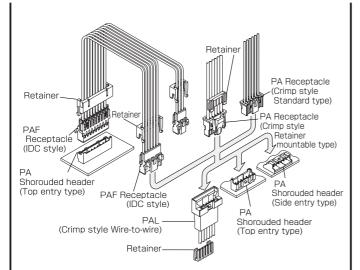


FAMILY SERIES/PA•PAF•PAL CONNECTOR

2.0mm pitch/Wire-to-board (Crimp style/IDC) / Wire-to-wire (Crimp style/IDC)



Based upon wire-to-board crimp style PA connectors, the PA series family of connector have been expanded to meet the requirement of complex wire harness of 2.0mm pitch connectors with secure locking mechanism thanks to the additional line up of wire-to-board IDC style PAF connectors and wire-to-wire crimp style PAL connectors.

- Secure locking device
- Interchangeable between crimp and IDC socket
- Secondary retainers
- Harness variation

PA connector (Standard type, Retainer mountable type)

- Highly reliable contact
- Insertion guide mechanism
- Flanged press pin

PAF connector

- The industry's first secure lock ID connectors
- Metallic strain relief
- · Retainer with four locking points

PAL connector

- The industry's first wire to wire 2.0mm pitch retainer mountable type connector.
- Either with or without panel lock can be selected according to application.

Standards -

Recognized E60389

⊕ Certified LR20812

Specifications -

PA Connector (Standard type)

Current rating: 3A AC, DC (AWG #22)Voltage rating: 250V 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: Initial/ 1,000M Ω min. • Withstanding voltage: 800V AC/minute • Applicable wire: AWG #28 to #22

Applicable PC board thickness: 1.6mm

PA Connector (Retainer mountable type)

• Current rating: 3A AC, DC (AWG #22)

Voltage rating: 100V AC, DC
Temperature range: -25°C to +85°C

(including temperature rise in applying electrical current)

• Contact resistance: Initial value/ 15m Ω max.

After environmental testing/ 25m Ω max.

Insulation resistance: Initial/ 1,000M Ω min.
Withstanding voltage: 800V AC/minute
Applicable wire: AWG #28 to #22

PAF Connector

Current rating: 1.0A AC, DC (AWG #26)Voltage rating: 100V AC, DC

Voltage rating: 100V AC, DC
 Temperature range: -25°C to +85°C

(including temperature rise in applying electrical current)

• Contact resistance: Initial value/ 15m Ω max.

After environmental testing/ 25m Ω max.

• Insulation resistance: Initial/ 1,000M Ω min.

• Withstanding voltage: 800V AC/minute

• Applicable wire: UL1061(Contact JST for details regarding other UL wires.)

AWG #26

Conductor/ 7 strands, tin-coated annealed copper

Insulation O.D./ 0.9 to 1.0mm

PAL Connector

• Current rating: 3A AC, DC (AWG #22)

Voltage rating: 100V AC, DC

• Temperature range: -25°C to +85°C

(including temperature rise in applying electrical current)

• Contact resistance: Initial value/ 15m Ω max.

After environmental testing/ $25m \Omega$ max.

• Insulation resistance: Initial/ 1,000M Ω min.

• Withstanding voltage: 800V AC/minute

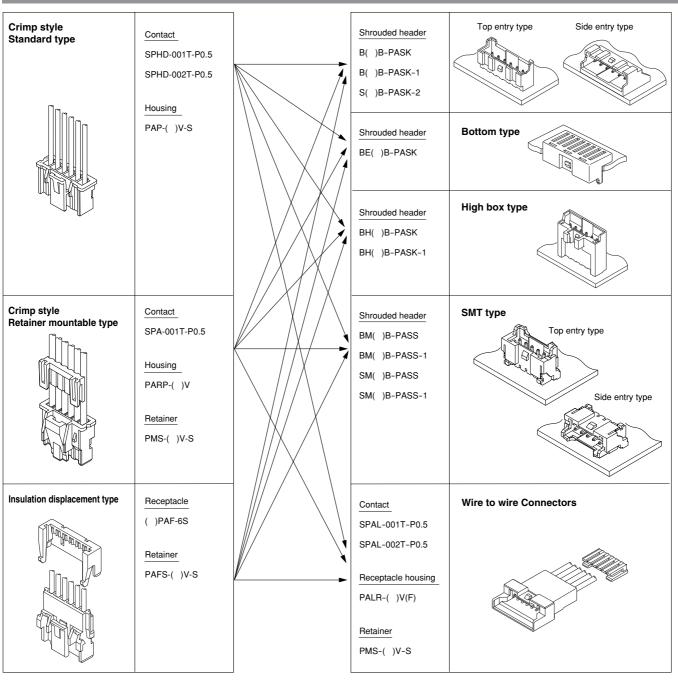
Applicable wire: AWG #28 to #22Applicable panel thickness: 0.5 to 2.0mm

* Compliant with RoHS.

