

# Product Specifications

## 产 品 承 认 书

客 户 Customer: \_\_\_\_\_  
部品编号 Part Number: 10036  
产品名称 Description: 10036  
客户料号 Code NO: \_\_\_\_\_

样品提供 (SAMPLE PROVIDE)		
工程 Engineering	业务 Sales	核准 Approval
张 名	潘云丹	张 名

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

IS09001:2015      IS014001:2015

YUEQING HONGYI ELECTRONICS CO., LTD

乐清市宏一电子有限公司

ADD: First Industrial Park, Houyu Village, ShiFan, Yueqing, Zhejiang China  
地此: 浙江省乐清市石帆镇后屿村第一工业园

TEL:0577-62380521

FAX: 0577-62381979    P.C:325608

http: //www.zhehongyi.com

E-MAIL:yaohongxiao88@126.com

# 产 品 承 认 书 目 录

1、封面	1-1
2、目录	2-2
3、技术规范	3-9
4、产品图纸	10-13

## 1、SCOPE

### 适用范围

**The contents of specifications for 10036 series connector strip, including product performance, test methods and inspection requirements**

本规格书内容适用于 10036 系列条形连接器，包含了产品的性能、试验方法和检验要求

## 2、APPLICABLE STANDARDS

### 适用的标准

- |     |          |  |
|-----|----------|--|
| 2.1 | GB/T2421 | <b>Testing method for Environmental of Electrical Connectors Class 1 :</b><br>General Principles<br>电工电子产品环境试验 第一部分 总则 |
| 2.2 | GB/T2423 | <b>Testing method for Environmental of Electrical Connectors</b><br>电工电子产品环境试验方法                                       |
| 2.3 | GB/T2424 | <b>Testing method for Environmental of Electrical Connectors</b><br>电工电子产品环境试验导则                                       |
| 2.4 | GB/T5095 | <b>Testing Procedure/method for components of electric equipment</b><br>电子设备用机电元件基本试验规程及测量方法                           |

## 3、USE CONDITION

### 使用条件

- 3.1 Ambient temperature Range:-25℃~+85℃**  
环境温度：-25℃~+85℃
- 3.2 Applicable Wire Sizes:AWG#28~#32**  
适用线规：AWG#28~#32
- 3.3 Applicable PC board thickness:0.6~1.2mm**  
适用 PC 板厚度：0.6~1.2mm

## 4、Appearance and Dimension

### 外观及尺寸

- 4.1 Appearance:Product surface without defect、dirt、crack、and mechanical damang, Contact without rust,plating not oxided and not peeled.**  
产品表面不应有对制品有害的缺陷、污垢、裂痕及机械损伤；接触件无锈蚀、镀层氧化、脱落等现象.
- 4.2 Dimension:According to drawings**  
外形尺寸：依照附图
- 4.3 Exchangable:Exchangable with same specification products.**  
互换性：相同规格应能互换

## 5、Material

### 材 料

P/N 零件名称	Type 类 型	Material 材 料	Finish 表面处理	Explain 说 明
Terminal 端 子	Contact 插 簧	Phosphor bronze 锡青磷铜 厚 0.12mm	Tin Plating:3~5 μ m 镀锡: 3~5 μ m	RoHS2.0
Housing 孔 座	Plastic 塑 壳	Nylon66 UL94V-0	Color: White 颜色: 白色	
Wafer 卧贴针座	Plastic 塑 壳	LCP UL94V-0	Color: Beige 颜色: 米色	
	Contact 插 针	Phosphor bronze 锡青磷铜 厚 0.20mm	Tin Plating:2.5~5 μ m 镀锡: 2.5~5 μ m	
	Solder tab 焊护耳	Phosphor bronze 锡青磷铜 厚 0.20mm	Tin Plating:3~5 μ m 镀锡: 3~5 μ m	
Wafer 立贴针座	Plastic 塑 壳	LCP UL94V-0	Color: Beige 颜色: 米色	
	Contact 插 针	Phosphor bronze 锡青磷铜 厚 0.20mm	Tin Plating:2.5~5 μ m 镀锡: 2.5~5 μ m	
	Solder tab 焊护耳	Phosphor bronze 锡青磷铜 厚 0.20mm	Tin Plating:3~5 μ m 镀锡: 3~5 μ m	

## 6、Electrical Performance

### 电 气 性 能

N0. 序号	Ltem 项 目	Test mode 试验方法	Requirement 技术要求
6.1	Current Rated 额定电流		1A AC DC
6.2	Voltage Rated 额定电压		125V AC DC
6.3	ContactResistance 接触电阻	Male female cooperation, open voltage less than 20mV, current 100mA detection connector at both ends  公母配合,开放电压20mV 以下,电流100mA 检测连接器连接器两端	Initial:20m Ω Max 初始: 20m Ω Max  After Test: 40m Ω Max 试验后: 40m Ω Max
6.4	withstandvoltage 耐电压	Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground  公母配合,在相邻端子,端子与地片之间,使用500V的交流电1 分钟,检测连接器	NoBreakdownandFlashover 不出现中断等情况
6.5	InsulationResistance 绝缘电阻	Mate connectors, apply 500V DC between adjacent terminal or ground  公母配合,在相邻端子,端子与地片之间,使用500V的直流电,检测连接器	100M Ω Min

