

产品描述: TJC25046 CONNECTOR

目录

INDEX

1. 更改履历 Change History
2. 范围 Scope
3. 产品描述 Product Description
4. 相关标准 Related Standards
5. 参数范围 Parameter Ratings
6. 产品性能 Performance
7. 测试分组 Test Sequences

 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.	<u>制定 Edit:</u> 张玲玲 2015-8-11	<u>产品名称 Product Name:</u> TJC25046 系列产品
	<u>审核 Check:</u> 王曲 2019-1-11	<u>编号 Document No.:</u> PS3855
中国·浙江省乐清市虹桥镇幸福东路 1098 号 合兴工业园 1098,Xingfu`Road(East),CWB Industrial Zone,Hongqiao,Yueqing,Zhejiang 325608,China Tel: 86-577-61313157 Fax: 86-577-62313682	<u>批准 Approval:</u> 刘冬旭 2019-1-12	<u>版本 REVISION:</u> 2



产品规格书

PRODUCT SPECIFICATION

1.更改履历 Change History

序号 No.:	版本号 Version No.	更改前描述 Description Before Modification	更改后描述 Description After Modification	日期 Date
1	2	/		2019. 1. 10
2				
3				
4				
5				

--	--	--	--	--	--

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---

2 适用范围 Scope

本产品规格书适用于浙江合兴电子元件有限公司生产的 **CTB 2.5P 阴型 & 阳型电子连接器**，产品名称：**TJC25046-2X5Y & TJC25046-2X5A**。

This product specification covers the requirement for **Cable to Board 4.5mm pitch Receptacle & Plug connector**, which is designed and manufactured by CWB Electronics(ZheJiang) Co.,LTD. P/N: **TJC25046-2X5Y & TJC25046-2X5A**

3.产品描述 Product Description

TJC25046 系列产品为家电连接器产品，产品部件组成如下：

The TJC25046 series connector designed for home appliances connection. Part checklist as following form:

Name	Part name	Notes
条形连接器插座	TJC25046-2x5Y	PA66
条形连接器插头	TJC25046-2x5A	PA66

4.相关标准 Related Standards

以下参考文件是本规格书的一个组成部份。若本规格书中的要求与产品图纸发生冲突，则产品图中的要求为优先；若本规格书中的要求与参考文件中的要求冲突，则本规格书为优先。

The following documents form a part of this specification. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

GB/T 2421	电工电子产品环境试验 第一部分 总则 Testing Method for Environmental of Electrical Connectors Class 1: General Principles
GB/T 2423	电工电子产品环境试验方法 Testing Method for Environmental of Electrical Connectors
GB/T 2424	电工电子产品环境试验导则 Testing Method for Environmental of Electrical Connectors
GB/T 5095	电子设备用机电元件基本试验规程及测量方法 Testing procedure/Method for components of electric equipment

产品符合合兴企标 Q/HX J1150001 《产品及所用材料的环保要求》I类或顾客要求。

The connector should comply with CWB standard Q/HX J1150001 Class I or customer's requests.

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---

5. 参数范围 Parameter Ratings:

额定电流 Rated Current	3A
额定电压 Rated Voltage	250V [AC(有效值 rms)/DC]
使用温度范围 Operating temperature range	-25°C ~ +85°C