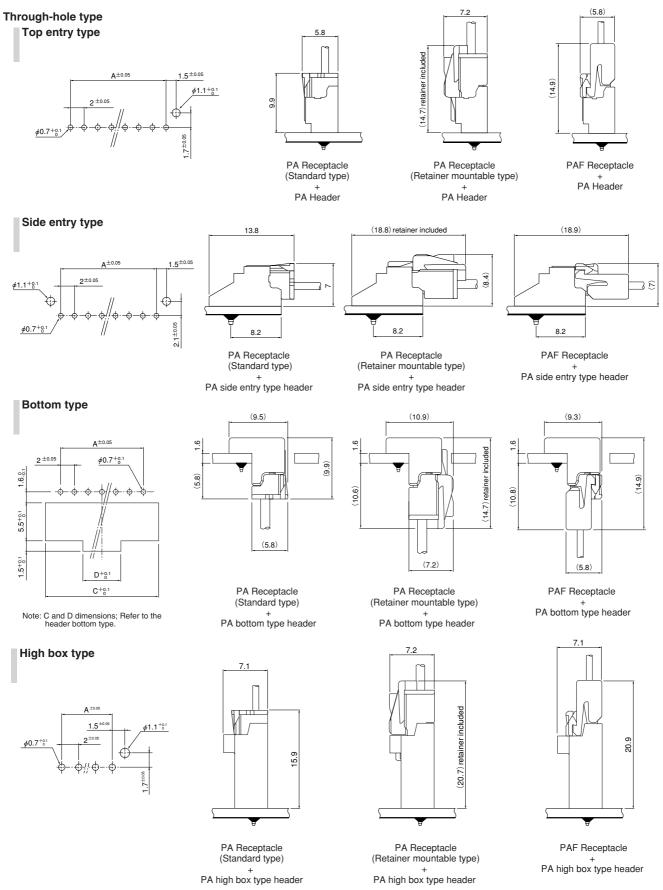
- * Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- * Contact JST for details.

PA FAMILY SERIES /PA+PAF+PAL CONNECTOR

List of combinations



PA FAMILY SERIES /PA+PAF+PAL CONNECTOR



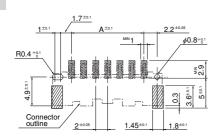
Note: 1. The above figure is the figure viewed from the connector mounting side. 2. Tolerances are non-cumulative: ±0.05mm for all centers.

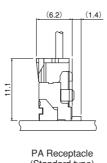
- 3. Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

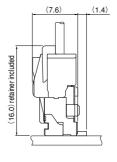
PA FAMILY SERIES /PA+PAF+PAL CONNECTOR

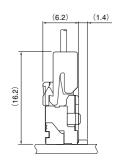
SMT type

Top entry type







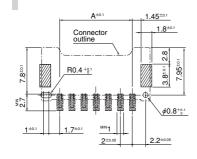


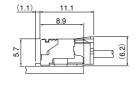
(Standard type) PA Header

PA Receptacle (Retainer mountable type) PA Header

PAF Receptacle PA Header

Side entry type

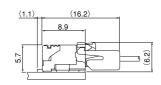




PA Receptacle (Standard type) PA side entry type header



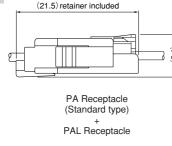
PA Receptacle (Retainer mountable type) PA side entry type header

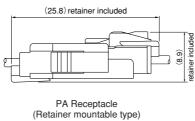


PAF Receptacle PA side entry type header

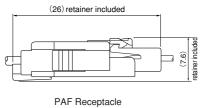
- Note: 1. The above figure is the figure viewed from the connector mounting side.
 - 2. Tolerances are non-cumulative: ±0.05mm for all centers.
 - 3. The dimensions above should serve as a guideline. Contact JST for details.

