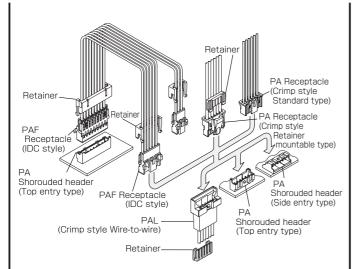


FAMILY SERIES/PA•PAF•PAL CONNECTOR

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
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 Ω max.

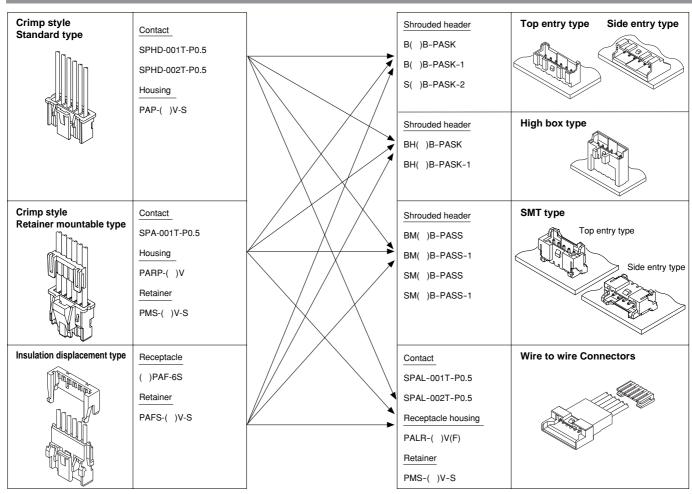
• Insulation resistance: Initial/1,000M Ω min. • Withstanding voltage: 800V AC/minute • Applicable wire: AWG #28 to #22

Applicable panel thickness: 0.5 to 2.0mm

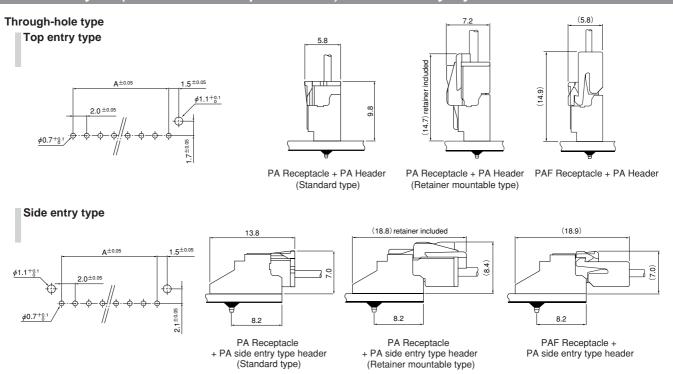
- * RoHS compliant products are published.
- * Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- * Contact JST for details.

PA FAMILY SERIES /PA+PAF+PAL CONNECTOR

List of combinations



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



Note: 1. Tolerances are non-cumulative: ± 0.05 mm for all centers.

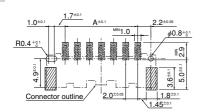
^{2.} Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

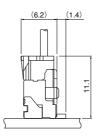
PA FAMILY SERIES /PA • PAF • PAL CONNECTOR

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

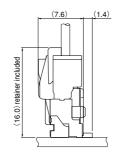
SMT type

Top entry type

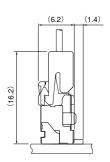






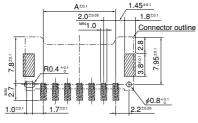


PA Receptacle + PA Header (Retainer mountable type)



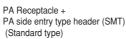
PAF Receptacle + PA Header

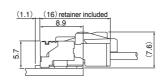
Side entry type



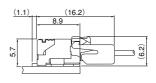


(1.1)





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

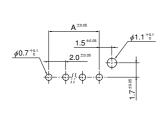


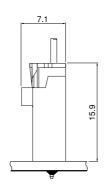
PAF Receptacle + PA side entry type header (SMT)

Note: 1. Tolerances are non-cumulative: ±0.05mm for all centers.

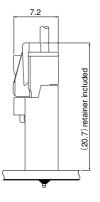
2. The dimensions above should serve as a guideline. Contact JST for details.

High box type

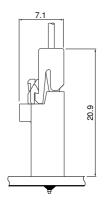




PA Receptacle + PA high box type header (Standard type)



PA Receptacle + PA high box type header (Retainer mountable type)

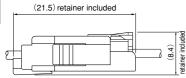


PAF Receptacle + PA high box type header

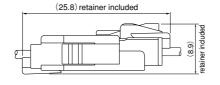
Note: 1. Tolerances are non-cumulative: ±0.05mm for all centers.