6. 产品性能 Performance

6.1 机械性能 Mechanical

序号 No.	项 目 Item	测试条件 Test Condition	规 格 Requirement					
6.1.1	外观 Appearance	目测 Checking by eye 视力: 1.0 以上 Eyesight: > 1.0 照明: (200~300) lx Lamp: (200~300) lx 目测距离: (0.3~0.5) m Space: (0.3~0.5) m GB/T 5095.1 Method 1a	1. 塑料件表面应无明显疤痕、凹陷、开裂及影响使用的变形。 Plastic part: smooth and flat surface without discolor, broken, crack, and distortion, etc. 2. 金属件表面无锈蚀、氧化、无明显的机械损伤及电镀层脱落等缺陷。 Metal part: bright and even surface without rust, oxide, fog and obvious physical damage, etc.					
6.1.2	成品插入力与拔出力 Insertion and Withdrawal Force for Connector	将锁扣破坏后,固定连接器和/或测力计,在连接器轴线方向插入和拔出;速度不大25±3mm/min Apply Axial Insert and withdraw force on the terminal in the housing at a rate of 25 ± 3 mm per minute. GB/T 5095.7 Method 13B / EIA-364-13B	PIN	1 Pin	2 Pin	3 Pin	4 Pin	5 Pin
			首次插入力	≤7N	≤11N	≤16N	≤22N	≤26N
			首次拔出力	≥1.5N	≥3N	≥4N	≥5N	≥8N
			50次后拔出力	≥1.5N	≥3N	≥4N	≥6N	≥9N
6.1.3	机械振动 Random Vibration	插合连接器,串联在一直流电源上,电流100mA;并模拟正常工作状态;振频为(10~55~10)Hz,每个循环时间为1分钟,振幅1.52mm。沿XYZ三轴正反方向各循环2h。 Mate connectors subjected them to following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, 100 mA current shall be applied. Frequency: (10~55~10) HZ/min. Amplitude: 1.52mm GB/T 5095.4 Method 6d / EIA-364-28D	外观: 无损伤(参照6.1.1) Appearance: No damage.(refer to 6.1.1) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max. 中断: 1μsec Max. <1μsec discontinuity					

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---



产品规格书

PRODUCT SPECIFICATION

6.1.4	锁紧力 Connector Retention	固定连接器（仅塑件）和测力计，在轴线方向将其拔出；速度不大于25 mm/min。 Mated connector (Only Plastic part), apply axial pullout force at the speed rate of 25mm/min	15N Min
6.1.5	机械寿命 Durability	以每分钟 10 次的速度插拔 50 次。 50 cycles mating and unmating test at the speed 10 cycles per minute GB/T 5095.5 Method 9A / EIA-364-09C	外观：无损伤（参照5.1.1） Appearance: No damage.(refer to 5.1.1) 接触电阻：0.03Ω Max。 Contact resistance: 0.03Ω Max.
6.1.6	跌落实验 Drop Test	配对后从 3 米高空自由跌落 5 次。 Mate connector and make it dropped from the 3 meters high for 5 times.	外观：无损伤（参照5.1.1），无松脱。 Appearance: No damage.(refer to 5. 1.1) and broken off 接触电阻：0.02Ω Max。 Contact resistance: 0.02Ω Max. 中断：1 μ sec Max。 <1 ms discontinuity
6.1.7	端子固定力 Terminal Retention Force	固定连接器和/或测力计，在连接器轴线方向插入和拔出；速度不大于 25 ± 3 mm/min Axial Insert and withdraw force on the terminal in the housing at a rate of 25 ± 3 mm per minute. GB/T 5095.8 Method 15A / EIA-364-29B	10N Min.

6.2 电气性能 Electrical

序号 No.	项 目 Item	测试条件 Test Condition	规格 Requirement
6.2.1	接触电阻 Contact Resistance	插配阴阳连接器后,用小功率电路进行测试 Mate connectors with dry circuit to test Contact Resistance GB/T 5095.2 Method 2a / EIA-364-23B	0.01 Ω Max. (Initial) 0.02 Ω Max. (Final)
6.2.2	绝缘电阻 Insulation Resistance	在相邻接触件之间或地线之间,用 500V DC 电压进行测试。 Apply a voltage of 500V DC between adjacent contacts and between contacts to ground. GB/T 5095.2 Method 3a / EIA-364-21C	1000 MΩ Min. (Initial) 500 MΩ Min. (Final)
6.2.3	耐电压 Withstand Voltage	相邻接触件之间或地线之间施加 800V AC (有效值),漏电流 1mA 的电压作用,时间 1min。 Apply a voltage of AC 800V for 1 minute between adjacent contacts and between contacts to ground. GB/T 5095.2 Method 4a / EIA-364-20B	外观：无击穿和飞弧现象 Appearance: No Breakdown or flashover

