

承 认 书

SPECIFICATION FOR APPROVAL

客 户

CUSTOMER

品 名

PART NAME

1.5mm spacing pressure welding bar connectors

料 号

PART NO.

1.5T-10单排带扣系列

样品提供(SAMPLE PROVIDE)		
工程 Engineering	业务 Sales	核准 Approval

客户承认(CUSTOMER APPROVAL)		
工程 Engineering	品管 Q.C	核准 Approval

备注 (NOTE) :

地址：中国·广东省东莞市塘厦镇莆心湖大道北5号

电话：+86-0769-87297888/87286388

传真：+86-0769-87286228

邮件：sales5@jdlh.com

网址：Http://www.jdlh.com

1.5T-10 SERIES

Scope: This specification covers the 1.5mm spacing WIRE TO BOARD connector series.

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FILE NO	ENS008	APPROVAL	CHECK	DRAWING
ECR/N NO	New spec			

[1. Product name and part number]

Product Name	Part Number
Termina	1.5T-10-TG2/TM2-A0
Housing	1.5T-10-YG1/YM1-2xNP-S 1.5T-10-YG1/YM1-NP-S 1.5T-10-YG1/YM1-2xNP 1.5T-10-YG1/YM1-NP
Wafer Assembly ST. (DIP/SMT)	1.5T-10-WL8/WH3-2xNP-S 1.5T-10-WL8/WH3-2xNP 1.5T-10-WL8/WH3-NP-S 1.5T-10-WL8/WH3-NP
Wafer Assembly R.A (DIP/SMT)	1.5T-10-WR8/WJ3-2xNP-S 1.5T-10-WR8/WJ3-2xNP 1.5T-10-WR8/WJ3-NP-S 1.5T-10-WR8/WJ3-NP

[2. Ratings and applicable wires]

ITEM	STANDARD
Rated Voltage	250V DC/AC (rms)
Rated Current	2.0A (AWG. #24)
Applicable wires	AWG. #24~#30
Insulation O.D	Ø0.7mm~Ø1.15
Ambient temperature	-25°C ~ +85°C *

* : Including terminal temperature rise.

[3. Performance]

3-1. Electrical Performance

ITEM		Test condition	Requirement
3-1-1	Contact resistance	Mate connectors and measured by dry circuit, 20mV MAX. 10mA. Mated Length : 50mm (AWG. #24) (JIS C5402-2-1/MIL-STD-1344, method 3004.1)	20mΩ (max.)
3-1-2	Insulation resistance	Mate connectors and apply 500V DC between adjacent terminals or ground. (JIS C5402-3-1/MIL-STD-202 method 302)	500MΩ (min.)
3-1-3	Dielectric strength	Mate connectors and apply 500V AC (rms) for 1 minute between adjacent terminal or ground.Trip current 2mA. (JIS C5402-4-1/MIL-STD-202 Method 301)	No breakdown and flashover
3-1-4	Contact resistance on crimped portion	Crimp the maximum applicable wire on to the terminal and measured by dry circuit, 20mV MAX., 10mA. Wire Length : 50mm (AWG. #24) (JIS C5402-2-1/MIL-STD-1344, method 3004.1)	20mΩ (max.)

3-2. Mechanical Performance

ITEM		Test condition	Requirement
3-2-1	Insertion force and withdrawal force	Insert and extract connectors at a speed of 25±3mm/minute	Refer to paragraph 5~6

3-2-2	Crimping pull out force	Fix the crimped terminal to the jig, apply axial pull out force on the wire at the speed rate of 12.7 mm / min. (JIS C5402-16-4)	Wire size		#24	#26	#28	#30
			1	width	1.5±0.1			
				height	0.70 ~0.75	0.57 ~0.62	0.52 ~0.57	0.47 ~0.52
			2	width	1.75			
				height	1.50	1.45	1.10	1.00
			Crimp strength	3.0kgf min	1.8kgf min	1.5kgf min	0.8kgf min	
			1: CONDUCTOR(mm) 2: INSULATION(mm)					
3-2-3	Terminal insertion force	Insert the crimped terminal into the housing at a speed of 12.7 mm / minute	0.5kgf (max.)					
3-2-4	Terminal/ Housing retention force	Apply axial pull out force at the speed rate of 12.7 mm / minute on the crimped terminal assembled in the housing.	1.0kgf (min.)					
3-2-5	Header pin Retention Force	Apply axial pull out force at the speed rate of 12.7 mm / minute on the terminal assembled in the header.	1.0kgf (min.)					

3-3. Environmental Performance and Others

ITEM		Test condition	Requirement	
3-3-1	Repeated insertion/ withdrawal	Mate connector up to 30 cycles repeatedly at a rate of 10 cycles/ minute. After which test the contact resistance	Contact resistance	40mΩ (max.)
3-3-2	Temperature rise	Mate connectors and all crimp terminals shall be connected in a direct series. The temperature rise shall be measured when the terminal reaches terminal equilibrium allowable current. (UL498)		30°C (max.)
3-3-3	Vibration	Mate connectors and subject to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude : 1.52mm P-P Frequency : 10~55~10 Hz in 1 minute. Duration : 2 hours in each X.Y.Z.axes. (JIS C 60068-2-6/MIL-STD-202 Method 201)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Discontinuity	1 microsecond MAX.
3-3-4	Shock	5Mate connectors and subject to the following shock conditions. 3 shocks shall be applied along 3 mutually perpendicular axes, passing DC 1 mA current during the test. (Total of 18 shocks) Test pulse : Half Sine Peak value : 490 m/s ² (50 G) Duration : 11 ms (JIS C60068-2-27/MIL-STD-202 Method 213)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Discontinuity	1μ sec (max.)
3-3-5	Heat resistance	Mated connector shall be placed in an oven for 96±4 hours at +105±2°C. (MIL-STD-202 Method 108)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)