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.

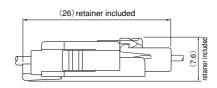
Wire-to-wire



PA Receptacle + PAL Receptacle (Standard type)



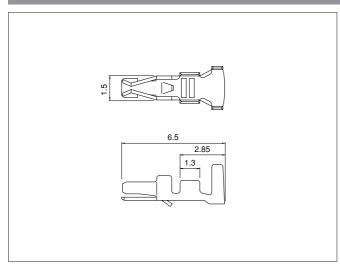
PA Receptacle + PAL Receptacle (Retainer mountable type)



PAF 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

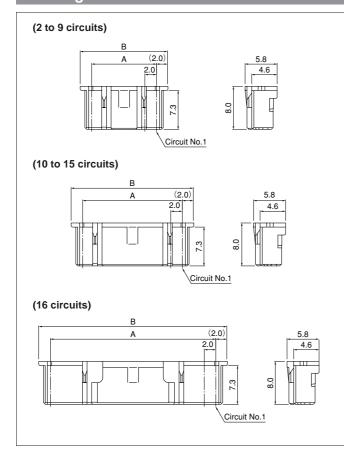
Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

Ī	Contact	Crimping	Applicator			
	Contact	machine	Crimp applicator	Dies	Crimp applicator with dies	
	SPHD-002T-P0.5	AP-K2N	MKS-LS-10 · MKS-L-10	MK/SPHD-002-05	APLMK SPHD002-05	
			*MKS-SC-10	SC/SPHD-002-05	APLSC SPHD002-05	
	ODUD 0047 D0 5		MKS-LS-10 · 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.	Dimension	Q'ty /	
Circuits	Model No.	Α	В	bag
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

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.

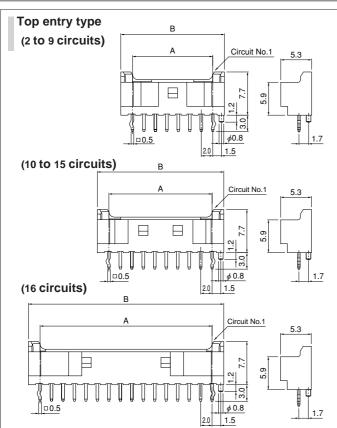
ex. **PAP-02V-S**

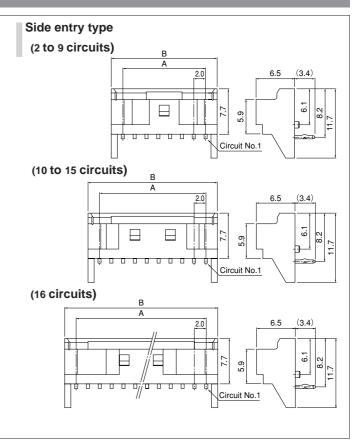
S...natural (white

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

PA FAMILY SERIES

Through-hole type shrouded header





Top entry type

Circuito	Mode	el No.	Dimensions (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

Circuits	Model No.	Dimensi	Dimensions (mm)		
Circuits	woder no.	Α	В	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

SMT type shrouded header

Top entry type Side entry type (2 to 3 circuits) (2 to 3 circuits) 2.0 Circuit No.1 Circuit No.1 (4 to 9 circuits) (4 to 9 circuits) 2.0 2.0 A Circuit No.1 Circuit No.1 (10 to 12 circuits) (10 to 13 circuits) 2.0 2.0 Circuit No.1 Circuit No.1

Top entry type

Top entry type							
Circuits	Mode	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		

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: (*): TF...taping product

TFT...taping product with suction tape.