6.3 环境性能 Environmental

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---



产品规格书

PRODUCT SPECIFICATION

序号 No.	项 目 Item	测试条件 Test Condition	规 格 Requirement
6.3.1	耐高温 Heat Resistance	连接器配合后, 于 $85\pm 2^{\circ}\text{C}$ 的空气中放置 240 小时, 再回到室温中放置 1-2 小时测定 Mate connector exposed to the condition of $85\pm 2^{\circ}\text{C}$ for 240 hours.Recovery time 1~2 hours GB/T 5095.6 Method 11i / EIA-364-17B	外观: 无损伤 (参照5.1.1) Appearance: No damage.(refer to 5.1.1) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max.
6.3.2	耐低温 Cold Resistance	连接器配合后, 于 $-25\pm 2^{\circ}\text{C}$ 的空气中放置 96 小时, 再回到室温中放置 1-2 小时测定 Mated connectors exposed to the condition of $-25\pm 2^{\circ}\text{C}$ for 96 hours. Recovery time 1~2 hours GB/T 5095.6 Method 11j / EIA-364-17B	外观: 无损伤 (参照6.1.1) Appearance: No damage.(refer to 6.1.1) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max.
6.3.3	恒定湿热 Humidity	温度($40\pm 2^{\circ}\text{C}$), 相对湿度($90\sim 95\%$) 搁置时间 48h, 取出恢复 2h 后检查. Mated connector exposed to the condition of $+40\pm 2^{\circ}\text{C}$ @ $90\sim 95\%$ Humidity for 48 hours. Recovery time 2 hours GB/T 5095.6 Method 11C /EIA-364-31B	外观: 无损伤 (参照5.1.1) Appearance: No damage.(refer to 5.1.1) 接触电阻: 0.03Ω Max. Contact resistance: 0.03Ω Max. 绝缘电阻: $100\text{ M}\Omega$ Min. Insulation Resistance : $100\text{ M}\Omega$ Min.
6.3.4	温度循环 Temperature Cycling	把试验样品分别放入高、低温试验箱中, 按下列步骤调试温度: a) 在($-55\pm 2^{\circ}\text{C}$)的恒温条件下放置 0.5h; b) 在($85\pm 2^{\circ}\text{C}$)的恒温条件下放置 0.5h; 从 a)到 b)为一个循环周期, 共进行 25 个循环,恢复 1h 后检查。状态转换时间 1~2 小时。 Mate connectors shall be tested under the following conditions Temperature $^{\circ}\text{C}$ Duration (Minutes) -55 30 +25 5Max +85 30 +25 5Max Step 1 to 4 is one cycle,25 cycles shall be tested. Recovery time 1~2 hours. GB/T 5095.6 method 11D / EIA-364-32C	外观: 无损伤 (参照5.1.1) Appearance: No damage.(refer to 5.1.1) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max. 绝缘电阻: $500\text{ M}\Omega$ Min. Insulation Resistance : $500\text{ M}\Omega$ Min.
6.3.5	盐雾 Salt Spray	把试验样品从试验箱顶悬挂下来, 采用浓度为 ($5\pm 1\%$)(质量百分比)的氯化钠溶液, 在($35\pm 2^{\circ}\text{C}$)温度下连续雾化 48h,试验后用流动的蒸馏水轻轻洗去表面沉积物。在常温常湿条件下恢复 1~2h Forty-eight hours spray, at temp ($35\pm 2^{\circ}\text{C}$), NaCl mist concentration ($5\pm 1\%$). After test, wash parts and put it into room ambient for 1~2 hours GB/T 5095.6 Method 11f /EIA-364-26B	外观: 无损伤(五金件应无露出底金属的严重锈蚀;使用预镀好的型材, 其落料面允许有不影响其性能的轻微腐蚀。) Appearance: No Damage (No erosion on material exposed. and plating material, slight erosion on the cutting surface is acceptable) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max.