Wire-to-wire





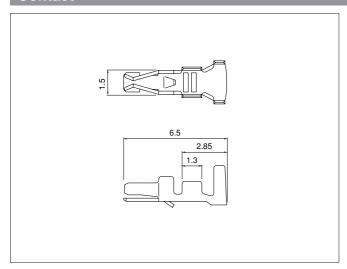
PAL Receptacle



PAL Receptacle

PA FAMILY SERIES /PA CONNECTOR (Crimp style Standard type)

Contact



Model No	Applicable wire		Insulation O.D.	Q'ty /	
Model No.	mm ²	AWG#	(mm)	reel	
SPHD-001T-P0.5	0.13~0.33	26~22	1.0~1.5	8,000	
SPHD-002T-P0.5	0.08~0.21	28~24	0.9~1.5	8,000	

Material and Finish

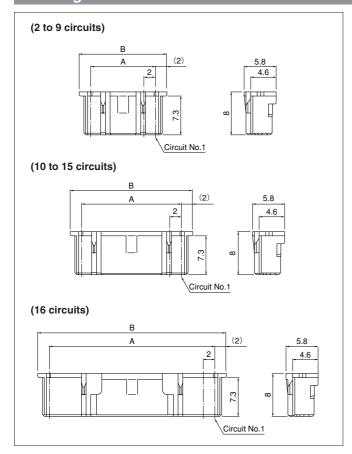
Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

	Contact	Crimping		Applicator	
		machine	Crimp applicator	Dies	Crimp applicator with dies
	SPHD-002T-P0.5	AP-K2N	MKS-L-10	MK/SPHD-002-05	APLMK SPHD002-05
			*MKS-SC-10	SC/SPHD-002-05	APLSC SPHD002-05
		AI -NZIN	MKS-L-10	MK/SPHD-001-05	APLMK SPHD001-05
SPHD-001T-P0.5		*MKS-SC-10	SC/SPHD-001-05	APLSC SPHD001-05	

Note: *Strip-crimp applicator

Housing



Circuits	Model No.	Dimensio	Q'ty /	
Circuits	Model No.	Α	В	bág
2	PAP-02V-S	2.0	6.0	1,000
3	PAP-03V-S	4.0	8.0	1,000
4	PAP-04V-S	6.0	10.0	1,000
5	PAP-05V-S	8.0	12.0	1,000
6	PAP-06V-S	10.0	14.0	1,000
7	PAP-07V-S	12.0	16.0	1,000
8	PAP-08V-S	14.0	18.0	1,000
9	PAP-09V-S	16.0	20.0	1,000
10	PAP-10V-S	18.0	22.0	1,000
11	PAP-11V-S	20.0	24.0	1,000
12	PAP-12V-S	22.0	26.0	1,000
13	PAP-13V-S	24.0	28.0	1,000
14	PAP-14V-S	26.0	30.0	1,000
15	PAP-15V-S	28.0	32.0	1,000
16	PAP-16V-S	30.0	34.0	1,000

Material

PA 66, UL94V-0, natural (white)

RoHS compliance

As the color identification,

the following alphabet shall be put in the underlined part.

For availability, delivery and minimum order quantity, contact JST.

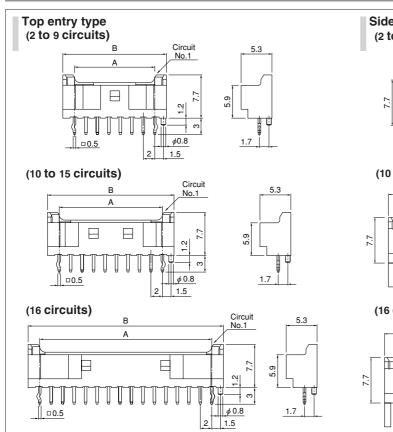
ex. PAP-02V-S

S...natural (white)

K...black R...red E...blue M...green O...orange N...brown P...purple PK...pink Y...yellow L...lemon yellow FY...vivid yellow

LE...light blue H...gray TR...tomato red

Through-hole type shrouded header



Side entry type (2 to 9 circuits) (3.4)6.5 8.2 2 Circuit No.1 (10 to 15 circuits) В (3.4) Α 8.2 2 Circuit No.1 (16 circuits) 6.5 (3.4)2 Circuit No.1