3-3-6	Cold resistance	Mated connector shall be placed in a temperature chamber for 96±4 hours at -25±3°C (JIS C60068-2-1)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
3-3-7	Humidity	Mate connectors and expose to 85°C, relative humidity 85% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (MIL-STD-202 Method 103)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Dielectric strength	Must meet 3-1-3
3-3-8	Salt spray	Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution Concentration : 5±1 % Spray time : 24±4 hours Ambient temperature : 35±2 °C (JIS 60068-2-11/MIL-STD-202 Method 101)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
3-3-9	Solderability	Dip terminal or pin into flux, and immerse the area up to 0.2mm from the bottom of the housing into solder molten at 245±5°C for 5±0.5 sec	95% of immersed area must show no voids and pin holes.	
3-3-10	Resistance to soldering heat	dip terminal or pin into solder molten at 260±5°C for 5±0.5sec	No Damage in appearance	

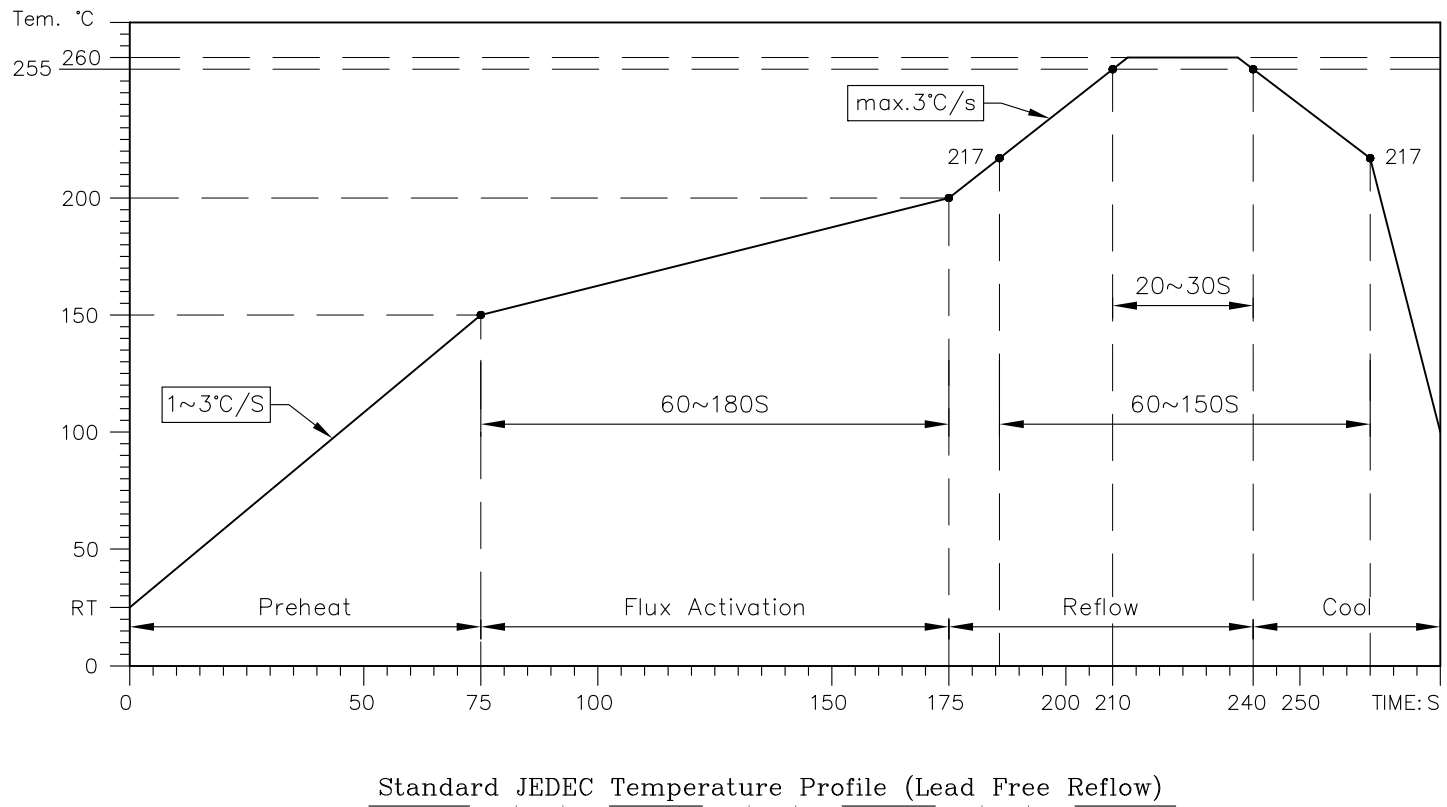
[4. Insertion force and withdrawal force]

[UNIT:Kgf]

Circuits	Insertion (MAX.)	
	Initial	30th
2	2.0	0.30
3	2.5	0.35
4	3.0	0.55
5	3.5	0.60
6	4.0	0.65
7	4.5	0.70
8	5.0	0.75
9	5.5	0.80
10	6.0	0.85
11	6.5	0.90
12	7.0	0.95

Circuits	Insertion (MAX.)	Withdrawal (MIN.)
	Initial	30th
13	7.5	1.00
14	8.0	1.05
15	8.5	1.10
16	9.0	1.15
17	9.5	1.20
18	10.0	1.25
19	10.5	1.30
20	11.0	1.35