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---



产品规格书

PRODUCT SPECIFICATION

6.3.6	可焊性 Solderability	把试验样品需要焊接的部位浸入焊锡炉中，锡炉温度(245±5)℃，时间(4~5)s Dip solder tails into the molten solder held at (245±5) °C for ((4~5) sec. EIA-364-52	上锡率≥95%: Solder coverage: ≥95%
6.3.7	耐焊接热 Resistance to Soldering Heat	耐波峰焊热：把试验样品需要焊接的部位浸入焊锡炉中,锡炉温度 (260±5) °C；时间 (5±1) s 后，在正常条件下恢复1~2h。 手工焊接：温度(350±10)℃，时间 (3±0.5) seconds Resistance to Wave Soldering Heat : Dip solder tails into the molten solder held at (260 ± 5) °C for (5 ± 1) sec., Recovery time 1~2 hours Manual soldering : (350±10)°C for (3±0.5) seconds	外观：无损伤（参照5.1.1） Appearance: No damage.(refer to 5.1.1)

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---



产品规格书

PRODUCT SPECIFICATION

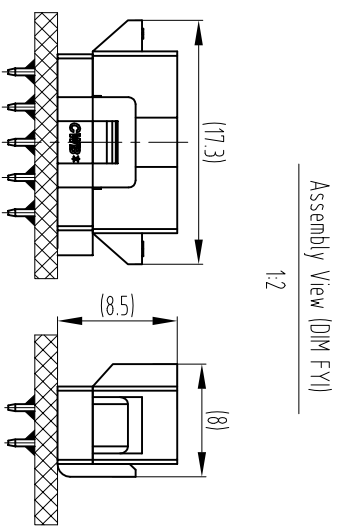
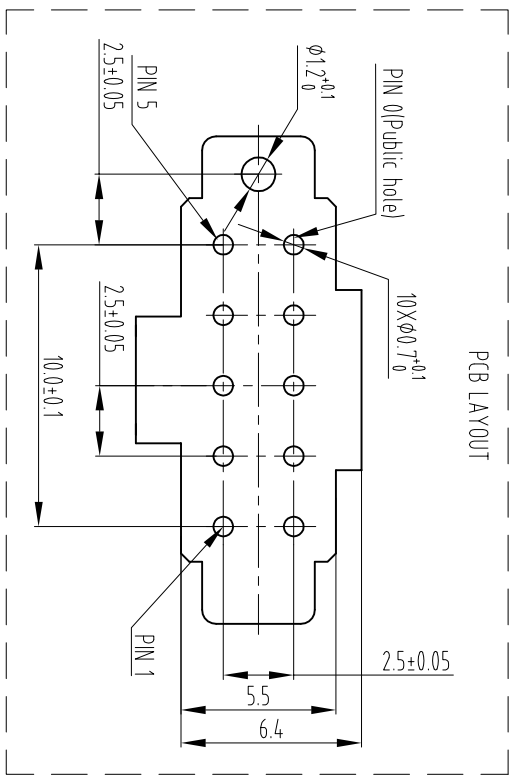
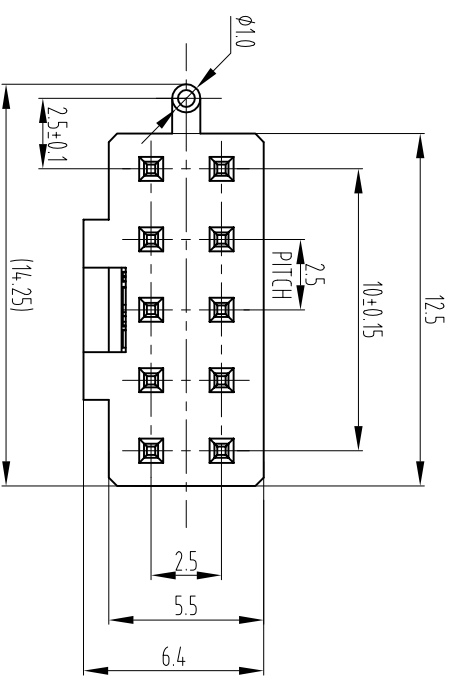
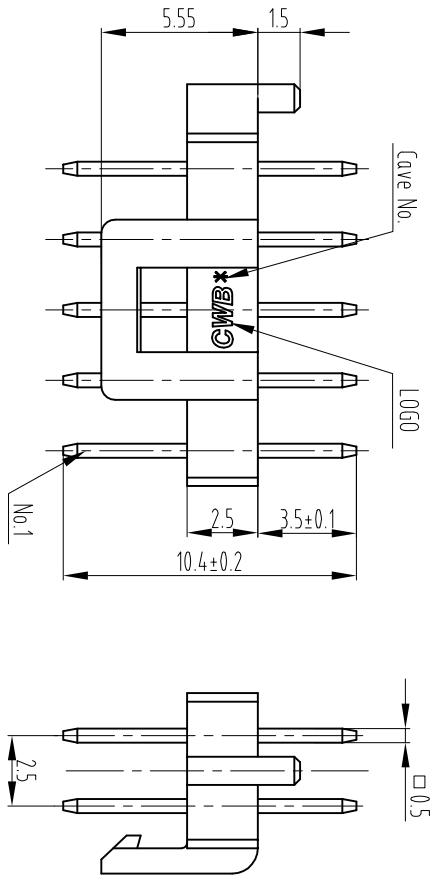
7. 测试分组 Test Sequences (Samples: 3PCS)