Top entry type

Oiit-	Mode	el No.	Dimensio	ons (mm)	Q'ty /
Circuits	Without a boss	With a boss	Α	В	box
2 (Note1)	B02B-PAFYK-A	B02B-PAFYK-1A	2.0	6.0	1,000
2	B02B-PASK	B02B-PASK-1	2.0	6.0	1,000
3	B03B-PASK	B03B-PASK-1	4.0	8.0	1,000
4	B04B-PASK	B04B-PASK-1	6.0	10.0	1,000
5	B05B-PASK	B05B-PASK-1	8.0	12.0	500
6	B06B-PASK	B06B-PASK-1	10.0	14.0	500
7	B07B-PASK	B07B-PASK-1	12.0	16.0	500
8	B08B-PASK	B08B-PASK-1	14.0	18.0	500
9	B09B-PASK	B09B-PASK-1	16.0	20.0	500
10	B10B-PASK	B10B-PASK-1	18.0	22.0	500
11	B11B-PASK	B11B-PASK-1	20.0	24.0	250
12	B12B-PASK	B12B-PASK-1	22.0	26.0	250
13	B13B-PASK	B13B-PASK-1	24.0	28.0	250
14	B14B-PASK	B14B-PASK-1	26.0	30.0	250
15	B15B-PASK	B15B-PASK-1	28.0	32.0	250
16	B16B-PASK	B16B-PASK-1	30.0	34.0	250

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)
Wafer: Glass-filled PBT, UL94V-0, natural (white)
(Note1) PA 66, UL94V-0, vivid yellow

RoHS compliance This product displays (LF)(SN) on a label.

<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. B02B-PASK

S...natural (white)

K...black R...red E...blue M...green O...orange N...brown P...purple PK...pink Y...yellow L...lemon yellow FY...vivid yellow LE...light blue H...gray TR...tomato red

Side entry type

Circuita	Model No.	Dimensi	Dimensions (mm)		
Circuits	Model No.	Α	В	Q'ty / box	
2	S02B-PASK-2	2.0	6.0	1,000	
3	S03B-PASK-2	4.0	8.0	1,000	
4	S04B-PASK-2	6.0	10.0	500	
5	S05B-PASK-2	8.0	12.0	500	
6	S06B-PASK-2	10.0	14.0	500	
7	S07B-PASK-2	12.0	16.0	250	
8	S08B-PASK-2	14.0	18.0	250	
9	S09B-PASK-2	16.0	20.0	250	
10	S10B-PASK-2	18.0	22.0	250	
11	S11B-PASK-2	20.0	24.0	250	
12	S12B-PASK-2	22.0	26.0	250	
13	S13B-PASK-2	24.0	28.0	200	
14	S14B-PASK-2	26.0	30.0	200	
15	S15B-PASK-2	28.0	32.0	200	
16	S16B-PASK-2	30.0	34.0	200	

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment) Wafer: Glass-filled PBT, UL94V-0, natural (white)

RoHS compliance This product displays (LF)(SN) on a label.

<For reference> As the color identification,

the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

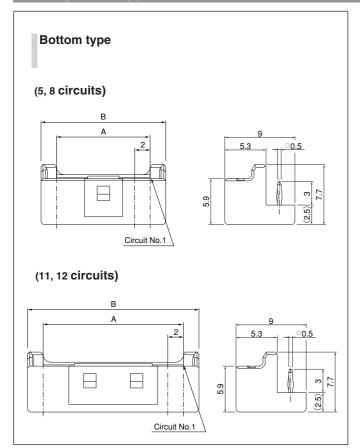
ex. S03B-PASK-2

S...natural (white)

K...black R...red E...blue M...green O...orange N...brown P...purple PK...pink Y...yellow L...lemon yellow LE...light blue H...gray TR...tomato red

PA FAMILY SERIES

Through-hole type shrouded header



Circuits	Circuits Model No.		Dimensions(mm)			
Circuits	iviodei No.	Α	В	C	D	bag
5	BE05B-PASK	8.0	12.0	12.4	5.5	300
8	BE08B-PASK	14.0	18.0	18.4	5.5	200
11	BE11B-PASK	20.0	24.0	24.4	12.0	150
12	BE12B-PASK	22.0	26.0	26.4	12.0	150

