

Product Specification [产品规格书]:	Document No	PS-2059-01
Subject [主题]: 2.00mm Pitch 2059 Pin Header Series Connector Specification	Date Issued	2023/03/10
	Date Revised	
	Version	X0

This specification is referred to the 2.00mm H5.8 series PIN Header Connector

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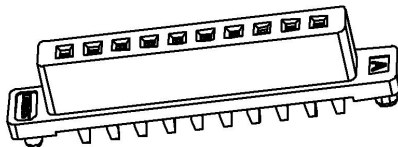
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**【1.适用范围 Scope】**

此种规格包括 2.0mm Pitch 2059 H5.8 Series 连接器规格说明.

This Specification Covers the 2.0mm Pitch 2059 H5.8 Series Connector Specification.

**【2.规格与料号 Spec and Part number】**

规格内容 Specification	产品料号 Production No.	产品图示 Picture of Product
针座 Header	2059FV-10P-9TV1BR-01Q	

**【3.材质与表面处理 Disposal of Material and surface】**

规格内容 Specification	材质 Materials	表面处理 Disposal of Surface
针座 Header	Housing	PA9T UL 94V-0
	PIN	黑色 Black Underplate: Ni 40~80u" (1.0~2.0um) overall Contact plating: Au 1.5u" Min (1.5um) Min Gold plated throughout the region: Au G/F

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

**【4. 额定等级 Ratings and applicable wires】**

项目【Item】	规格【Standard】	
额定电压 Rated Voltage (Max.)	125V	[AC/DC]
额定电流 Rated Current (Max.)	2A	
使用温度范围 Ambient temperature Range	-40°C ~ +125°C	
仓储条件 Storage Condition	温度 Temperature	-40°C ~ +85°C
	湿度 Humidity	85%R.H 最大(未结露) 85%R.H Max.(No Condensation)
	时间 Terms	出货后 6 个月(未拆包装) 6 months after shipping(unopened package)

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**【5.性能 PERFORMANCE】****5-1. 外观检查 Examination of product.**

项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-1-1 产品外观检查 Visual Inspection	产品符合图纸和规格书要求。 Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.

**5-2. 电气的性能 Electrical Performance.**

项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-2-1 接触阻抗 Contact Resistance	公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区。 Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (JIS C5402 5. 4/ EIA-364-23)	Initial: 10 milliohms Max. After Test: 25 milliohms Max
5-2-2 绝缘阻抗 Insulation Resistance	公母配合, 在相邻端子,端子与地片之间,使用 500V 的直流电 1 分钟检测。 Mate connectors, and Apply a voltage of DC 500V for 60±5 s to between Adjacent terminals and measure. (JIS C5402 5. 2/ EIA-364-21)	100 MΩ Min
5-2-3 耐电压 Dielectric Strength	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 Mate connectors, Apply a voltage of AC500V for 60 ±5 s to between adjacent terminals. (JIS C5402 5. 1/ EIA-364-20)	无击穿现象 No Breakdown

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**5-3. 机械的性能 Mechanical Performance.**

项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-3-1 PIN 保持力 PIN Retention Force	公母配合；以每分钟 50±3mm 的速度；拔出的力量。 Mate connectors, pull the at a rate of 25 ±3mm per minute.(EIA-364-1)	1.5Kgf Min

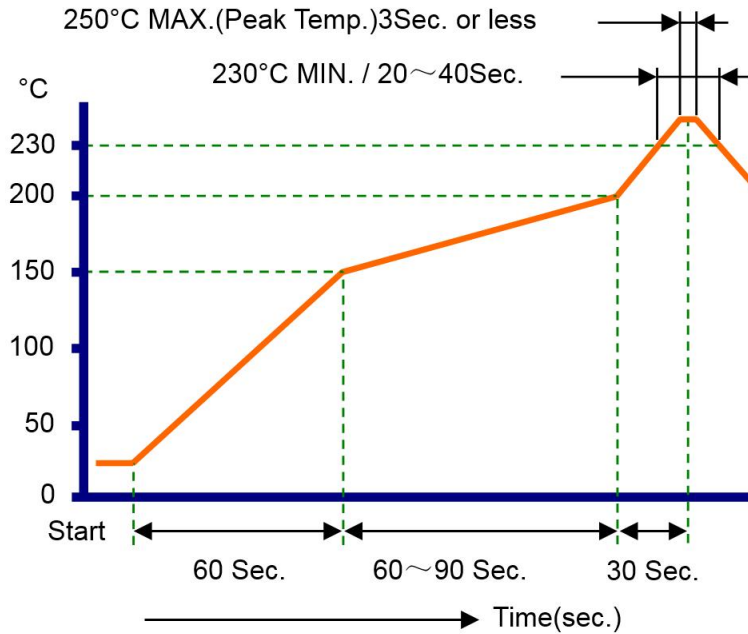
**5-4. 环境性能及其它 Environmental Performance and Others.**