测试组 GROUP NUMBER	A	B	C	D	E	F	G	H	I	J	K	L	M
外观 Appearance	1	1,6	1	1,7	1,5	1	1,5	1,5	1,6	1,6	1,5	1,3	1,4
成品插入力与拔出力 Insertion and Withdrawal Force for Connector	2	5											
机械振动 Random Vibration		3											
锁紧力 Connector Retention			2										
机械寿命 Durability				5									
跌落实验 Drop Test					3								
端子固定力 Terminal Retention Force						2							3
接触电阻 Low Level Contact Resistance		2,4		2,6	2,4		2,4	2,4	2,4	2,4	2,4		
绝缘电阻 Insulation Resistance				3					5	5			
耐电压 Withstand Voltage				4									
耐高温 Heat Resistance							3						
耐低温 Cold Resistance								3					
恒定湿热 Humidity									3				
温度循环 Temperature Cycling										3			
盐雾 Salt Spray											3		
可焊性 Solderability												2	
耐焊接热 Resistance to Soldering Heat													2

产品名称 Product Name:	TJC25046 系列	编号 Document No.	PS3855	版本号 VersionNo.	2
-----------------------	-------------	--------------------	--------	-------------------	---

General Tolerance			
Dimension	Tolerance	Rev. No	Location
0~3	±0.13	△	C4
3~18	±0.23		H8
18~50	±0.35		
≥50	±0.55		

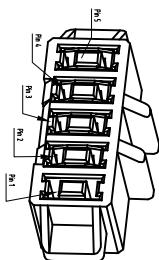
Description	Reviser	Date
Change length of pins	Li.Qin	2017.3.21
Version upgrade	Ji.Wu	2019.1.10



- Notes:
- 1.Material: PA66 UL94 V-0;
 - 2.Brass, Gold Plated;
 - 3.Matched Housing: TJC25046-2x5A;
 - 4.Packaging: Packing bags;
 - 5.Compliant To The Current RoHS.

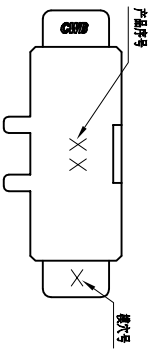
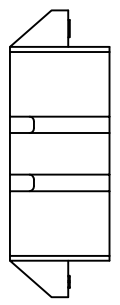
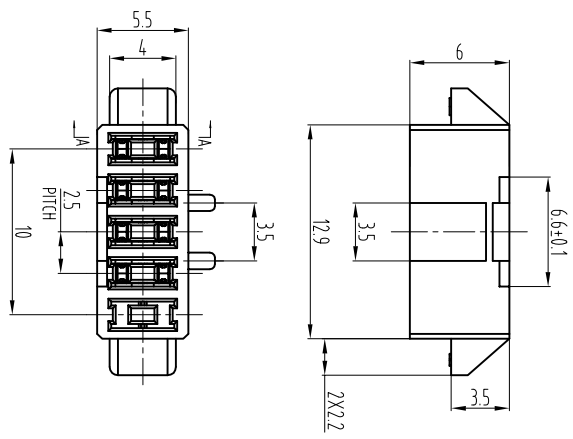
CUSTOMER DRAWING				Title: 25mm Pitch Header		
Drawn	LinglingZhong 2015.8.26	Unit	mm	Scale	4:1	
Checked	Qu.Wang 2019.1.11	Sheet No.	1 of 1	Size	A4	
Approved	Dongxuliu 2019.1.12	Edition	B2	Part No.:	TJC25046-2x5A	
 浙江合共兴电子有限公司 CWB Electronics (Shanghai) Co., Ltd.			Document No.:	CP-DWG-00036	Specification No.:	PS3855