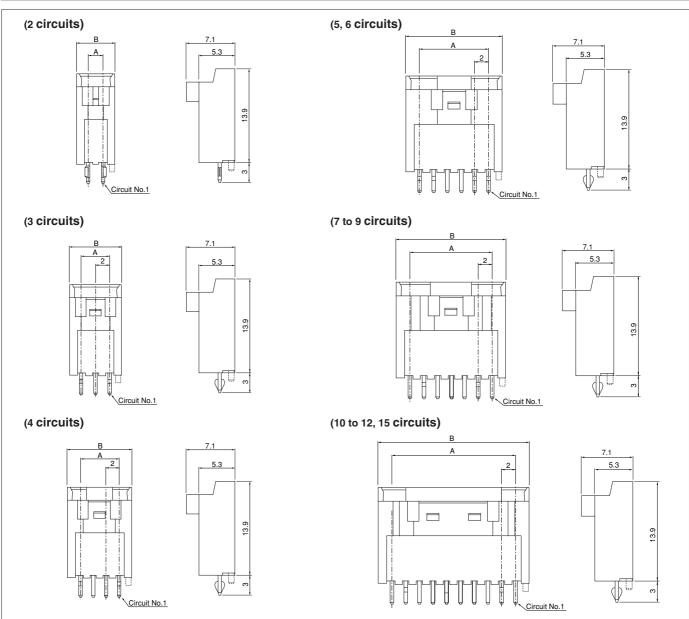
Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment) Wafer: Glass-filled PBT, UL94V-0, natural

RoHS compliance This product displays (LF)(SN) on a label.

Note: C and D dimensions; Refer to the PCB layout bottom type (P3).

Shrouded header <High box type>



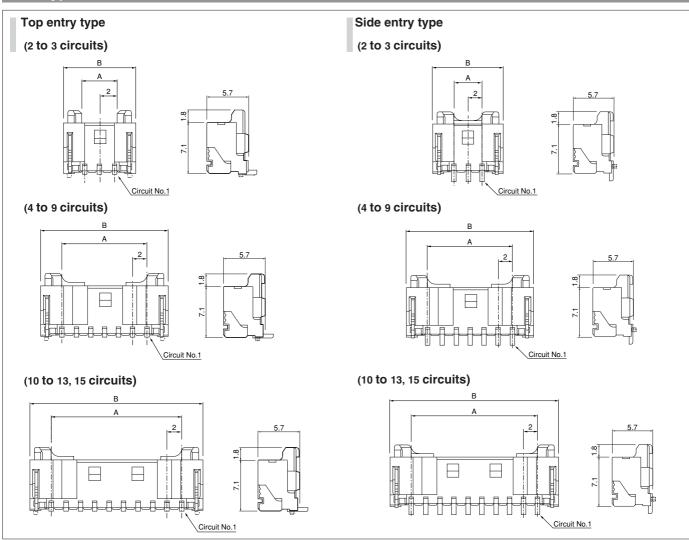
Circuits	Mode	Dimensions(mm)		Q'ty /	
Circuits	Without a boss	With a boss	A	В	box
2	BH02B-PASK	BH02B-PASK-1	2.0	6.0	900
3	BH03B-PASK	BH03B-PASK-1	4.0	8.0	675
4	BH04B-PASK	BH04B-PASK-1	6.0	10.0	525
5	BH05B-PASK	BH05B-PASK-1	8.0	12.0	450
6	BH06B-PASK	BH06B-PASK-1	10.0	14.0	375
7	BH07B-PASK	BH07B-PASK-1	12.0	16.0	325
8	BH08B-PASK	BH08B-PASK-1	14.0	18.0	300
9	BH09B-PASK	BH09B-PASK-1	16.0	20.0	250
10	BH10B-PASK	BH10B-PASK-1	18.0	22.0	225
11	BH11B-PASK	BH11B-PASK-1	20.0	24.0	225
12	BH12B-PASK	BH12B-PASK-1	22.0	26.0	200
15	BH15B-PASK	BH15B-PASK-1	28.0	32.0	150
15	DHIDD-PASK	DHIDD-PASK-I	28.0	32.0	150

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment) Wafer: Glass-filled PBT, UL94V-0, natural (white)