## 7、Mechanical Performance:

### 机械性能

N0. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
7.1	Terminal crimping wire strength 端子压接导线强度	Fix the crimped terminal, apply axial pull out force on the wire	More than 13N $\geq 13N$
		AWG#28 wire AWG#28 导线	More than 8N $\geq 8N$
		AWG#30 wire AWG#30 导线	More than 6N $\geq 6N$
7.2	Terminal Insertion Force 端子插入力	Insert the crimped terminal into the housing 铆线后之端子插入 Housing 所需最大力量	Per contact: 6N Max 单一接触点: 6N Max
7.3	Terminal/ Housing Retention Force 端子保持力	Apply axial pull out force at the speed rate of 25.4±3mm/minute on the terminal assembled in the Housing 以每分 25.4±3mm 的速率,将端子从 Housing 内轴向拔出的力量	Per contact: 6N Min 单一接触点: 6N Min
7.4	Insertion & withdraw Force 插拔力	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute 以每分 25.4±3mm 的速率插入和拔出	Refer to paragraph 9 参照第 9 项
7.5	Pin Retention Force Pin 针保持力	Apply axial push force at the speed rate of 25.4±3mm/minute 以每分 25.4±3mm 的速率,将 PIN 针从 Wafer 内轴向拔 出的力量	Per contact: 3N Min 单一接触点: 3N Min

## 8、Endurance Characteristics:

### 环境性能

N0. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
8.1	Repeated Insertion/ Withdrawal 重复插拔	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute 以每分不超过 10 次的速率,将公母插拔 30 次	Contact Resistance: 40 mΩ Max 接触电阻: 40 mΩ Max
8.2	Temperature Rise 温升测试	Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise 公母连接器配合后, 加载额定电流直到温度上升到稳定 状态, 然后再测量温升	30°C Max

NO. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
8.3	Vibration test 振动测试	Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials  振幅: 1.5mm P-P 时间: 10~55~10 HZ in 1 minute 持续时间: 每轴向 2 小时	Appearance: No damage 外观: 无异常  Contact Resistance 40 m Ω Max 接触电阻:40 m Ω Max  current Discontinuity: 1 micro second Max 电流中断: 1 μ sec Max
8.4	Heat Resistance 耐热性	85±2℃,96 hours	Appearance: No damage 外观: 无异常  Contact Resistance 40 m Ω Max 接触电阻:40 m Ω Max
8.5	Humidity 耐湿性	Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours  温度: 40±2℃ 湿度: 90~95%(RH) 持续时间: 96 hours	Appearance: No damage 外观: 无异常  Contact Resistance: 40m Ω Max 接触电阻:40 m Ω Max  Insulation Resistance: 100M Ω Min 绝缘电阻: 100M Ω Min  current Discontinuity: 1 micro second Max 电流中断: 1 μ sec Max
8.6	Temperature Cycling 温度变化	5 cycles of: a) -25℃ 30 minutes. b) +85℃ 30 minutes  从-25℃持续 30 分钟升至+85℃持续 30 分钟,循 环 5 次	Appearance: No damage 外观: 无异常  Contact Resistance: 40m Ω Max 接触电阻:40 m Ω Max
8.7	Salt Spray 盐水喷雾	24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃  在温度 35±2℃,盐水浓度 5±1%下,盐水喷雾 24±1 小时	Appearance: No damage 外观: 无异常  Contact Resistance: 40m Ω Max 接触电阻:40 m Ω Max

