

产品规格书

PRODUCT SPECIFICATION

Page: 1/10

产品规格: GJ-B2001 系列	No.: EN-011 (2020-04)	Date Issued: Apr.08, 2020
Specification: GJ-B2001 Series	Rev. : A.0	Date Revised:
2.0mm pitch/Disconnectable Crimp style connectors		Issued by: Engineering Dept.

Prepared by: <i>James.Kang</i>	Checked by: <i>James.Kang</i>	Reviewed by:	Approved by: <i>Liangdong.Yi</i>
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地址: 广东省东莞市长安镇上沙第二工业区创盛路 14 号
Add: No.14, Chuangsheng Road, Shangsha Second Industrial Zone, Changan Town, Dongguan City, Guangdong
电话: 0769-81669553 传真: 0769-81669553



产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品 PART NUMBER: B2001 Series (2.0mm) Lead-free product	版本/Rev.	A.0
	日期/Date	Apr.08,2020

目录/Index

1. 范围/Scope

2. 名称和产品料号 / Part name & Part number

3. 材质结构和表面处理 / Construction, Dimensions, Material & Surface Finish

4. 规格 / Main Specifications

5. 性能 / Performance

5.1 电气性能 / Electrical Performance

5.2 机械性能 / Mechanical Performance

5.3 环境性能 / Environmental Performance

6. 插入力及拔出力 / Insertion & Withdrawal Force

产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品 PART NUMBER: B2001 Series (2.0mm) Lead-free product	版本/Rev.	A.0
	日期/Date	Apr.08,2020

【1.范围/Scope】

本产品规格书涵盖 2.0mm 间距 (B2001 系列) 连接器的性能测试和要求

This product specification covers the performance testing and requirements of 2.0mm Pitch (B2001 series) connectors

【2. 名称和产品料号 / Part name & Part number】

产品名称 Part name	产品料号 Part number
端子 / Terminal	B2001TR-BTS B2001TV-BTS
胶壳 / Housing	B2001HR B2001HV

【3. 材质结构和面处理 / Construction, Dimensions, Material & Surface Finish】

产品结构和尺寸符合图纸

Construction and dimensions shall be in accordance the referenced drawings.

产品材质和表面处理符何以下规定:

Material and surface finish shall be as specified below.

产品名称/ Part name	材质/ Material	表面处理/ Surface Finish
端子 / Terminal	Brasses	Tin-plated
胶壳 / Housing	Nylon66	Flammability: UL94V-0

产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品 PART NUMBER: B2001 Series (2.0mm) Lead-free product	版本/Rev.	A.0
	日期/Date	Apr.08,2020

【4. 规格 / Main Specifications】

- 接触电阻 (Contact resistance) : $\leq 20\text{m}\Omega$
- 绝缘电阻 (Insulation resistance) : $\geq 500\text{M}\Omega$
- 额定电压 (Rated voltage) : 250V AC DC
- 额定电流 (Rated current) : 2.0A AC DC
- 耐 电 压 (Withstand Voltage) : 800V AC/minute
- 温度范围 (Temperature Range) : $-25^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- 适用线规 (Applicable wire) : AWG#30 to #24
- 线 数 (Poles no) : 20 to 16P
- 适用基板厚度 (Applicable PC board thickness) : 1.2mm to 1.6mm

- Conforms to The RoHS Instruction
- Conforms to The REACH Instruction



Recognized on passage

产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品 PART NUMBER: B2001 Series (2.0mm) Lead-free product	版本/Rev.	A.0
	日期/Date	Apr.08,2020

【5. 性能 / Performance】

5-1 电气性能 Electrical Performance

项目 / Item		条件 / Test Condition	规格 / Requirement
5-1-1	接触阻抗 Contact Resistance	插合连接器后, 用小功率电路进行测试 Mate connectors, measure by dry circuit	20 mΩ MAX.
5-1-2	绝缘阻抗 Insulation Resistance	应在配对试样的相邻触点之间施加 500V 直流电, 以测量绝缘电阻 500V DC shall be applied between adjacent contacts of a mated specimen to measure insulation resistance 【MIL-STD-202 302】	500MΩ MIN.
5-1-3	耐电压 Dielectric Strength	在规定的试验电压应在配对试样的相邻触点之间施加一分钟 500V AC Testing voltage specified below shall be applied between adjacent contacts of a mated specimen for one minute 500V AC	无击穿、打火 There shall be no breakdown of flashover

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	日期/Date	Apr.08,2020

5-2 机械性能 Mechanical Performance

项目 / Item		条件 / Test Condition	规格/Requirement	
5-2-1	抗拉强度 crimp tensile strength	对铆压好的端子和电线施加拉力, 测量将电线拉出端子或电线断开的力(测试速度: $25\pm 3\text{mm/min}$) Pulling load shall be applied to a correctly crimped terminal and a wire. the load to pull the wire out of the terminal or break the wire shall be measured(Testing speed: $25\pm 3\text{mm/min}$)	AWG #24 AWG #26 AWG #28 AWG #30	20N Min. 15N Min. 10N Min. 8N Min.
5-2-2	端子插入力 Terminal insertion force	铆压好的端子插入胶壳 Insert the crimped terminal in the housing at a constant speed of $25\pm 3\text{mm}$ per minute	-----	
5-2-3	端子保持力 Contact Retention Force	测量: $1\sim 5\text{mm/秒}$ 速度从胶壳中轴向拉出端子线的力 Crimped contact shall be mounted in a housing and pulled in the axial direction. the load to pull the contact out of the housing shall be measured (testing speed: 1 to 5mm/sec.)	10N Min.	
5-2-4	Pin 针保持力 Pin Retention Force	以每分钟 $25\pm 3\text{mm/分钟}$ 速度将 Pin 针从胶体内轴向推出的力 The end of a post shall be pushed perpendicularly. The load to make the post start moving from a wafer shall be measured(testing speed:$25\pm 3\text{mm/min.}$)	-----	

