

YUEQING HONGYI ELECTRONICS CO., LTD

乐清市宏一电子有限公司

SPECIFICATION FOR APPROVAL

承认书

CUSTOMER 客户名称	
DESCRIPRION 产品名称	2060 系列连接器
ITEM NO 编 号	HY-B40006 (B63)
DATE 日 期	2022-09-13

CUSTOMER ACKNOWLEDGEMENT SEAL

客户承认印签

(APPROVAL) 核准	(ENGINEERING) 工程	(PURCHASE) 采购	(QUALITY) 品质
承认结果: <input type="checkbox"/> 通过 <input type="checkbox"/> 不通过 <input type="checkbox"/> 重新送样			

ISO9001

ISO14001

ISO45001

IATF16949 体系认证

ADD: No. 30, Wenjing Road, Houyu village, Shifan street, Yueqing City, Zhejiang Province

地址: 浙江省乐清市石帆街道后屿文景路 30 号

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、修订履历	2-2
3、目录	3-3
4、技术规范	4-9
5、产品图纸	10-10

PRODUCT SPECIFICATION

产品规范

1、Scope

适用范围

This specification includes the following specifications, including the specification of 4.00mm pitch 2060 series connector

本规范包括下列此种规格包括 4.00mm 间距 2060 系列连接器规格说明

2、Appearance and Dimension

外观及尺寸

2.1 Appearance: Product surface without defect, dirt, crack, and mechanical damage, Contact without rust, plating not oxidized 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

2.2 Dimension: According to drawings

外形尺寸：依照附图

3、Disposal of Material and surface

材料与表面处理

P/N 零件名称	Type 类型	Material 材料	Finish 表面处理	Expiain 说明
Housing 孔座	Contact 插簧	Phosphor bronze 磷铜厚 0.30mm	Tin Plating: 2.5~5 μm 镀锡: 2.5~5 μm	RoHS
	Plastic 塑壳	LCP UL94V-0	Color: Beige 颜色: 米色	

4、Ratings and applicable wires

额定等级

Item 项目	Standard 规格
Rated Voltage 额定电压	300V AC/DC
Rated Current 额定电流	3A AC/DC
Ambient temperature Range 使用温度范围	-40℃- +130℃
Applicable wire insulation 适用线径	AWG18#-24#

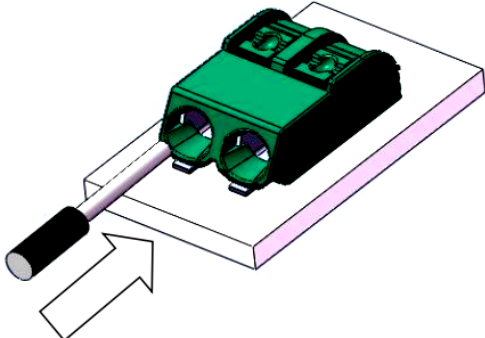
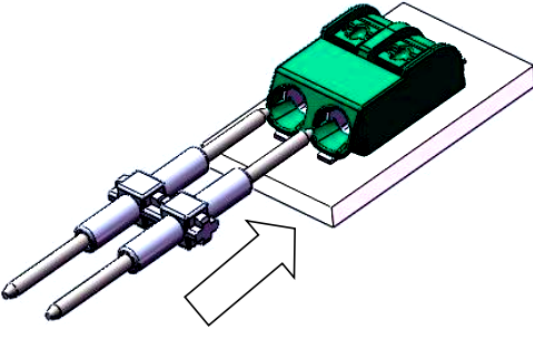
5、Electrical Performance

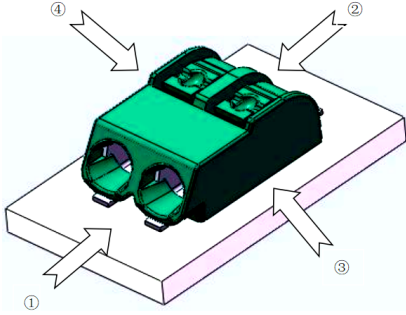
电气性能

N0. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
5.1	Contact Resistance 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: 20mΩ Max 初始: 20mΩ Max After Test: 30mΩ Max 试验后: 30mΩ Max
5.2	Withstand voltage 耐电压	Mate connectors, apply 1500V 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1500V 的交流电1分钟, 检测连接器	No Breakdown and Flashover 外观无损伤, 无打火花
5.3	Insulation Resistance 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	1000MΩ Min