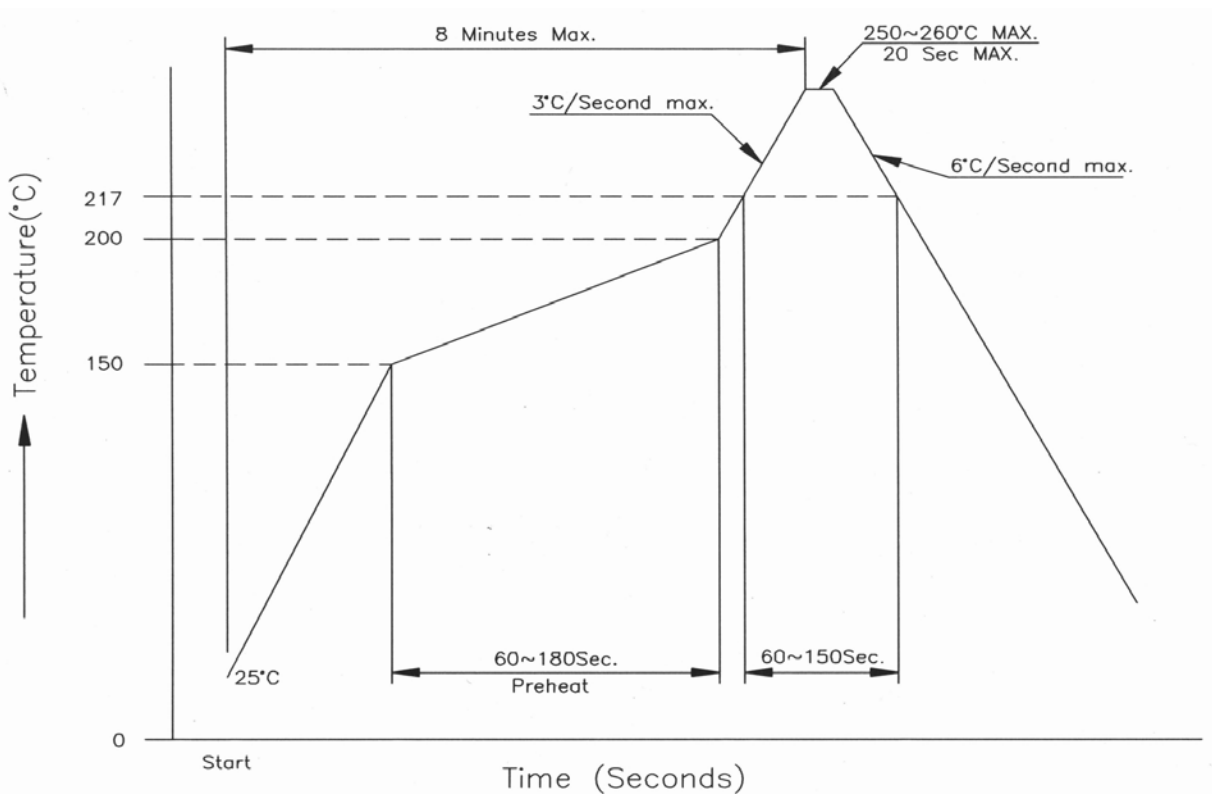
N0. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
8.8	Solder ability 可焊性	Soldering Time: 3~5second. Solder Temperature: 245±5℃ 焊接时间: 3~5 秒. 焊接温度: 245±5℃	浸渍面积需 95% 以上 95% of immersed area must show no voids, pin holes.
8.9	Solder- Resistance 焊锡耐热性	Soldering time:5~10 sec solder. Temperature:255+5/-5℃ 焊接时间: 5~10 秒. 焊接温度: 255+5/-5℃	Appearance: No damage 外观: 无异常

#### 9、综合插入力及拔出力 INSERTION/WITHDRAWAL FORCE

PIN NO	At Initial 初始值		At 30th 插拔 30 次
	Insertion force (N Max) 插入力(最大值)	Pullout force (N Max) 拔出力(最小值)	Pullout force (N Max) 拔出力(最小值)
2	20	2	2
3	20	2	2
4	20	2	2
5	30	3	3
6	30	3	3
7	30	3	3
8	40	4	4
9	40	4	4
10	40	4	4
11	50	5	5
12	50	5	5

## 10、 SMT lead-free process temperature curve

SMT 无铅工艺温度曲线



注记: 由于 P.C 板等焊接装置改变条件,所以请预先用自己的装置检查回流焊的条件

Notes: Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, P.C. boards, and so on

## 11、 Caution

注意事项

**plastic because of characteristics with water after package is opened should avoid exposure to, the temperature is higher than 30 °C, humidity is higher than 60%RH in the environment, and in the 24 hours after all after use, to prevent subsequent reflow, wave soldering process to produce foaming phenomenon of deformation**

塑料因具有吸水之特性包装拆封后应避免暴露于, 温度高于 30°C, 湿度高于 60%RH 的环境中, 并在拆封后 24 小时内全数使用完毕, 防止后续回流焊、波峰焊制程产生起泡变形现象



## 12、Packaging Transportation Storage

包装、运输、贮存

### 12.1 Packaging

包装

- (1) **Terminal within the packaging for disc loading material packaging, plastic shell packaging for plastic bags, packaging bags, seat plates, tubes, mounted (paste) into the certificate, indicate the product name, specifications, quantity production date and other information**

端子内包装为盘装带料包装、胶壳内包装为塑料袋，针座包装为盘装、袋装，装（贴）入合格证，注明产品名称、规格型号、数量生产日期等信息

- (2) **Exterior package is carton, facing the packing list, the packing list marked with product name, specification model, quantity, date of dispatch.**

外包装为纸箱，贴装箱单、装箱单上注明产品名称、规格型号、数量、出货日期

- (3) **The product in the box must not rock**

产品在箱内不晃动

### 12.2 Transportation

运输

**Any vehicle can be adopted for the transportation, but moisture-proof and no mechanical damage, transport temperature to  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$**