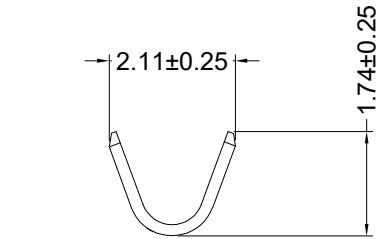
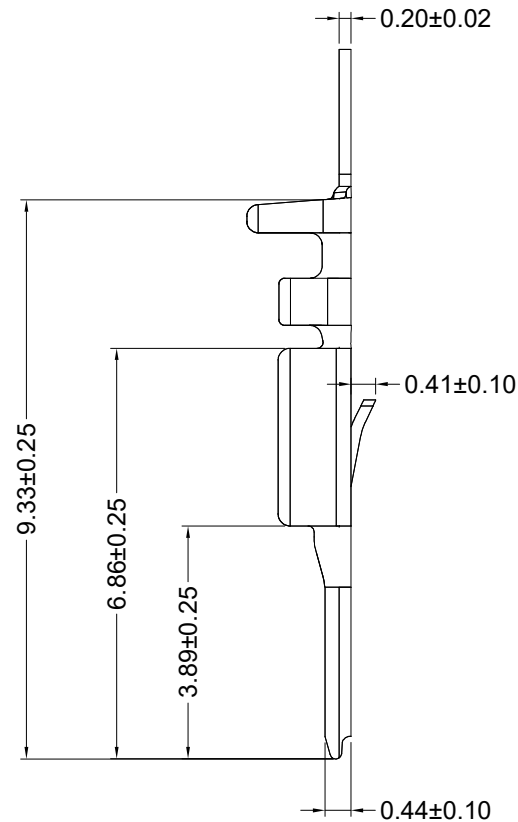
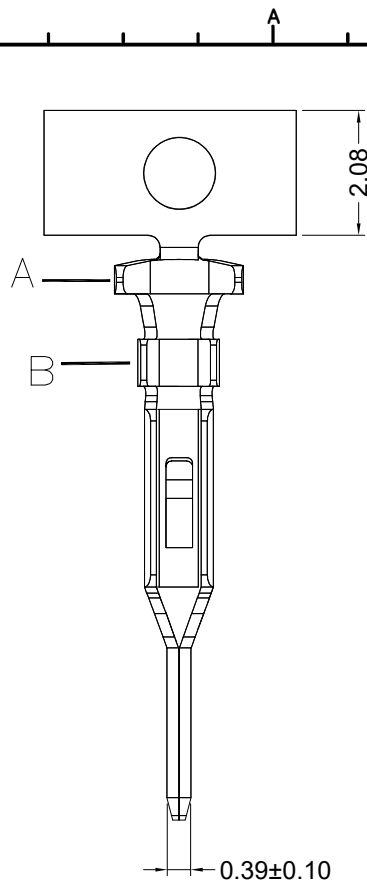
[5. Reflow condition]



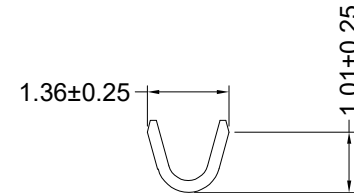
[6. Product shape, Dimensions and materials]

<REFER TO THE DRAWING>

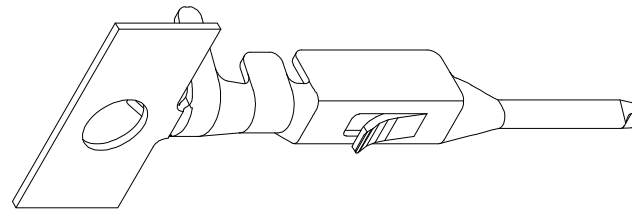
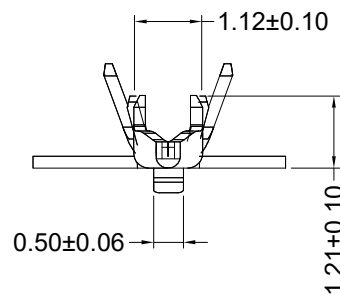
备注：所有原料、零部件均符合最新ROHS2.0及REACH



SECTION A-A



SECTION B-B



Notes:

1. Material: Phosphor bronze, JIS C5191R-H, HV200 $\pm$ 5°
2. Finish: Tin-plating
3. Applicable Wires: AWG.#28~#24



GENERAL TOLERANCE	
XX. $\pm$ 0.40	
X. $\pm$ 0.30	
.X $\pm$ 0.25	X.* $\pm$ 2°
.XX $\pm$ 0.15	.X.* $\pm$ 1°