6、机械性能

Mechanical Performance

NO. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求
6.1	Wire / pin insertion force 导线/排针插入力	<p>Insert the wire or copper needle, speed per minute 25 + 3mm test</p> <p>插入电线或铜针，速度为每分钟 25±3mm 进行测试</p> <p>Insert the wire 插入电线</p>  <p>Insert the pin 插入排针</p> 	<p>Per contact 单一接触点</p> <p>10N Max</p>
6.2	Wire pull-out force 导线拔出力	<p>The wire is pulled out, the speed per minute 25 + 3mm test</p> <p>拔出电线，速度为每分钟25±3mm进行测试</p>	<p>Per contact 单一接触点</p> <p>AWG#24#:20N Min</p> <p>AWG#18~22#:30N Min</p>
6.3	Jumper pull output 排针拔出力	<p>The pin is pulled out, the speed per minute 25 + 3mm test</p> <p>拔出排针，速度为每分钟25±3mm进行测试</p>	<p>Per contact 单一接触点</p> <p>3N Min</p>

4	Retention and printed circuit board 与印刷电路板保持力	<p>Connector PCB welding, the measured part from the force, speed per minute 25 + 3mm test 连接器焊接 PCB 板后，测得部分脱离力，速度为每分钟 25 ± 3mm 进行测试</p> 	<p>For 5's Direction 4 个方向 1P: ①, ② Direction 20N Min ③、④ Direction 10N Min 2P: ①, ② Direction 30N Min ③、④ Direction 15N Min 3P: ①, ② Direction 40N Min ③、④ Direction 20N Min</p>
---	--	--	---

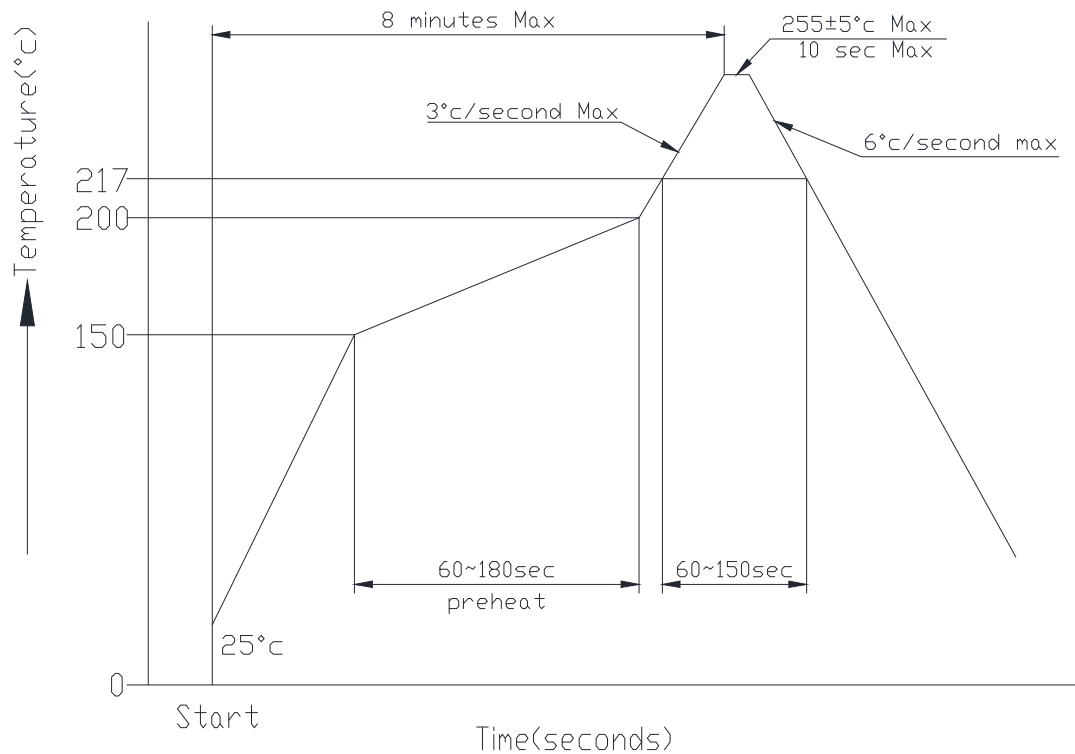
7、Endurance Characteristics:

环境性能

NO. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求	
7.1	Repeated Insertion/ Withdrawal 重复插拔	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute 以每分钟不超过 10 次的速率, 将公母插拔 30 次	Contact Resistance 接触电阻	30 mΩ Max
7.2	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	Temperature Rise 温升测试	30°C Max
7.3	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 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
			Discontinuity 瞬断	1 micro-second Max.
7.4	Heat Resistance 耐热性	130±2°C, 96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
7.5	Cold Resistance 耐寒性	-40±3°C, 96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max

NO. 序号	Ltem 项目	Test mode 试验方法	Requirement 技术要求	
7.6	Humidity 耐湿性	Temperature: 60±2℃ Relative Humidity: 90~95% Duration: 96 hours 温度: 60±2℃ 湿度: 90~95%(RH) 持续时间: 96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
			Withstand Voltage 耐电压	No Breakdown and Flashover 外观无损伤, 无打火花
			Insulation Resistance 绝缘电阻	1000MΩ Min
7.7	温度变化 Temperature Cycling	5 cycles of: a) -40℃ 30 minutes b) +130℃ 30 minutes 从-40℃持续30 分钟升至+130℃持续30 分钟, 循环5 次	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
7.8	Salt spray 盐雾	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 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
7.9	Solder ability 焊锡附着性	Soldering Time: 3-5sec solder Temperature: 245±5℃ 焊接时间: 3-5 秒 焊接温度: 245±5℃	Solder Wetting 焊料润湿	Immersion area above 95% 浸渍面积 95% 以上
7.10	Solder- Resistance 焊锡耐热性	SMT reflow soldering heat resistance range: Soldering time:5~10sec solder. Temperature:255±5℃ SMT 型回流焊接耐热范围: 焊接时间: 5~10 秒. 焊接温度: 255±5℃ Please refer to the 9.1 solder reflow temperature curve 回流焊请参考 9.1 温度曲线图	Appearance 外观	No damage 无异常

9、 SMT lead-free process temperature curve SMT 无铅工艺温度曲线



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

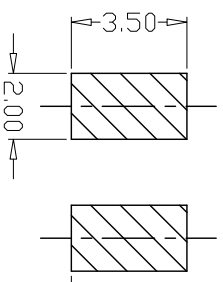
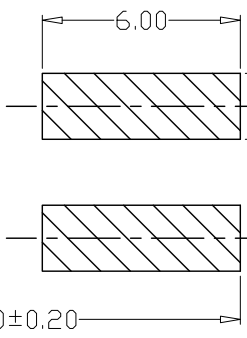
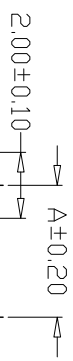
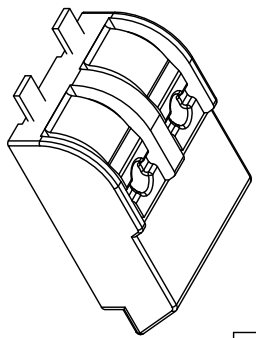
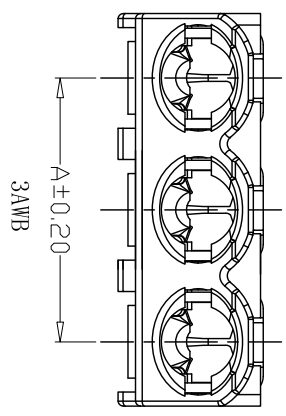
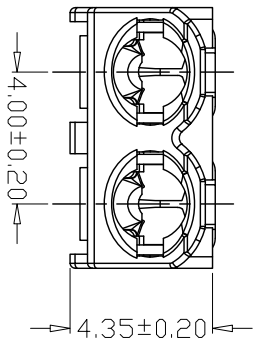
注记: 由于 P.C 板等焊接装置改变条件,所以请预先用自己的装置检查回流焊的条件