允许用任何方式运输，但需避免雨雪直淋和阳光照射，不能有碰撞和挤压等机械损伤，运输环境温度为 $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$

### 12.3 Storage

贮存

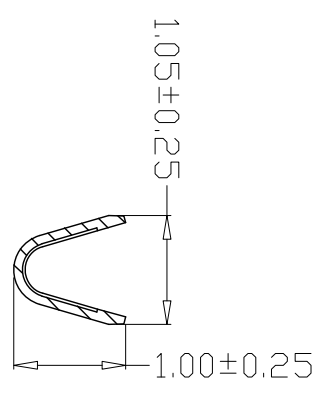
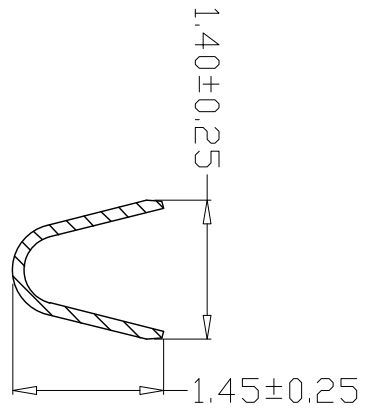
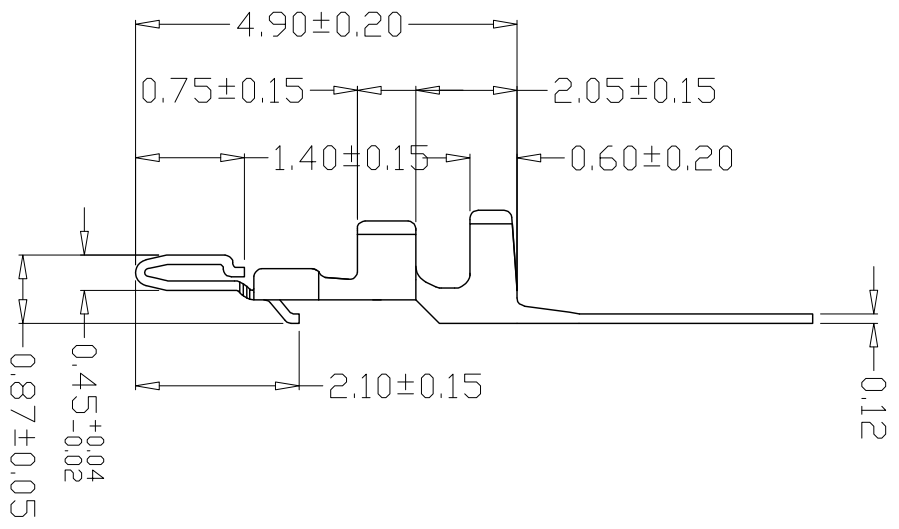
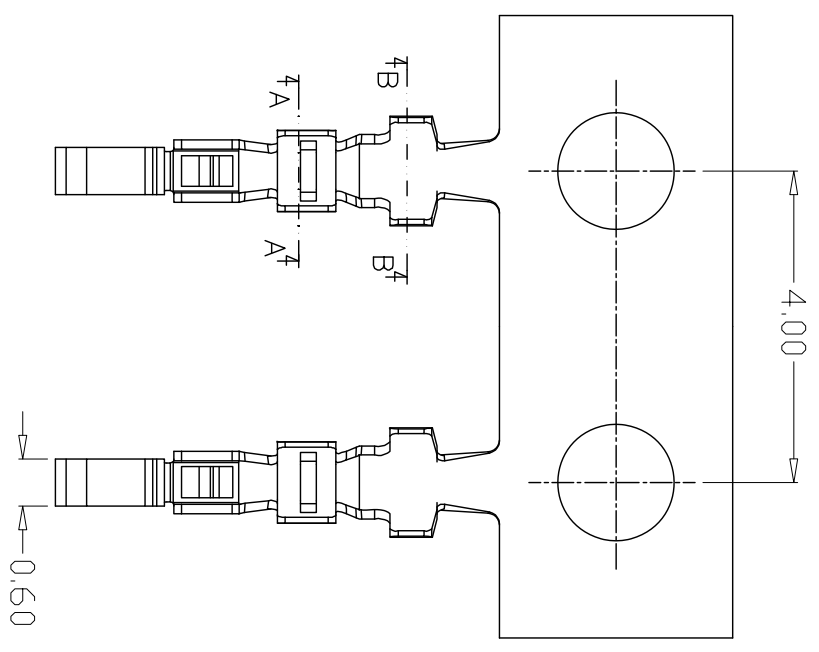
- (1) **The connector of packing finished should be in the ambient temperature between  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , Relative humidity  $\leq 80\%$ . To store in storehouse does not have acidic, alkaline air and other corrosive gas in the ambient air.**

包装完毕的连接器应在环境温度为 $-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ，相对湿度 $\leq 80\%$ ，周围空气中没有酸性，碱性及其它腐蚀性气体的库房中贮存