General Tolerance		Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
		0~3	±0.13		H8	Version upgrade	JiWu	2019.1.10
		3~18	±0.23					
		18~50	±0.35					
		>50	±0.55					



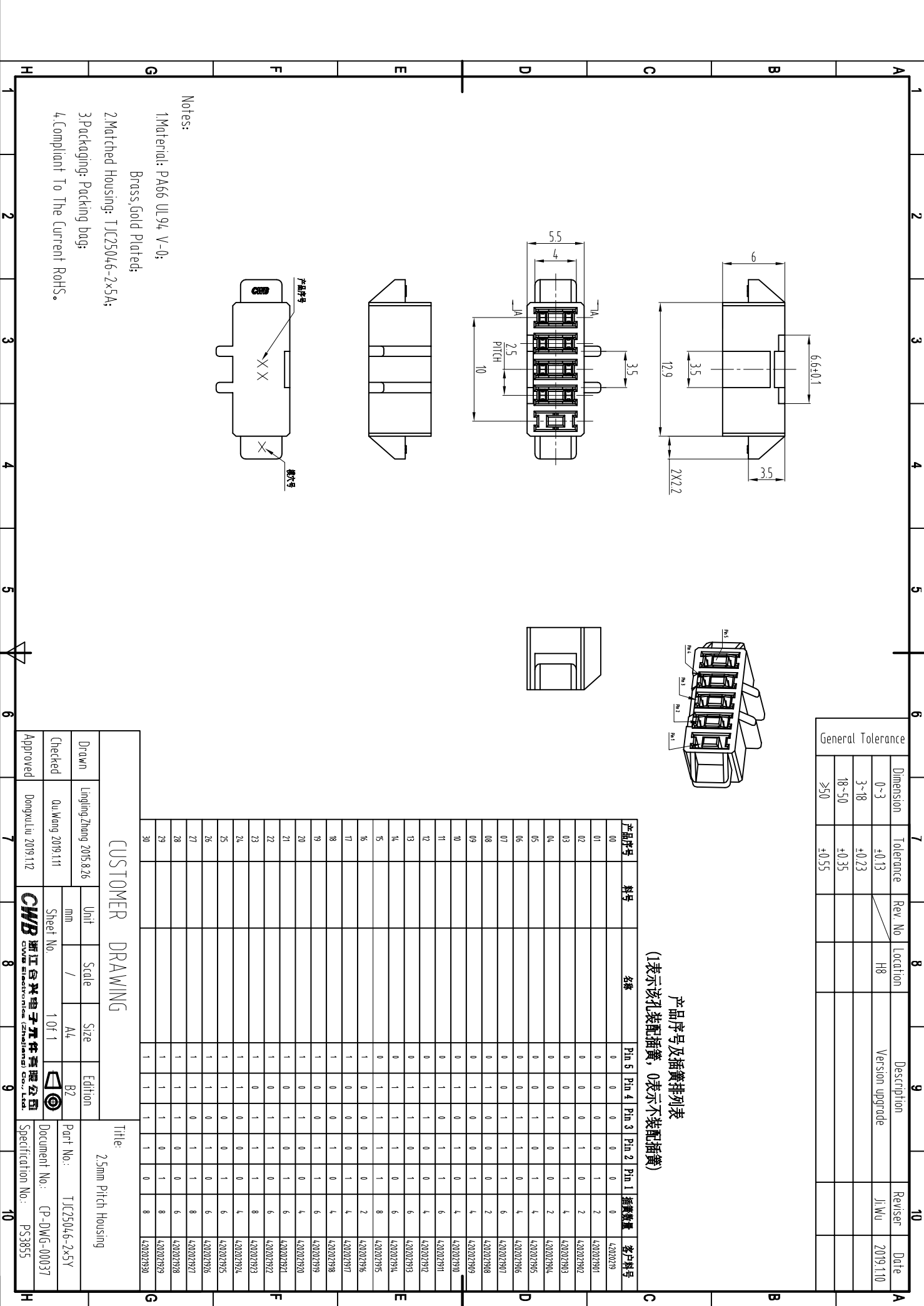
产品序号及插簧排列表
(1表示该孔装配插簧, 0表示不装配插簧)