10、 Caution 注意事项

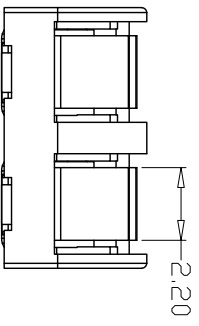
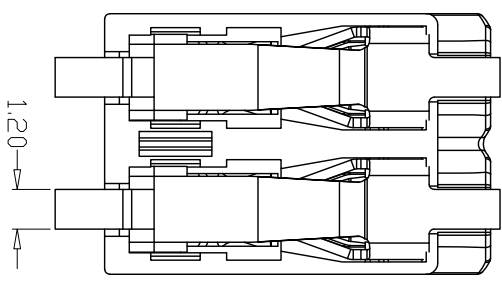
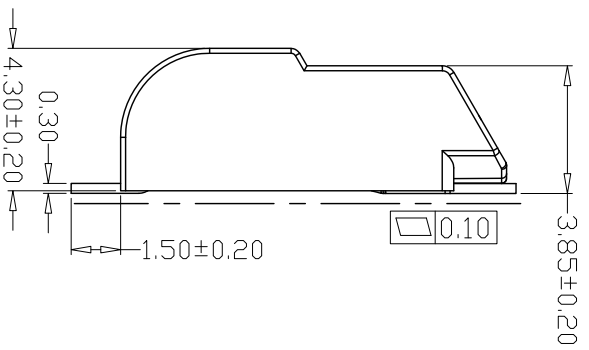
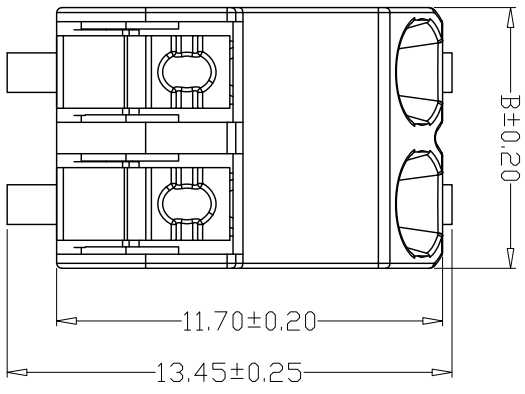
plastic because of characteristics with water after package is opened should avoid exposure to, the temperature is higher than 30 °C, humidity is higher than 60%RH in the environment, and in the 24 hours after all after use, to prevent subsequent reflow, wave soldering process to produce foaming phenomenon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

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



PCB LAYOUT



- SPECIFICATIONS
- Current Rating: 3A AC, DC
 - Voltage Rating: 300V AC, DC
 - Temperature Range: -40°C~+130°C
 - Contact Resistance: 20mΩ Max
 - Insulation Resistance: 1000MΩ Min
 - Withstanding Voltage: 1500V AC/minute
 - Material: Wafer LCP, UL94V-0
 - PIN Phosphoric bronzes Tin-plated
 - Applicable Wire Sizes: AWG#18~24#

PIN		尺寸 (mm)		GENERAL TOLERANCE		制图 Mapping		料号 PART NO.		版本 REV.	
2060-01AWB	A	—	4.00	X±0.25	X°±2°	审核 Audit	张迎春	2022.09.12	B40006-nAWB	A	
2060-02AWB	B	4.00	8.00	.XX±0.15	.XX°±0.5°	核准 Approved	钱岳生	2022.09.12	2060 贴片 WAFER SMT TYPE	1/1	
2060-03AWB		8.00	12.00	.XXX±0.10	.XXX°±0.5°	单位 Units	张名	2022.09.13			
		MM	SCALE							YueDing HongYi Electronics Co., Ltd	

乐清市宏一电子有限公司
YueDing HongYi Electronics Co., Ltd