Side entry type

Circuits	Mode	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

Material and Finish

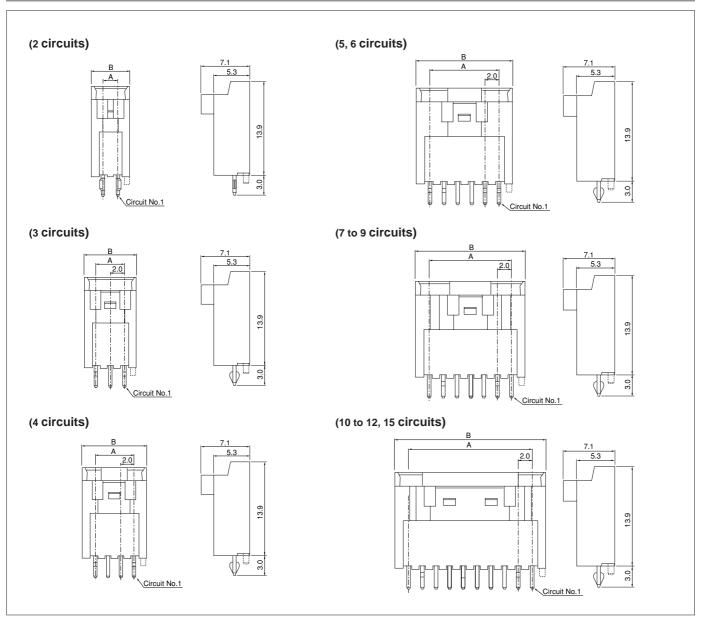
Post: Copper alloy, copper-undercoated, tin-plated (reflow treatment) Wafer: PA, UL94V-0, natural (ivory) Solder tab: Copper alloy, copper-undercoated, tin-plated (reflow treatment)

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

TBT...taping product with suction tape.

PA FAMILY SERIES

Shrouded header <High box type>



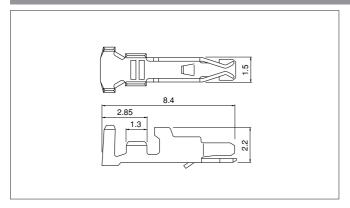
Circuits	Mode	Dimensions(mm)		Q'ty /	
Circuits	Without a boss	With a boss	Α	В	box
2	BH02B-PASK	BH02B-PASK-1	2.0	6.0	900
3	BH03B-PASK	BH03B-PASK-1	4.0	8.0	675
4	BH04B-PASK	BH04B-PASK-1	6.0	10.0	525
5	BH05B-PASK	BH05B-PASK-1	8.0	12.0	450
6	BH06B-PASK	BH06B-PASK-1	10.0	14.0	375
7	BH07B-PASK	BH07B-PASK-1	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

Material and Finish

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

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

Contact



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

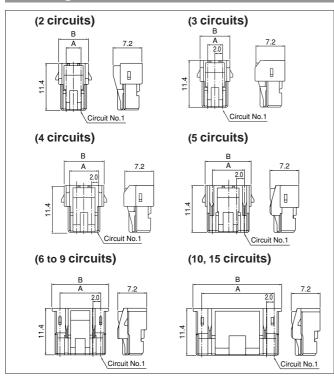
Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

Contact	Crimping		Applicator	
Contact	machine	Crimp applicator	Dies	Crimp applicator with dies
CDA 004T DO E	AD KON	MKS-L	MK/SPA-001-05	APLMK SPA001-05
SPA-001T-P0.5	AP-K2N	_	_	_

Housing



Circuits	Model No.	Dimensi	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

Note: *Marked product is not CSA approved.

<For reference> As the color identification,

the following alphabet shall be put in the underlined part.

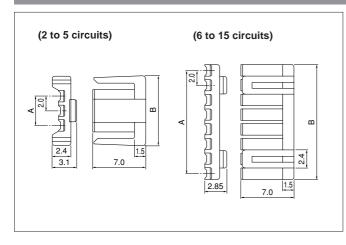
For availability, delivery and minimum order quantity, contact JST.

ex. PARP-02V-oo

(blank)...natural (white)

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

Retainer



Circuits	Model No.	Dimensi	Q'tv /	
Circuits	Widdel No.	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

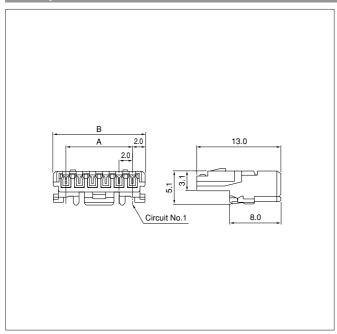
Glass-filled PA 66, UL94V-0, natural (ivory)

RoHS compliance

Note: *Marked products are not CSA approved.