PA FAMILY SERIES

SMT type shrouded header



Top entry type

Top entry type							
Circuits	Mode	el No.	Dimensions(mm)		Q'ty /		
Circuits	Without a boss	With a boss	Α	В	reel		
2	BM02B-PASS-(*)	BM02B-PASS-1-(*)	2.0	8.0	500		
3	BM03B-PASS-(*)	BM03B-PASS-1-(*)	4.0	10.0	500		
4	BM04B-PASS-(*)	BM04B-PASS-1-(*)	6.0	12.0	500		
5	BM05B-PASS-(*)	BM05B-PASS-1-(*)	8.0	14.0	500		
6	BM06B-PASS-(*)	BM06B-PASS-1-(*)	10.0	16.0	500		
7	BM07B-PASS-(*)	BM07B-PASS-1-(*)	12.0	18.0	500		
8	BM08B-PASS-(*)	BM08B-PASS-1-(*)	14.0	20.0	500		
9	BM09B-PASS-(*)	BM09B-PASS-1-(*)	16.0	22.0	500		
10	BM10B-PASS-(*)	BM10B-PASS-1-(*)	18.0	24.0	500		
11	BM11B-PASS-(*)	BM11B-PASS-1-(*)	20.0	26.0	500		
12	BM12B-PASS-(*)	BM12B-PASS-1-(*)	22.0	28.0	500		
13	BM13B-PASS-(*)	BM13B-PASS-1-(*)	24.0	30.0	500		
15	BM15B-PASS-(*)	BM15B-PASS-1-(*)	28.0	34.0	500		

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

Wafer: PA, UL94V-0, natural (ivory)
Solder tab: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

Material and Finish

RoHS compliance This product displays (LF)(SN) on a label. Note: (*): TF...taping product

TFT...taping product with suction tape.

Side entry type

Side entry type							
Circuits	Mode	el No.	Dimensions(mm)		Q'ty /		
Circuits	Without a boss	With a boss	Α	В	reel		
2	SM02B-PASS-(*)	SM02B-PASS-1-(*)	2.0	8.0	1,000		
3	SM03B-PASS-(*)	SM03B-PASS-1-(*)	4.0	10.0	1,000		
4	SM04B-PASS-(*)	SM04B-PASS-1-(*)	6.0	12.0	1,000		
5	SM05B-PASS-(*)	SM05B-PASS-1-(*)	8.0	14.0	1,000		
6	SM06B-PASS-(*)	SM06B-PASS-1-(*)	10.0	16.0	1,000		
7	SM07B-PASS-(*)	SM07B-PASS-1-(*)	12.0	18.0	1,000		
8	SM08B-PASS-(*)	SM08B-PASS-1-(*)	14.0	20.0	1,000		
9	SM09B-PASS-(*)	SM09B-PASS-1-(*)	16.0	22.0	1,000		
10	SM10B-PASS-(*)	SM10B-PASS-1-(*)	18.0	24.0	1,000		
11	SM11B-PASS-(*)	SM11B-PASS-1-(*)	20.0	26.0	1,000		
12	SM12B-PASS-(*)	SM12B-PASS-1-(*)	22.0	28.0	1,000		
13	SM13B-PASS-(*)	SM13B-PASS-1-(*)	24.0	30.0	1,000		
15	SM15B-PASS-(*)	SM15B-PASS-1-(*)	28.0	34.0	1,000		

Material and Finish

Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

Wafer: PA, UL94V-0, natural (ivory)
Solder tab: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

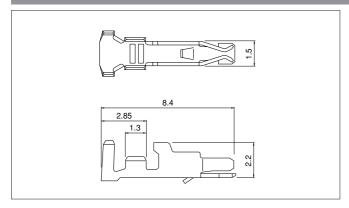
RoHS compliance This product displays (LF)(SN) on a label.

Note: (*): TB...taping product

TBT...taping product with suction tape.

PA FAMILY SERIES /PA CONNECTOR (Crimp style Retainer mountable type)

Contact



Madal Na	Applicable wire		Insulation O.D.	Q'ty /
Model No.	mm ²	AWG #	(mm)	reel
SPA-001T-P0.5	0.13~0.33	26~22	0.9~1.5	10,000

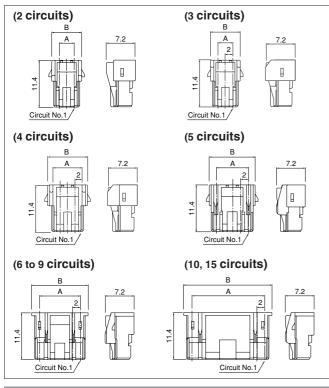
Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