产品序号	料号	名称	Pin 5	Pin 4	Pin 3	Pin 2	Pin 1	插簧数量	客户料号
00			0	0	0	0	0	0	4202029
01			0	0	0	0	1	2	420202901
02			0	0	0	1	0	2	420202902
03			0	0	0	1	1	4	420202903
04			0	0	1	0	0	2	420202904
05			0	0	1	0	1	4	420202905
06			0	0	1	1	1	4	420202906
07			0	0	1	1	1	6	420202907
08			0	1	0	0	0	2	420202908
09			0	1	0	0	1	4	420202909
10			0	1	0	1	0	4	420202910
11			0	1	0	1	1	6	420202911
12			0	1	1	0	0	4	420202912
13			0	1	1	0	1	6	420202913
14			0	1	1	1	0	6	420202914
15			0	1	1	1	1	8	420202915
16			1	0	0	0	0	2	420202916
17			1	0	0	0	1	4	420202917
18			1	0	0	1	0	4	420202918
19			1	0	0	1	1	6	420202919
20			1	0	1	0	0	4	420202920
21			1	0	1	0	1	6	420202921
22			1	0	1	1	0	6	420202922
23			1	0	1	1	1	8	420202923
24			1	1	0	0	0	4	420202924
25			1	1	0	0	1	6	420202925
26			1	1	0	1	0	6	420202926
27			1	1	0	1	1	8	420202927
28			1	1	1	0	0	6	420202928
29			1	1	1	0	1	8	420202929
30			1	1	1	1	0	8	420202930



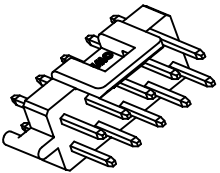
- Notes:
- 1.Material: PA66 UL94 V-0;
 - Brass, Gold Plated;
 - 2.Matched Housing: TJC25046-2x5A;
 - 3.Packaging: Packing bag;
 - 4.Compliant To The Current RoHS.

CUSTOMER DRAWING				Title: 25mm Pitch Housing	
Drawn	LinglingZhong 2015.8.26	Unit	Scale	Size	Edition
Checked	Qiu Wang 2019.1.11	mm	/	A4	B2
Approved	Dongxuliu 2019.1.12	Sheet No.	1 of 1		
		Part No.:	TJC25046-2x5Y		
		Document No.:	CP-DWG-00037		
		Specification No.:	PSS855		

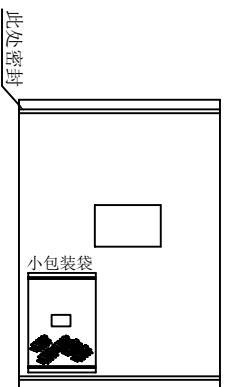


Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
0~3	±0.13		H8	Version upgrade	Ji.Wu	2019.1.10
3~18	±0.23					
18~50	±0.35					
≥50	±0.55					

General Tolerance

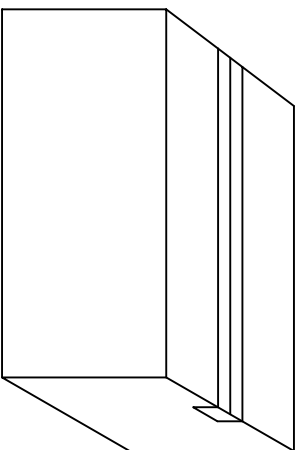


产品



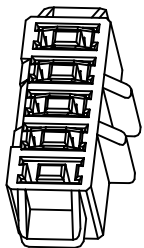
大包装袋

将产品装入包装袋中



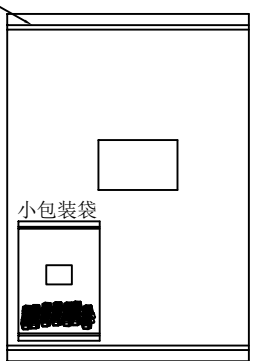
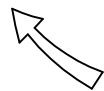
将包装袋装入包装箱中