PA FAMILY SERIES /PAF CONNECTOR (Insulation displacement type)

Receptacle



Circuits	Model No.	Dimensi	Q'ty /	
Circuits		Α	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,

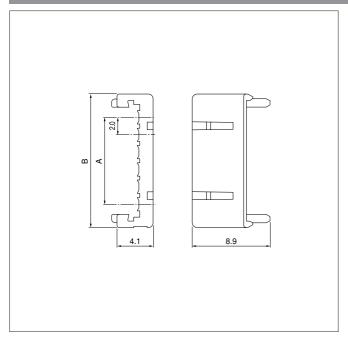
the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. **02PAF-6S**

S...natural (white)

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

Retainer



Circuits	Model No.	Dimensi	Q'ty /	
Circuits	Model No.	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

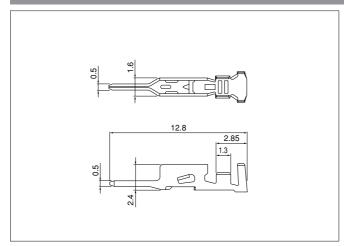
Glass-filled PA 66, UL94V-0, natural (ivory)

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 /	
Model 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	

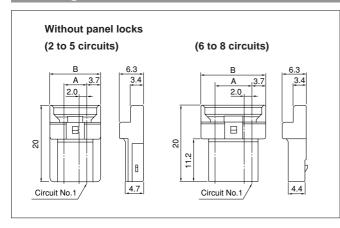
Material and Finish

Phosphor bronze, tin-plated (reflow treatment)

RoHS compliance

Contact	Contact	Crimping	Applicator				
	Contact	machine	Crimp applicator	Dies	Crimp applicator with dies		
	CDAL COAT DO 5	AP-K2N	MKS-L	MK/SPAL-001-05	APLMK SPAL001-05		
	SPAL-001T-P0.5		_	_	_		
	CDAL COST DO 5		MKS-L	MK/SPAL-002-05	APLMK SPAL002-05		
	SPAL-002T-P0.5		_	_	_		

Housing



Circuits	Model No.	Dimension	Q'ty /				
Circuits		Α	В	bág			
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						

matorial

PA 66, UL94V-0, natural (white)

RoHS compliance

Circuits	Model No.	Dimensions(mm)				Q'ty /
		Α	В	С	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)

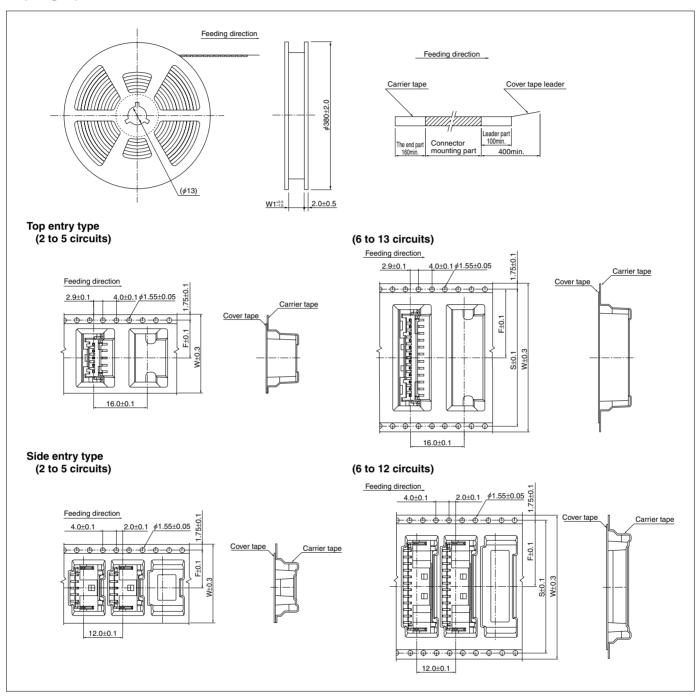
R...red E...blue M...green Y...yellow

With panel locks (2 to 4 circuits) B 3.2 A 3.7 2.0 Circuit No.1	D±0.1 C+0.1 S0 S0 S0 S0 S0 S0 S0 S0 S0 S
(6 to 8 circuits) B 3.2 A 3.7 2.0 3.4	
5.15 Circuit No.1 1.6 4.4	D=0.1

Retainer

PA FAMILY SERIES

Taping specifications



Circuits	Taping dimensions (mm)			Reel dimensions (mm)	Q'ty / reel	
Circuits	F	S	W	W ₁	Top entry type	Side entry type
2 to 5	11.5	-	24.0	25.5	500	1,000
6, 7	14.2	28.4	32.0	33.5	500	1,000
8 to 13	20.2	40.4	44.0	45.5	500	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.
- 2. Specifications are subject to change without prior notice.