Contact	Crimping		Applicator	
Contact		Crimp applicator	Dies	Crimp applicator with dies
SPA-001T-P0.5	AD KON	MKS-L	MK/SPA-001-05	APLMK SPA001-05
	AP-K2N	_	_	_

Housing



Circuits	Model No.	Dimension	Q'ty /	
Circuits	Model No.	Α	В	bag
2	PARP-02V	2.0	5.4	1,000
3	PARP-03V	4.0	7.4	1,000
4	PARP-04V	6.0	9.4	1,000
5	PARP-05V	8.0	11.4	1,000
6	PARP-06V	10.0	14.0	1,000
7	PARP-07V	12.0	16.0	1,000
8	PARP-08V	14.0	18.0	1,000
9	PARP-09V	16.0	20.0	1,000
10	PARP-10V	18.0	22.0	1,000
15	PARP-15V	28.0	32.0	500

Material

PA 66, UL94V-0, natural (white)

RoHS compliance

<For reference> As the color identification,

the following alphabet shall be put in the underlined part.

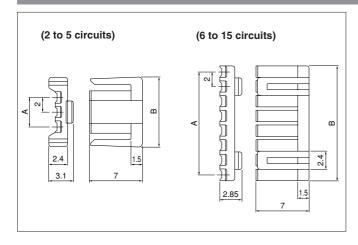
For availability, delivery and minimum order quantity, contact JST.

ex. PARP-02V-oo

(blank)...natural (white)

R...red E...blue Y...yellow M...green

Retainer



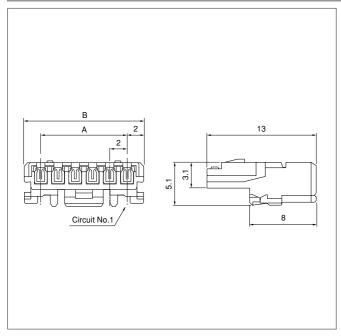
Circuits	Model No.	Dimensi	Q'ty /	
		Α	В	bag
2	PMS-02V-S	2.0	7.3	1,000
3	PMS-03V-S	4.0	9.3	1,000
4	PMS-04V-S	6.0	11.3	1,000
5	PMS-05V-S	8.0	13.3	1,000
6	PMS-06V-S	10.0	11.55	1,000
7	PMS-07V-S	12.0	13.55	1,000
8	PMS-08V-S	14.0	15.55	1,000
9	PMS-09V-S	16.0	17.55	1,000
10	PMS-10V-S	18.0	19.55	1,000
15	PMS-15V-S	28.0	29.55	1,000

Material

Glass-filled PA 66, UL94V-0, natural (ivory)

PA FAMILY SERIES /PAF CONNECTOR (Insulation displacement type)

Receptacle



Circuits	Model No.	Dimensi	Q'ty /	
Circuits		А	В	box
2	02PAF-6S	2.0	6.0	1,000
3	03PAF-6S	4.0	8.0	1,000
4	04PAF-6S	6.0	10.0	500
5	05PAF-6S	8.0	12.0	500
6	06PAF-6S	10.0	14.0	500
7	07PAF-6S	12.0	16.0	500
8	08PAF-6S	14.0	18.0	250
9	09PAF-6S	16.0	20.0	250
10	10PAF-6S	18.0	22.0	250
11	11PAF-6S	20.0	24.0	250
12	12PAF-6S	22.0	26.0	250
13	13PAF-6S	24.0	28.0	250
14	14PAF-6S	26.0	30.0	250
15	15PAF-6S	28.0	32.0	250
*16	16PAF-6S	30.0	34.0	250

Material and Finish

Contact: Phosphor bronze, tin-plated (reflow treatment) Housing: PA 66, UL94V-0, natural (white)

RoHS compliance

Note: *Marked product is not UL/CSA approved.

<For reference> As the color identification,

the following alphabet shall be put in the underlined part.