- (2) **Re-qualification test shall be conducted immediately while the storing duration exceed 6 months**

贮存期为6个月，超期6个月需重新检查

版本 REV.	日期 DATE	ECN NO.	变更内容 DESCRIPTION	制图 DRAWN



SEC. A-A

SEC. B-B

SPECIFICATIONS

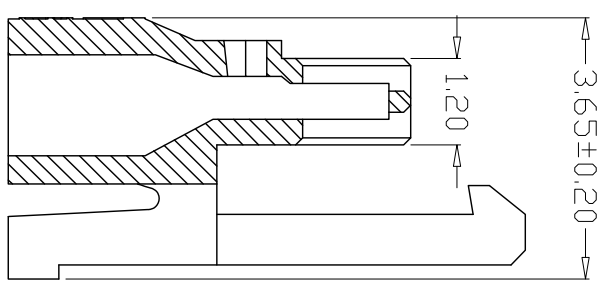
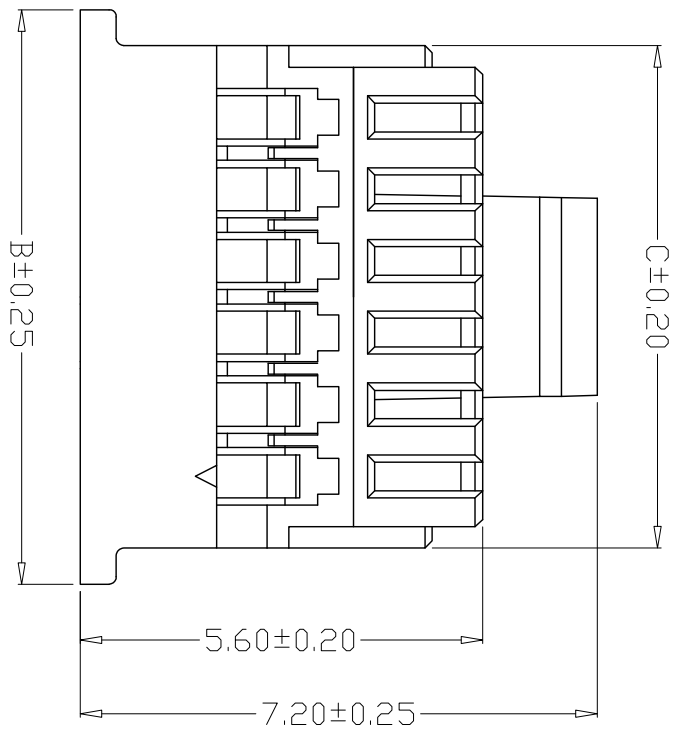
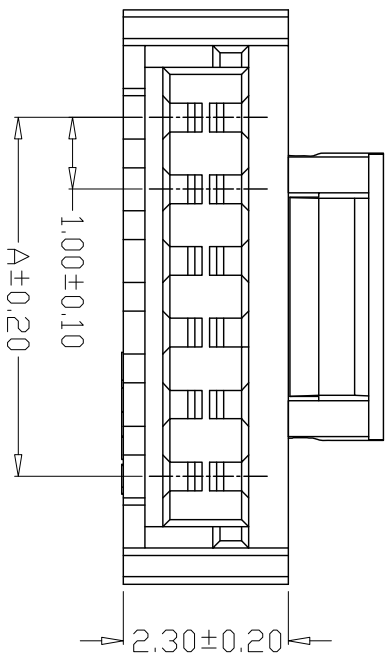
- 1、Current Rating: 1A AC, DC
- 2、Voltage Rating: 125V AC, DC
- 3、Temperature Range: -25°C~+85°C
- 4、Contact Resistance: 20mΩ Max
- 5、Insulation Resistance: 100MΩ Min
- 6、Withstanding Voltage: 500V AC/minute
- 7、Material: C5191 Tin-plated
- 8、Applicable Wire Sizes: AWG#28~32#

GENERAL TOLERANCE		制 图		钱岳生		料号		10036-T		版本	
X.X±0.25	X.±2°	DRAWING	2020.06.04	CHECK	张名	2020.06.05	PART NO.	10036-T	REV.	A	
X.XX±0.20		CHECK	张名	核 准	张名	2020.06.06	TITLE	10036端子	页次	1/1	
X.XXX±0.10		APPROVAL	张名	单 位	张名	2020.06.06	CITM. NO.		SHEET		
		单 位	MM	比 例	1:1		乐清市宏一电子有限公司				
		单 位	SCALE				YUEQING HONGYI ELECTRONICS CO., LTD				