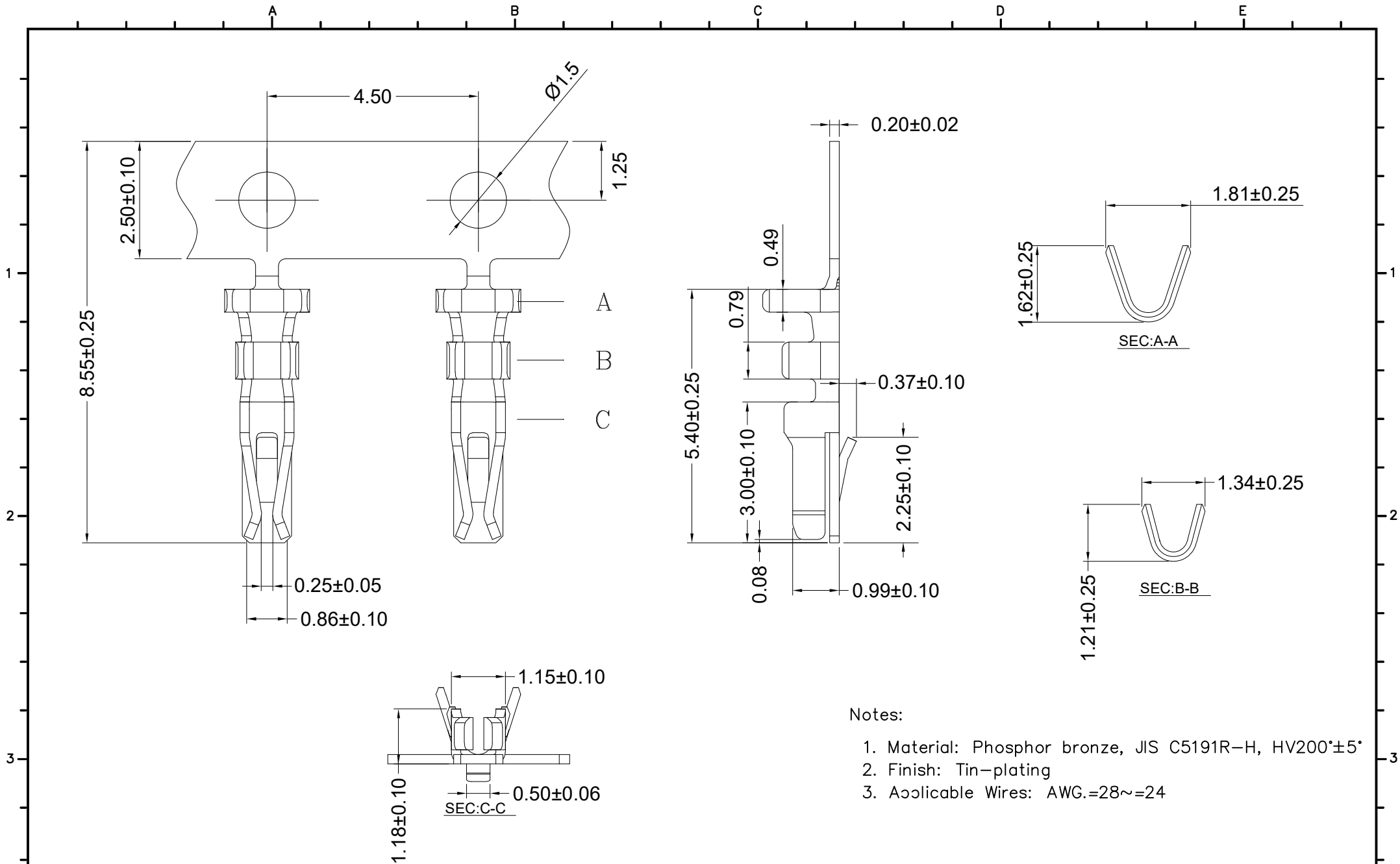
SCALE:	4:1
UNIT:	mm
SIZE:	A4

DRAWN:	罗声荣
CHECK:	于 腾
APPROVE:	肖志军

DATE:	2022. 05. 06
DATE:	2022. 05. 06
DATE:	2022. 05. 06

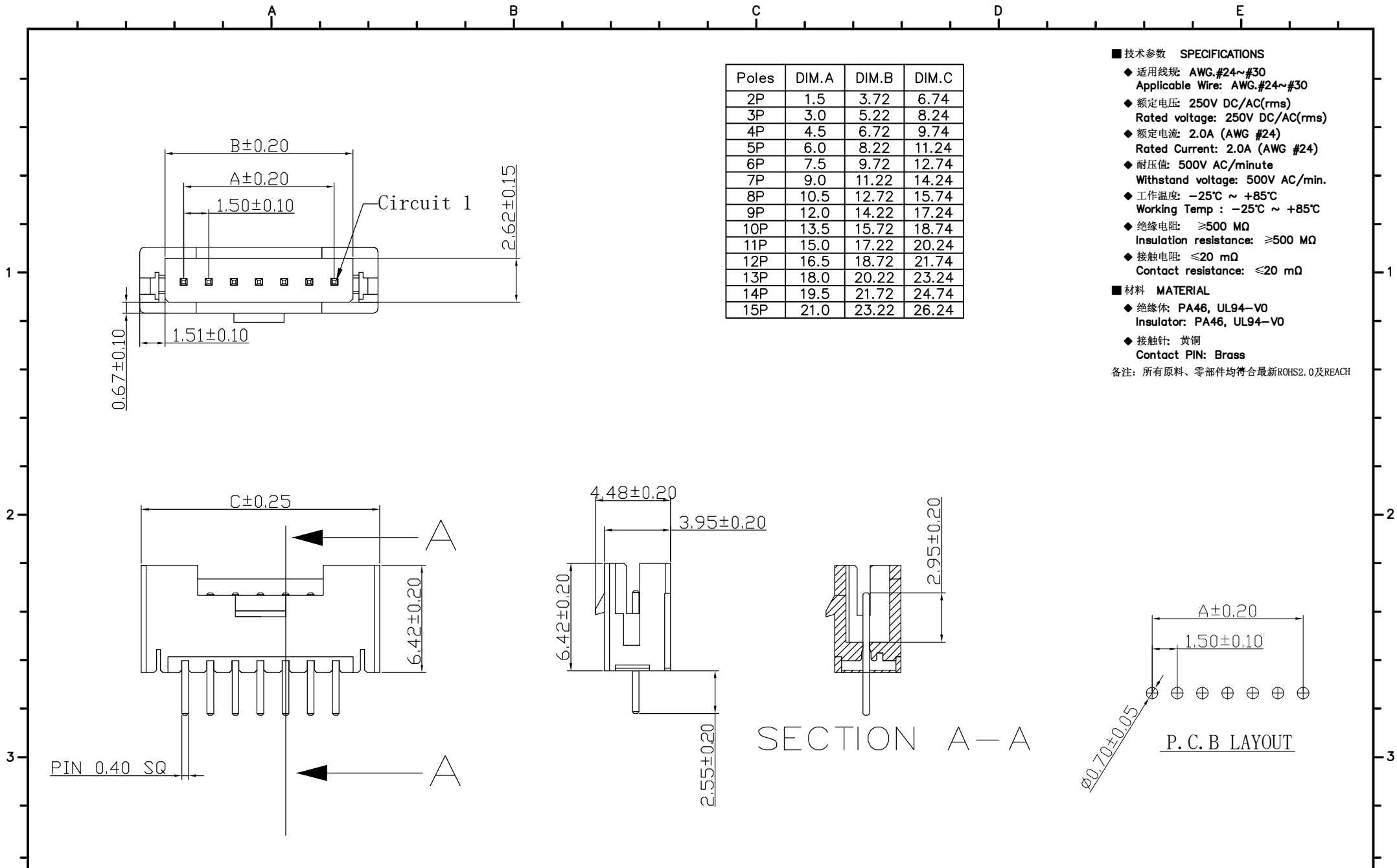
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PARTS NO:	1.5T-10-TG2-A0