产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品 PART NUMBER: B2001 Series (2.0mm) Lead-free product	版本/Rev.	A.0
	日期/Date	Apr.08,2020

5-3 环境试验 Environmental test

项目 / Item		条件 / Test Condition	规格/Requirement	
5-3-1	耐久性 Durability	配套插拔 30 次后测量接触电阻 A housing with crimped contacts and a header shall be mated and unmated. After repeated 30 cycles, contact resistance shall be measured	接触阻抗 Contact Resistance	20 mΩ MAX.
5-3-2	耐振动性 Vibration	试样安装在 PCB 板上,在以下条件下振动测试,过程中检查电流的连续性。试验后测量接触电阻 The specimen shall be mounted on a PCB and subjected to a vibration test of the following conditions. During the test, current continuity shall be checked. After the test, contact resistance shall be measured Frequency : 10~55~10 Hz/min. Amplitude : 1.5 mm Direction : each of X Y Z-axis directions period: 2 hours for each direction	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 mΩ MAX.
			瞬断 Discontinuity	1μsec. MAX.
5-3-3	耐热性 Heat Aging	在 85±2℃环境中放置 96 小时后测试接触电阻 The specimen shall be placed in a heat oven at 85±2℃ for 96 hours. after the test, contact resistance shall be measured [MIL-STD-202 Method 108A Cond. A]	外观 Appearance	无异状 No Damage

产 品 型 号: B2001 系列 (2.0mm) 无铅环保产品	版本/Rev.	A.0
PART NUMBER: B2001 Series (2.0mm) Lead-free product	日期/Date	Apr.08,2020

项目 / Item		条件 / Test Condition	规格/Requirement	
5-3-4	温度循环 Temperature cycle	在下列条件下对样品进行热冲击试验, 后测量接触电阻、绝缘电阻及耐电压 a,-25°C±2°C的恒温条件下放置 0.5H b,85°C±2°C的恒温条件下放置 0.5H 从 a 到 b 为一个循环,共进行 5 个循环。恢复 1H 后检查。状态转换时间不多于 1H。 Mated connectors are exposed to 5 cycles of: a,-25°C±2°C 0.5Hour b,85°C±2°C 0.5Hour	绝缘电阻 Insulation resistance	500MΩ Min.
			接触阻抗 Contact Resistance	20 mΩ MAX.
			耐电压 Dielectric Strength	无击穿和打火 No breakdown flashover
5-3-5	耐湿性 Humidity	暴露在温度 40°C, 湿度 90%~95%环境下 96 小时后测试 The sample shall be placed for 96 hours at a temperature of 40°C and a humidity of 90%to95%. Measure the contact resistance, insulation resistance and dielectric withstand voltage after the test [MIL-STD-202 Method 103 Cond. A]	绝缘电阻 Insulation resistance	500MΩ Min.
			接触阻抗 Contact Resistance	20 mΩ MAX.
			耐电压 Dielectric Strength	无击穿和打火 No breakdown flashover

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	日期/Date	Apr.08,2020

项目 / Item		条件 / Test Condition	规格/Requirement	
5-3-6	盐水喷雾 Salt Spray	在温度 $35\pm 2^{\circ}\text{C}$ ，盐水浓度 5%下，盐水喷雾 16 ± 1 小时 the specimen shall be subjected to a salt spray test of the following conditions. after the test, it shall be washed with running water and dried naturally before the measurement of contact resistance NaCl solution: 1). Concentration: $5\pm 1\%$ 2). Spray time: 16 ± 1 hours 3). Ambient temperature: 35°C	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 mΩ MAX.
5-3-7	可焊性 Solderability	将样品焊接部位按以下条件浸入锡炉， 锡炉温度 $245\pm 10^{\circ}\text{C}$ ，时间 $2\pm 0.5\text{S}$ Solder temperature: $245\pm 10^{\circ}\text{C}$ Soldering time: $2\pm 0.5\text{S}$	浸渍面积需 95%以上 95% of immersed area must show no voids, pin holes	



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	日期/Date	Apr.08,2020

项目 / Item		条件 / Test Condition	规格/Requirement	
5-3-8	耐焊接热 Resistance to Soldering Heat	样品需焊接部位浸入锡炉中，锡炉温度 260±5°C ，时间 5±1S 后，在正常条件下恢复 1 小时 Solder temperature: 260±5°C Soldering time:5±1S	外观 Appearance	无异状 No Damage



东莞市高嘉精密电子有限公司

DONGGUAN GAOJIA PRECISION ELECTRONICS CO.,LTD