版本 REV./ DATE	日期 DATE	ECN NO.	变更内容 DESCRIPTION	制图 DRAWN

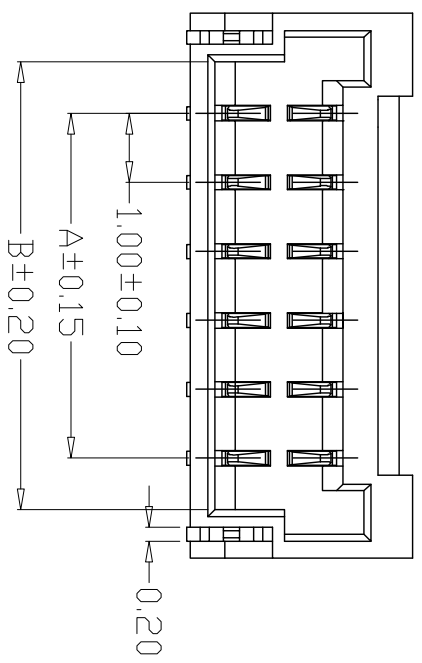
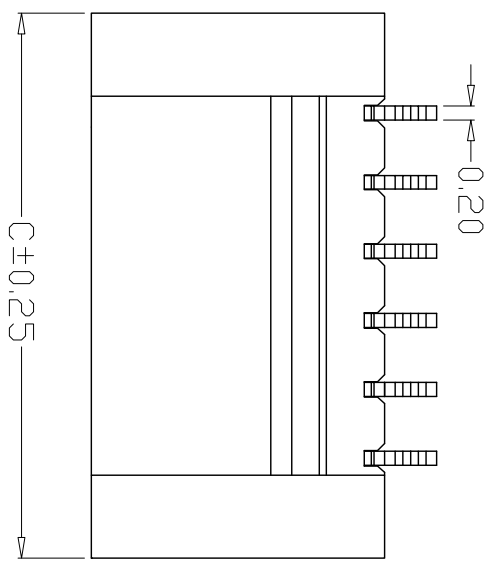
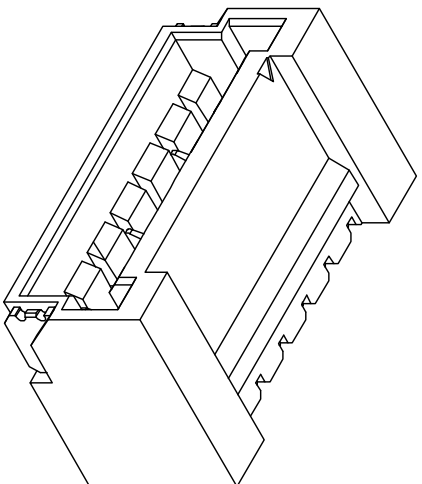
SPECIFICATIONS

- 1、 Current Rating: 1A AC, DC
- 2、 Voltage Rating: 125V AC, DC
- 3、 Temperatur Range: -25°C~+85°C
- 4、 Contact Resistance: 20mΩ Max
- 5、 Insulation Resistance: 100MΩ Min
- 6、 Withstanding Voltang: 500V AC/minute
- 7、 Material: PA66, White UL94V-0



编 号	尺寸 (mm)		
	A	B	C
10036-02Y	1.00	4.00	3.00
10036-03Y	2.00	5.00	4.00
10036-04Y	3.00	6.00	5.00
10036-05Y	4.00	7.00	6.00
10036-06Y	5.00	8.00	7.00
10036-07Y	6.00	9.00	8.00
10036-08Y	7.00	10.00	9.00
10036-09Y	8.00	11.00	10.00
10036-10Y	9.00	12.00	11.00
10036-11Y	10.00	13.00	12.00
10036-12Y	11.00	14.00	13.00

GENERAL TOLERANCE		钱岳生		料号	10036-1Y	版本	A
X.X±0.25	X.±2°	制 图	2020. 06. 04	PART NO.		REV.	
X.XX±0.20		审 核		品 名	10036孔插座	页 次	1/1
X.XXX±0.10		CHECK	2020. 06. 05	TITLE		SHEET	
		核 准	张 名	客户料号			
		APPROVAL	2020. 06. 06	CITM. NO.			
		单 位	MM	比 例	1:1		
		UNITS	SCALE	YUEQING HONGYI ELECTRONICS CO., LTD			
				乐清市宏一电子有限公司			