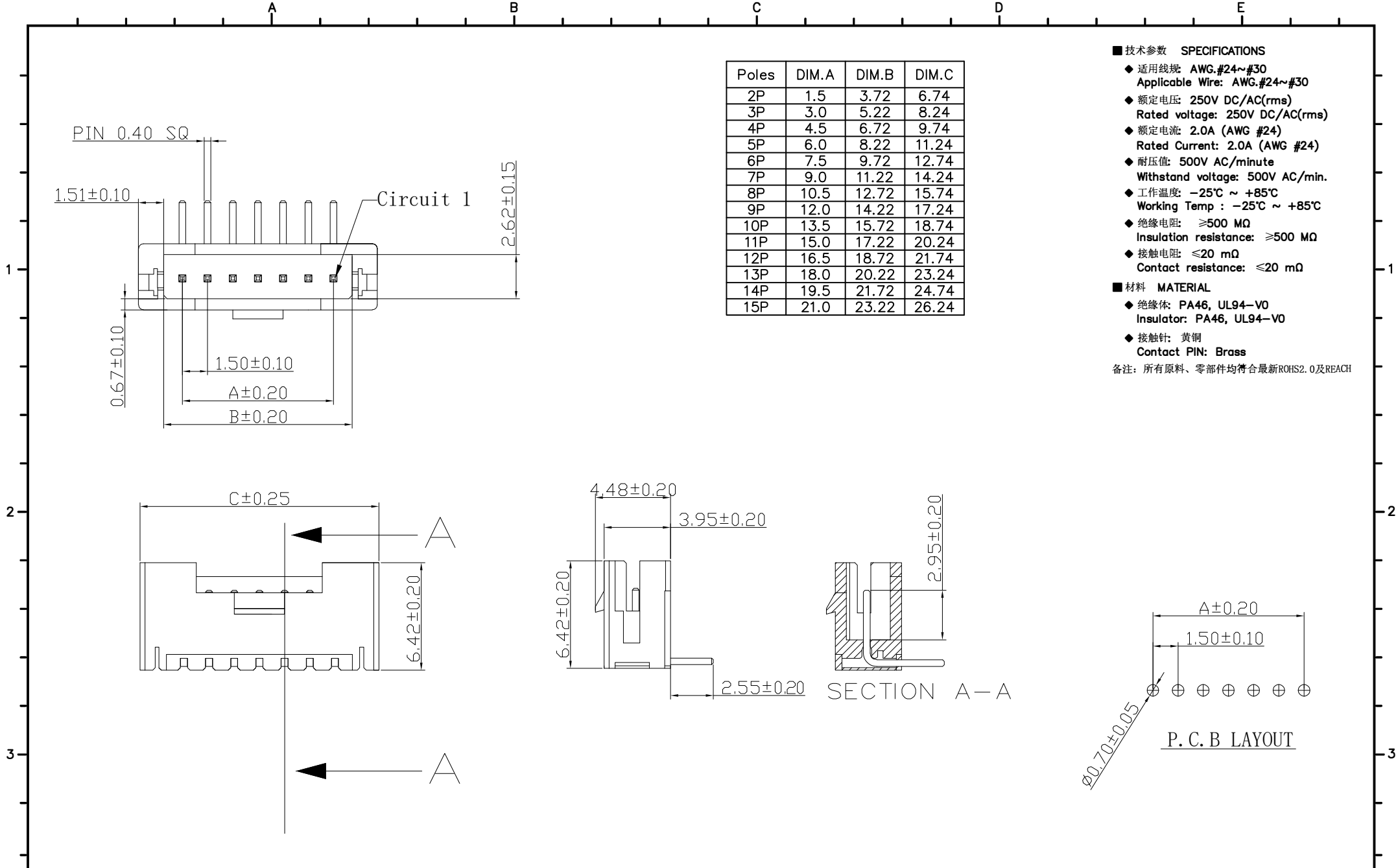
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工程图	SHEET: 1/1



Notes:

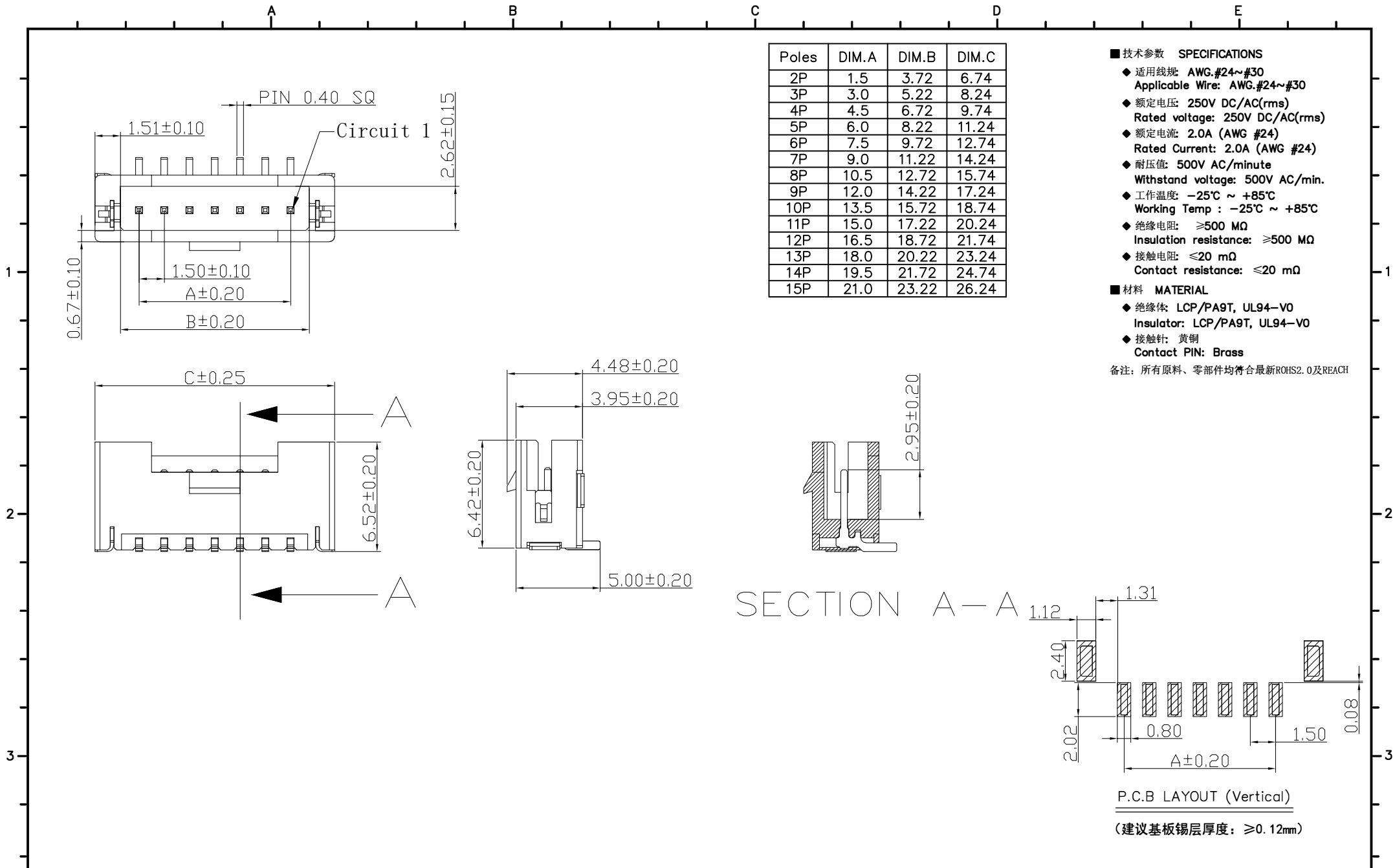
1. Material: Phosphor bronze, JIS C5191R-H, HV200 $\pm 5^\circ$
2. Finish: Tin-plating
3. Applicable Wires: AWG.=28~24





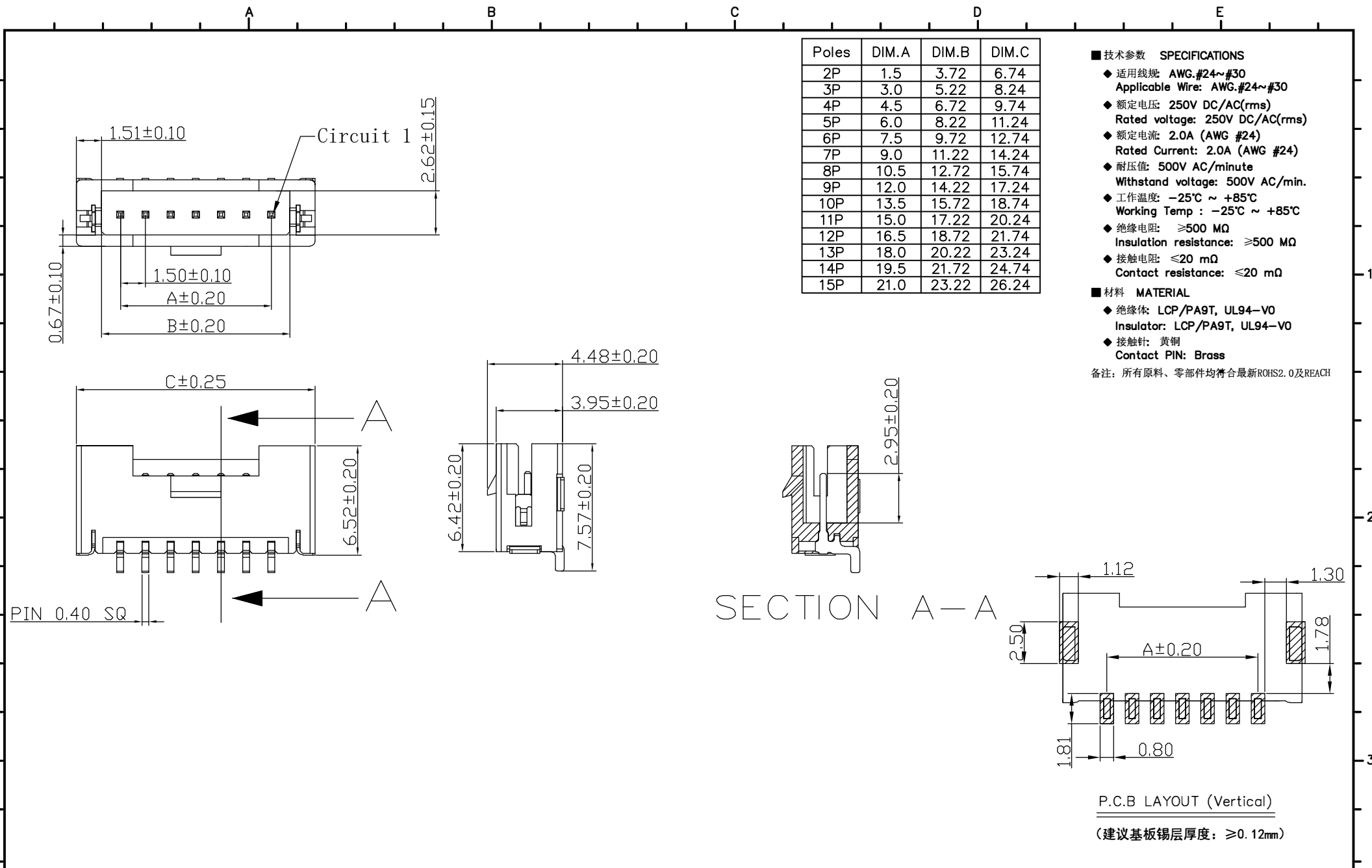
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	XX. ±0.40		UNIT: mm		CHECK:	DATE:			
	X. ±0.30		SIZE: A4		APPROVE:	DATE:	PARTS NO: 1.5T-10-WJ3-NP-S		SHEET: 1/1
	.X ±0.25	X.* ± 2°							
	.XX ±0.15	.X.* ± 1°							

