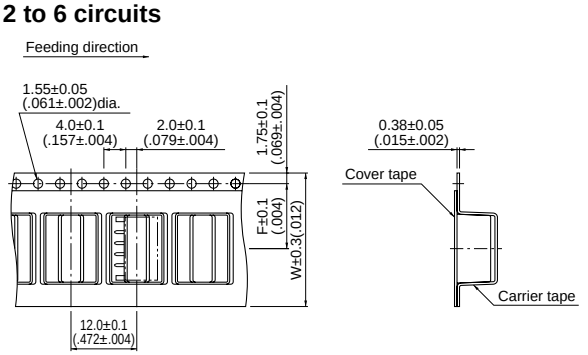
Top entry type
2 to 6 circuits



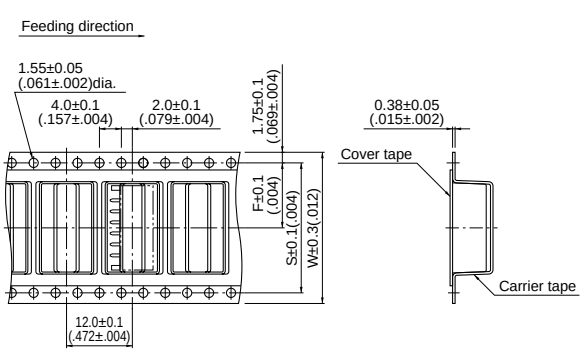
Top entry type
7 to 13 circuits



side entry type
2 to 6 circuits



side entry type
7 to 13 circuits



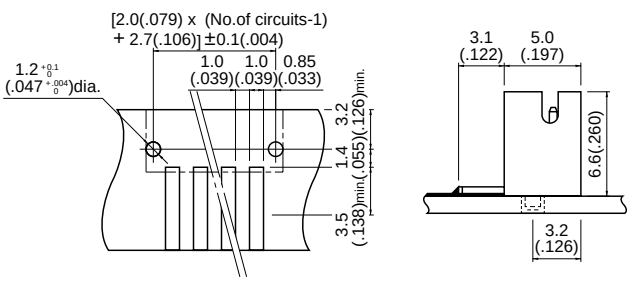
Circuits		Taping dimensions mm(in.)			Reel dimensions mm(in.)	Q´ty / reel
		F	S	W	W1	
Top entry type	2 to 3	7.5(.295)	–	16.0(.630)	17.5(.689)	1,000
	4 to 6	11.5(.453)	–	24.0(.945)	25.5(1.004)	1,000
	7 to 9	14.2(.559)	28.4(1.118)	32.0(1.260)	33.5(1.319)	1,000
	10 to 13	20.2(.795)	40.4(1.591)	44.0(1.732)	45.5(1.791)	1,000
Side entry type	2 to 3	7.5(.295)	–	16.0(.630)	17.5(.689)	1,000
	4 to 6	11.5(.453)	–	24.0(.945)	25.5(1.004)	1,000
	7 to 9	14.2(.559)	28.4(1.118)	32.0(1.260)	33.5(1.319)	1,000
	10 to 13	20.2(.795)	40.4(1.591)	44.0(1.732)	45.5(1.791)	1,000

Note:Specifications conform to JIS C 0806. The tape width, connector loading recess square hole dimensions, etc. are determined by the number of circuits and external shape of the connector to be loaded.

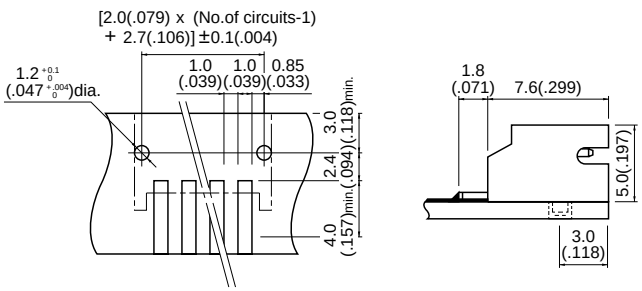
SMT type PC board layout (viewed from component side) and Assembly layout ––––––––

SM type

Top entry type

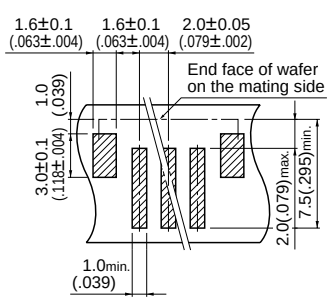


Side entry type

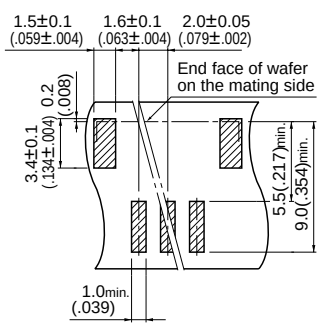


SM3 type

Top entry type



Side entry type



Note:

1. Tolerances are non-cumulative:±0.05mm(±.002") for all centers.

2. The dimensions above should serve as a guideline.Contact JST for details.