项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-4-1 重复插拔 Repeated Insertion/ Withdrawal	无通电状态；在小于 10 次/分钟的速度下,插拔 10 次 Insert and withdraw actuator up to 10cycles at the speed rate of less than 10cycles/minute.	接触阻抗 Contact Resistance 25 mΩ Max.
5-4-2 耐振动性 Vibration	在装配好公母配合工作状态下: 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 Mate connectors and subject to the following vibration conditions, for period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude: 1.5mm P-P. Frequency: 10-55-10Hz in 1 minute. Duration : 2 hours in each of X,Y,Z axes. (MIL-STD-202 Method 201/ EIA-364-28)	外观 Appearance 无异状 No Damage
		接触阻抗 Contact Resistance 25 mΩ Max.
5-4-3 冷热冲击 Cold and Thermal Shock	低温 -40±3°C, 高温 130±2°C 保持 30 分钟, 5 次循环, Subject mated connectors to 5 cycles between -40 ± 3°C and 130±2°C for 30 minutes. (EIA-364-32)	瞬断 Discontinuity 1 μsec Max
		外观 Appearance 无异状 No Damage
		接触阻抗 Contact Resistance 25 mΩ Max.
		瞬断 Discontinuity 1 μsec Max

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5-4-4	耐湿性 Constant temperature and humidity	在 60±3°C, 相对湿度 90 - 95%的环境下 96 小时后, 放置在室温 1-2 小时 Expose to 60 ± 3°C, relative humidity 90 to 98% for 96 hours. After the test allowed to stand at room temperature for 1-2 hours. (MIL-STD-202F, Method: 103)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	25 mΩ Max.
			绝缘阻抗 Insulation Resistance	100 MΩ Min.
5-4-5	盐水喷雾 Salt Spray	将样品与公母配合连接, 暴露在以下条件下: 在温度 35±2°C NaCl 浓度 5±1% 盐水喷雾 48±4 小时 环境温度: 35 ± 2°C Mate applicable connectors and expose to the following salt mist conditions. NaCl solution Concentration : 5 ± 1% Spray time :48 ±0.5 hours Ambient temperature : 35 ± 2°C (EIA-364-26B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	25 milliohms Max
5-4-6	焊锡附着性 Solder-ability	焊接时间: 3±0.5 秒. 焊接温度: 245±5°C. Soldering Time: 3±0.5second. Solder Temperature: 245±5°C. (MIL-STD-202F, Method: 208)	浸锡 Solder Wetting	浸渍面积需 95%以上 95% of immersed area must show no voids, pin holes
5-4-7	焊锡耐热性 Solder-Resistance	回流焊请参考回流焊条件; 烙铁方法: 距离端子焊脚和固定片焊脚 0.2mm 焊接时间: 5 秒最大 焊接温度: 370 ~ 400°C 1) Soldering iron method 0.2mm from terminal tip and fitting nail tip. Soldering time: 5 seconds Max. Solder temperature : 370~400°C 2) When reflowing...Refer to paragraph 6.	外观 Appearance	无异状 No Damage
5-4-8	机械冲击 Mechnaical Shock	公母配合加电状态下测试; 6 个面各 3 次共 18 次半正弦波测试, 加速度 490m/S <sup>2</sup> (50G), 冲击时间 11 毫秒. Mate connectors, add to each 3 times with impact of 490 m/S <sup>2</sup> on action time 11 milliseconds at 6 directions mutually vertical including fitting axis in DC 1m A electricity state. (MIL-STD-202F, Method:213)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	25 milliohms Max
			瞬断 Discontinuity	1 毫秒最大 1 microsecond max.

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5-4-9	温度上升 Temperature rise	加载额定电流 5 小时 Mate connectors, test temperature rise of contact when the maximum AC rated current is passed.	温度上升 Temperature rise	30°C Max.
5-4-10	耐热性 Heat Resistance	装公母配合在 130±3°C 环境下放置 96 小时, 然后置于室温放置 1-2 小时。Mate connectors,, exposing for 96 hours in the atmosphere of 130±3 degree C. After the test allowed to stand at room temperature for 1-2 hours.	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	25 milliohms Max.
5-4-11	耐寒性 Cold resistance	装公母配合在 -40±3°C 环境下放置 96 小时, 然后置于室温放置 1-2 小时。Mate connectors, exposing for 96 hours in the atmosphere of -40±3 degree C. After the test allowed to stand at room temperature for 1-2 hours.	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	25 milliohms Max.

**[6. SMT 回流条件 SMT REFLOW CONDITION]**



Solder by hand temperature: 350°C, 3-5second

温度条件曲线图/ 基板上温度

TEMPERATURE CONDITION GRAPH/ (TEMPERATURE ON BOARD PATTERN SIDE)

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.

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**【7.测试组 Test Group】**

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H	Group I	Group J	Group K	Group L	Group M
Examination of Product	1,4	1,4	1,4	1,5	1,4	1,3	1	1,3	1,3	1,3	1,3	1,3	1,3
Contact Resistance	2,5	2,5	2,5	2,6	2,5								
Insulation Resistance				3,7									
Dielectric Strength						2							
PIN Retention Force							2						
Repeated Actuator Insert/ With	3												
Vibration		3											
Cold and Thermal Shock			3										
Constant temp and humidity				4									
Salt Spray					3								
Solder-ability								2					
Resistance to Soldering Heat									2				
Mechnaical Shock										2			
Temperature rise											2		
Heat Resistance												2	
Cold resistance													2