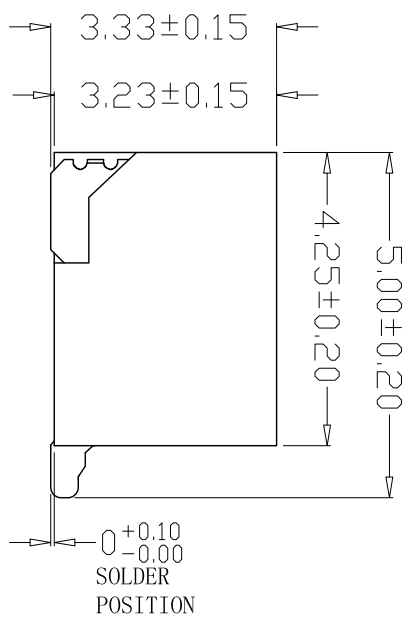


DIM. A=1.00xNO. of spaces

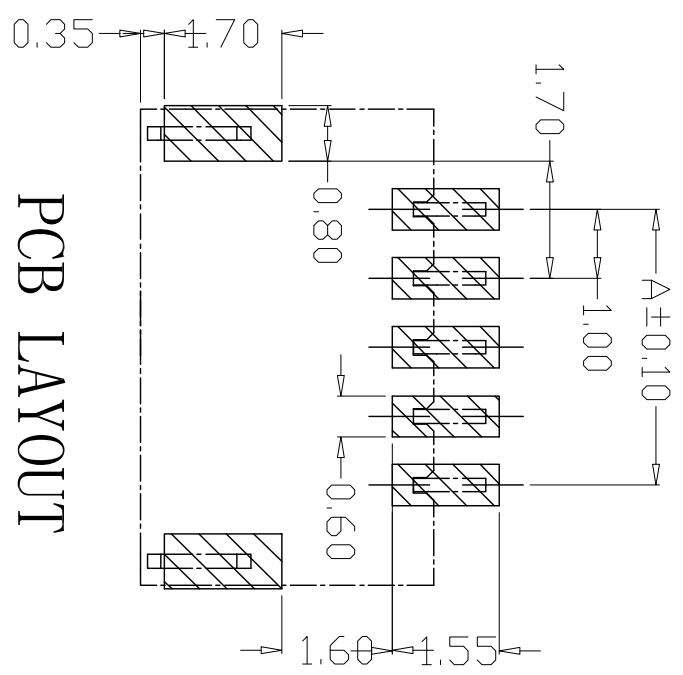
DIM. B=DIM. A+1.50

DIM. C=DIM. A+2.90

\*AVAILABLE IN 2 THROUGH 12



- SPECIFICATIONS**
- 1、 Current Rating: 1A AC, DC
  - 2、 Voltage Rating: 125V AC, DC
  - 3、 Temperature Range: -25°C ~ +85°C
  - 4、 Contact Resistance: 20mΩ Max
  - 5、 Insulation Resistance: 100MΩ Min
  - 6、 Withstanding Voltage: 500V AC/minute
  - 7、 Material: Wafer LCP, UL94V-0  
PIN Phosphoric bronzes Tin-plated



## PCB LAYOUT

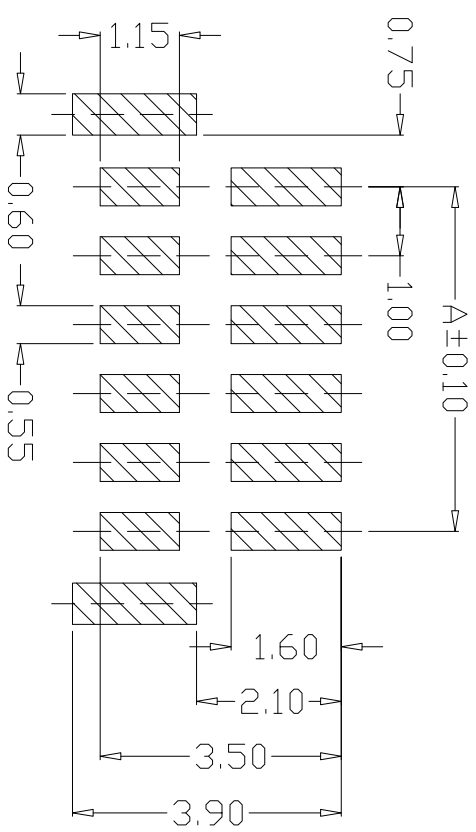
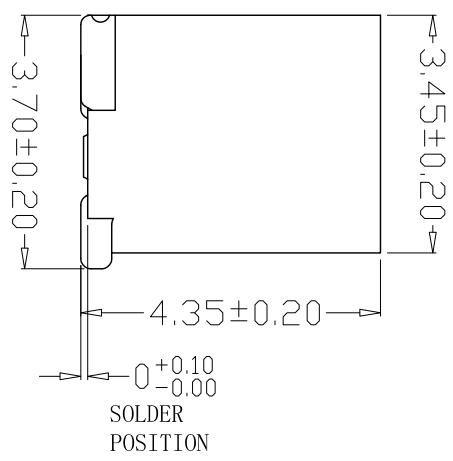
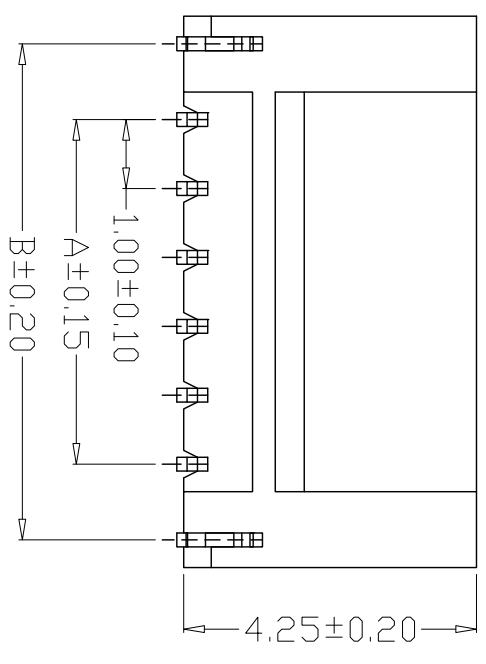
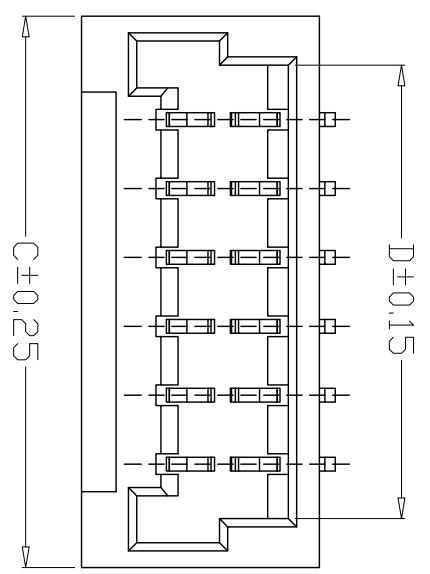
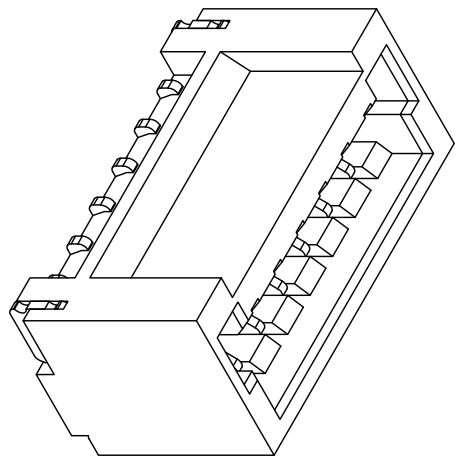
REV./ DATE	日期	ECN NO.	变更内容	制图
			DESCRIPTION <td>DRAWN</td>	DRAWN