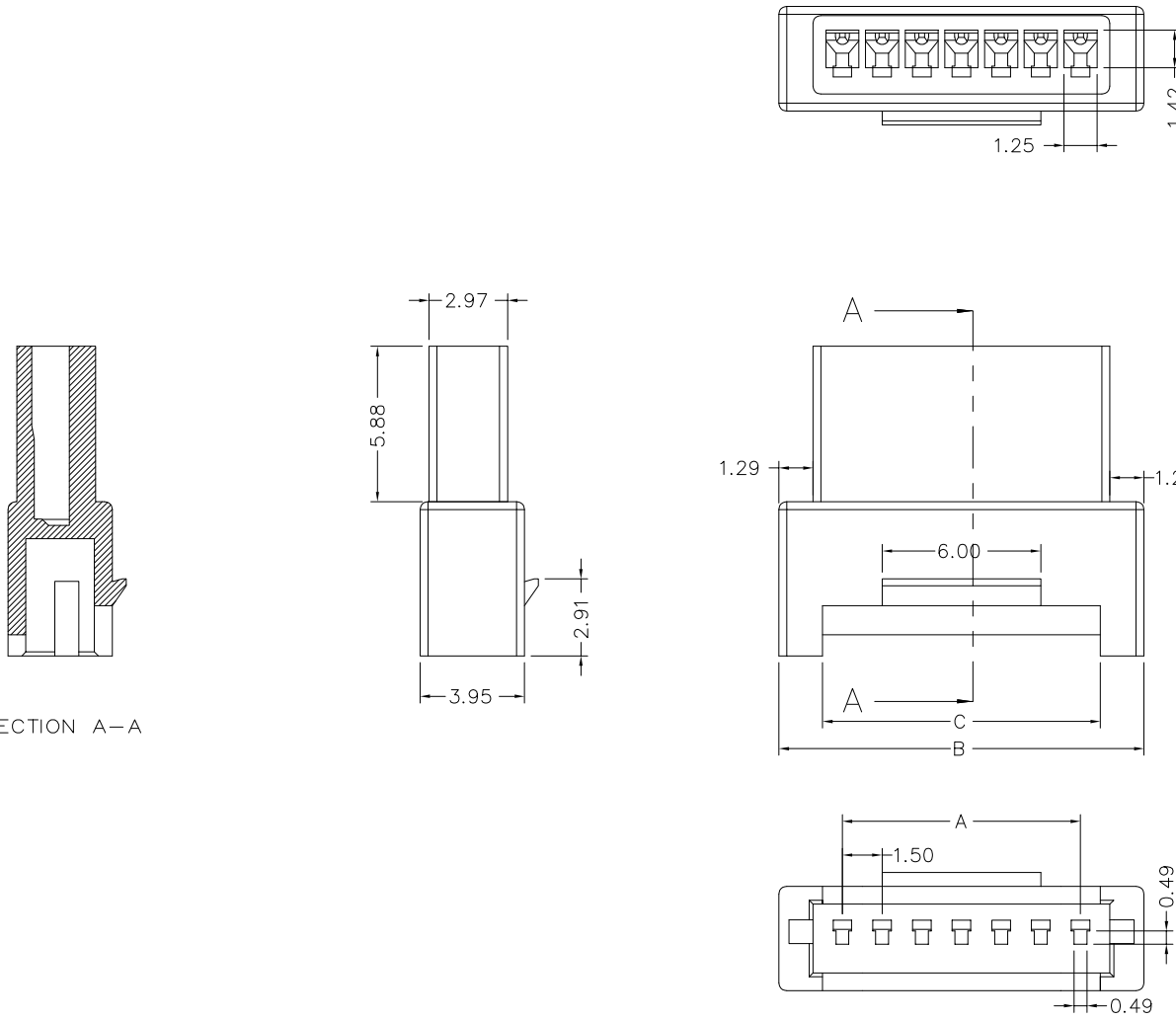
DWG NO: E:\DWG\Production\ZH1.5



 DongGuan JinDa Electronics Co., Ltd. 东莞市津达电子有限公司	GENERAL TOLERANCE		SCALE: 3.5:1		DRAWN: 罗声荣		DATE: 2023.8.24		DOC. NO:		TITLE:		REV.	
	XX. ±0.40		UNIT: mm		CHECK:		DATE:		PARTS NO: 1.5T-10-WL8-NP-S		工程图		A	
	X. ±0.30		SIZE: A4		APPROVE:		DATE:						SHEET:	
	.X ±0.25	X.* ± 2°									1/1			
.XX ±0.15	.X.* ± 1°													