CUSTOMER DRAWING				TJC25046-2X5A(BL)		1000PCS			
Title: Packaging Specification of 2.5mm Pitch Header				Designation		Pcs/bag			
Drawn	Lingling Zhang 2015.8.26	Unit	mm	Scale	1:1	Size	A4	Edition	B2
Checked	Qiu Wang 2019.1.11	Sheet No.	1 Of 1		Part No.: TJC25046-2X5A		Document No.: BZ-DWG-00039		
Approved	Dongxuliq 2019.1.12	CWB 浙江合共电子有限公司 CWB Electronics (Zhejiang) Co., Ltd.		Specification No.: PS3855					



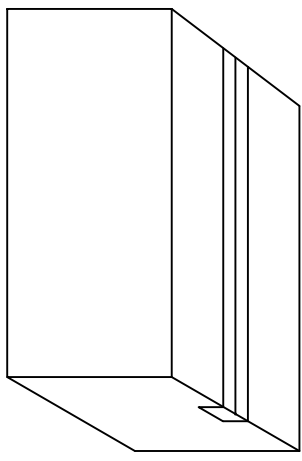
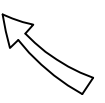
产品

大包装袋



将产品装入包装袋中

此处密封



将包装袋装入包装箱中

General Tolerance			
Dimension	Tolerance	Rev. No	Location
0~3	±0.13		H8
3~18	±0.23		
18~50	±0.35		
≥50	±0.55		

Part No.	Description	Revision	Quantity
TJC25046-2X5Y-00(BL)	Version upgrade		35000PCS
TJC25046-2X5Y-01(BL)			1000PCS
TJC25046-2X5Y-02(BL)			35000PCS
TJC25046-2X5Y-03(BL)			1000PCS
TJC25046-2X5Y-04(BL)			35000PCS
TJC25046-2X5Y-05(BL)			1000PCS
TJC25046-2X5Y-06(BL)			35000PCS
TJC25046-2X5Y-07(BL)			1000PCS
TJC25046-2X5Y-08(BL)			35000PCS
TJC25046-2X5Y-09(BL)			1000PCS
TJC25046-2X5Y-10(BL)			35000PCS
TJC25046-2X5Y-11(BL)			1000PCS
TJC25046-2X5Y-12(BL)			35000PCS
TJC25046-2X5Y-13(BL)			1000PCS
TJC25046-2X5Y-14(BL)			35000PCS
TJC25046-2X5Y-15(BL)			1000PCS
TJC25046-2X5Y-16(BL)			35000PCS
TJC25046-2X5Y-17(BL)			1000PCS
TJC25046-2X5Y-18(BL)			35000PCS
TJC25046-2X5Y-19(BL)			1000PCS
TJC25046-2X5Y-20(BL)			35000PCS
TJC25046-2X5Y-21(BL)			1000PCS
TJC25046-2X5Y-22(BL)			35000PCS
TJC25046-2X5Y-23(BL)			1000PCS
TJC25046-2X5Y-24(BL)			35000PCS
TJC25046-2X5Y-25(BL)			1000PCS
TJC25046-2X5Y-26(BL)			35000PCS
TJC25046-2X5Y-27(BL)			1000PCS
TJC25046-2X5Y-28(BL)			35000PCS
TJC25046-2X5Y-29(BL)			1000PCS
TJC25046-2X5Y-30(BL)			35000PCS

Designation Pcs/bag Pcs/box

CUSTOMER DRAWING

Title: Packaging Specification of 2.5mm Pitch Housing

Drawn	Lingling Zhong 2015.8.26	Unit	mm	Scale	1:1	Size	A4	Edition	B1	Part No.:	TJC25046-2X5Y
Checked	Qu Wang 2019.1.11	Sheet No.	1 Of 1		Document No.:		BZ-DWG-00038		Specification No.:	PS3855	
Approved	Dengxu Liu 2019.1.12	CWB 浙江台兴电子元件有限公司		CWB Electronics (Zhejiang) Co., Ltd.							