GENERAL TOLERANCE		制图		料号		版本	
X.X±0.25	X.±2°	DRAWING	钱岳生	PART NO.	10036-nAWB	REV.	A
X.XXX±0.10		CHECK	张名	TITLE	10036耐焊	SHEET	1/1
X.XX±0.20		APPROVAL	张名	客户料号	WAFER SMT TYPE		
		UNIT	2018、10、07	CITM. NO.			
		MM	2018、10、07				
		SCALE	1:1				
				乐清市宏一电子有限公司			
				YUEQING HONGYI ELECTRONICS CO., LTD			

版本 REV.	日期 DATE	ECN NO.	变更内容 DESCRIPTION	制图 DRAWN

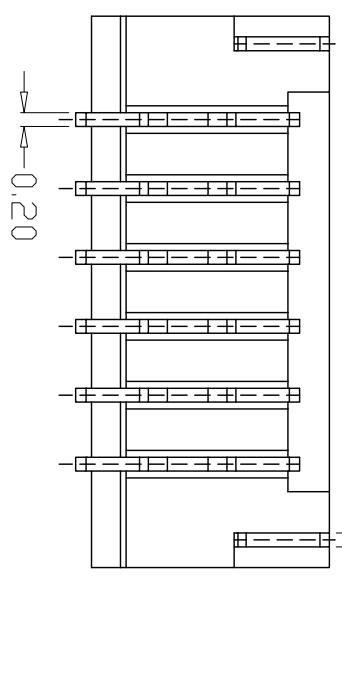
**SPECIFICATIONS**

- 1、 Current Rating: 1A AC, DC
- 2、 Voltage Rating: 125V AC, DC
- 3、 Temperature Range: -25°C~+85°C
- 4、 Contact Resistance: 20mΩ Max
- 5、 Insulation Resistance: 100MΩ Min
- 6、 Withstanding Voltage: 500V AC/minute
- 7、 Material: Wafer LCP, UL94V-0  
PIN Phosphoric bronzes Tin-plated



DIM. A=1.00xNO. of spaces  
 DIM. B=DIM. A+2.20  
 DIM. C=DIM. A+3.00  
 DIM. D=MID. A+1.50  
 \*AVAILABLE IN 2 THROUGH 12

**PCB LAYOUT**



<b>GENERAL TOLERANCE</b>		制 图		料 号		版本	
X.X±0.25	X.±2°	DRAWING	钱岳生	PART NO.	10036-nAB	REV.	A
X.XXX±0.10		CHECK	张 名	TITLE	10036立贴	页次	1/1
X.XX±0.20		APPROVAL	张 名	客户料号	WAFER SMT TYPE	SHEET	
		UNIT	2020.06.06	CITM. NO.			
		SCALE	1:1	乐清市宏一电子有限公司 YUEQING HONGYI ELECTRONICS CO., LTD			