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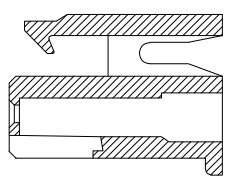
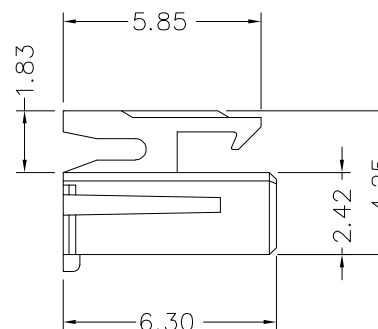
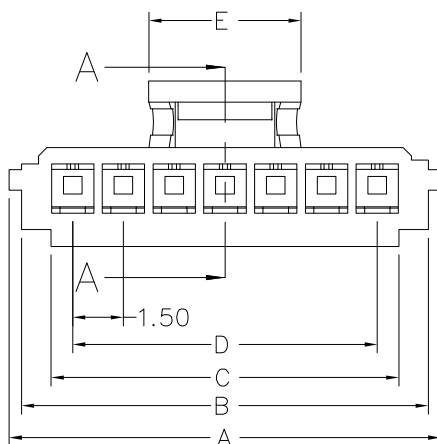
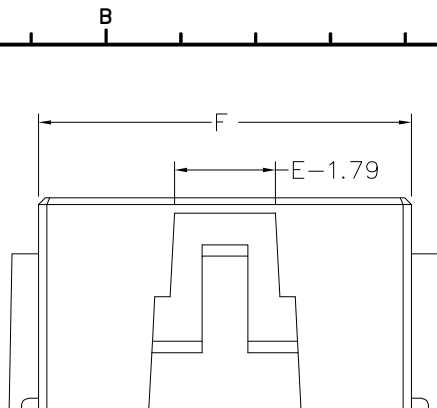




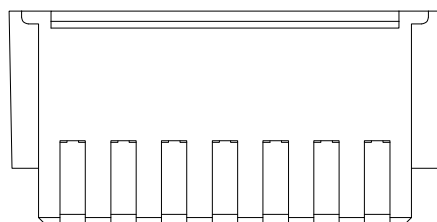
- 技术参数 SPECIFICATIONS
- ◆ 适用线规: AWG.#24~#30
Applicable Wire: AWG.#24~#30
 - ◆ 额定电压: 250V DC/AC(rms)
Rated voltage: 250V DC/AC(rms)
 - ◆ 额定电流: 2.0A (AWG #24)
Rated Current: 2.0A (AWG #24)
 - ◆ 耐压值: 500V AC/minute
Withstand voltage: 500V AC/min.
 - ◆ 工作温度: -25°C ~ +85°C
Working Temp : -25°C ~ +85°C
 - ◆ 绝缘电阻: ≥500 MΩ
Insulation resistance: ≥500 MΩ
 - ◆ 接触电阻: ≤20 mΩ
Contact resistance: ≤20 mΩ
- 材料 MATERIAL
- ◆ 胶壳: 尼龙66, UL94-V0
Housing: PA66, UL94-V0
- 备注: 所有原料、零部件均符合最新RoHS2.0及REACH

Poles	DIM.A	DIM.B	DIM.C
2P	1.50	6.30	3.00
3P	3.00	7.80	4.50
4P	4.50	9.30	6.00
5P	6.00	10.80	7.50
6P	7.50	12.30	9.00
7P	9.00	13.80	10.50
8P	10.50	15.30	12.00
9P	12.00	16.80	13.50
10P	13.50	18.30	15.00
11P	15.00	19.80	16.50
12P	16.50	21.30	18.00
13P	18.00	22.80	19.50
14P	19.50	24.30	21.00
15P	21.00	25.80	22.50
16P	22.50	27.30	24.00
17P	24.00	28.80	25.50
18P	25.50	30.30	27.00
19P	27.00	31.80	28.50
20P	28.50	33.30	30.00

Poles	DIM.A	DIM.B	DIM.C	DIM.D	DIM.E
2P	5.25	4.52	2.77	1.50	3.52
3P	6.75	6.02	4.27	3.00	5.02
4P	8.25	7.52	5.77	4.50	6.52
5P	9.75	9.02	7.27	6.00	8.02
6P	11.25	10.52	8.77	7.50	9.52
7P	12.75	12.02	10.27	9.00	11.02
8P	14.25	13.52	11.77	10.50	12.52
9P	15.75	15.02	13.27	12.00	14.02
10P	17.25	16.52	14.77	13.50	15.52
11P	18.75	18.02	16.27	15.00	17.02
12P	20.25	19.52	17.77	16.50	18.52
13P	21.75	21.02	19.27	18.00	20.02
14P	23.25	22.52	20.77	19.50	21.52
15P	24.75	24.02	22.27	21.00	23.02
16P	26.25	25.52	23.77	22.50	24.52
17P	27.75	27.02	25.27	24.00	26.02
18P	29.25	28.52	26.77	25.50	27.52
19P	30.75	30.02	28.27	27.00	29.02
20P	31.50	31.52	29.77	28.50	30.52



SECTION A-A



技术参数 SPECIFICATIONS

- ◆ 适用线规: AWG. #24~#30
Applicable Wire: AWG. #24~#30
- ◆ 额定电压: 250V DC/AC(rms)
Rated voltage: 250V DC/AC(rms)
- ◆ 额定电流: 2.0A (AWG #24)
Rated Current: 2.0A (AWG #24)
- ◆ 耐压值: 500V AC/minute
Withstand voltage: 500V AC/min.
- ◆ 工作温度: -25°C ~ +85°C
Working Temp : -25°C ~ +85°C
- ◆ 绝缘电阻: ≥500 MΩ
Insulation resistance: ≥500 MΩ
- ◆ 接触电阻: ≤20 mΩ
Contact resistance: ≤20 mΩ

材料 MATERIAL

- ◆ 胶壳: 尼龙66, UL94-V0
Housing: PA66, UL94-V0

备注: 所有原料、零部件均符合最新RoHS2.0及REACH