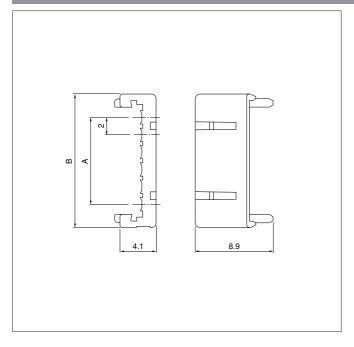
For availability, delivery and minimum order quantity, contact JST.

ex. **02PAF-6S**

S...natural (white)

R...red E...blue M...green Y...yellow

Retainer



Circuits	Model No.	Dimensi	Q'ty /	
Circuits		Α	В	bag
2	PAFS-02V-S	2.0	7.4	1,000
3	PAFS-03V-S	4.0	9.4	1,000
4	PAFS-04V-S	6.0	11.4	1,000
5	PAFS-05V-S	8.0	13.4	1,000
6	PAFS-06V-S	10.0	15.4	1,000
7	PAFS-07V-S	12.0	17.4	1,000
8	PAFS-08V-S	14.0	19.4	1,000
* 9	PAFS-09V-S	16.0	21.4	1,000
*10	PAFS-10V-S	18.0	23.4	1,000
*11	PAFS-11V-S	20.0	25.4	1,000
*12	PAFS-12V-S	22.0	27.4	1,000
*13	PAFS-13V-S	24.0	29.4	1,000
*14	PAFS-14V-S	26.0	31.4	1,000
*15	PAFS-15V-S	28.0	33.4	1,000

Material

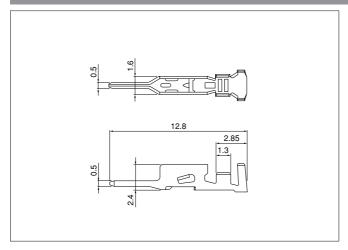
Glass-filled PA 66, UL94V-0, natural (ivory)

RoHS compliance

Note: *Marked products are not UL/CSA approved.

PA FAMILY SERIES /PAL CONNECTOR (Wire-to-wire type)

Contact



Model No.	Applicable wire		Insulation O.D.	Q'ty /
woder No.	mm ²	AWG#	(mm)	reel
SPAL-001T-P0.5	0.13~0.33	26~22	1.0~1.5	10,000
SPAL-002T-P0.5	0.08~0.21	28~24	0.9~1.5	10,000

Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

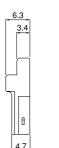
Contact	Cantast	Crimping machine	Applicator				
	Contact		Crimp applicator	Dies	Crimp applicator with dies		
	CDAL COST DO E	AD WOLL	MKS-L	MK/SPAL-001-05	APLMK SPAL001-05		
SPAI	SPAL-001T-P0.5		_	_	_		
	CDAL COST DO E	AL-002T-P0.5	MKS-L	MK/SPAL-002-05	APLMK SPAL002-05		
	SPAL-0021-P0.5		_	_	_		

Housing

Without panel locks (2 to 5 circuits)

20



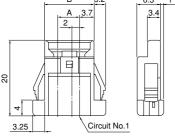


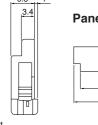
2 \Box 20 Circuit No.1

(6 to 8 circuits)

With panel locks (2 to 4 circuits)

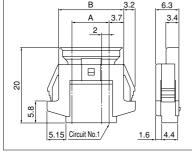
Circuit No.1



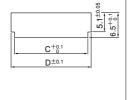


Panel layout C^{+0.1} D±0.1

(6 to 8 circuits)



Panel layout



Circuits	Model No.	Dimensi	Q'ty /	
Circuits		Α	В	bag
2	PALR-02VF	2.0	9.4	1,000
3	PALR-03VF	4.0	11.4	1,000
4	PALR-04VF	6.0	13.4	1,000
5	PALR-05VF	8.0	15.4	1,000
6	PALR-06VF	10.0	17.4	1,000
7	PALR-07VF	12.0	19.4	1,000
8	PALR-08VF	14.0	21.4	1,000

Material

PA 66, UL94V-0, natural (white)

RoHS compliance

Circuits	Model No.	Dimensions(mm)				Q'ty /
		Α	В	C	D	bag
2	PALR-02V	2.0	9.4	9.8	13.4	1,000
3	PALR-03V	4.0	11.4	11.8	15.4	1,000
4	PALR-04V	6.0	13.4	13.8	17.4	1,000
6	PALR-06V	10.0	17.4	19.8	21.4	1,000
7	PALR-07V	12.0	19.4	21.8	23.4	1,000
8	PALR-08V	14.0	21.4	23.8	25.4	1,000

Material

PA 66, UL94V-0, natural (white)

RoHS compliance

<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. PALR-02V(F)-oo

(blank)...natural (white)

R...red E...blue M...green Y...yellow

Retainer