

Product Specification [产品规格书]:	Document No	PS-HRS-2033-01
Subject [主题]: 2.00mm Pitch HRS-2033 Series Connector Specification	Date Issued	2020/07/02
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This specification is referred to the HRS-2033 series wire to board connector

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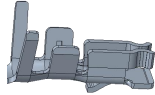
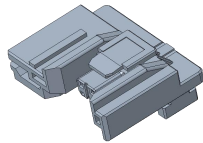
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【1.适用范围 Scope】

此种规格包括 2.00mm Pitch HRS-2033 Series 连接器规格说明.

This Specification Covers the 2.00mm Pitch HRS-2033 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
端子/Terminal	HRS-1806T-P08SX-01Q	
胶壳/Housing	HRS-2033H-02-N0HFNC	

【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
端子/Terminal	磷铜/Phosphor Bronze	40~120u" Ni \80~200u" Bright Tin
胶壳/Housing	PA66	UL 94V-0

(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】

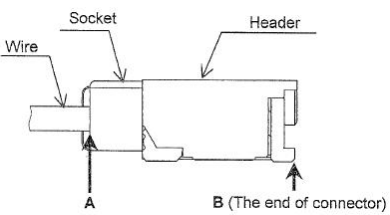
项 目【Item】	规 格【Standard】	
额定电压 Rated Voltage (Max.)	250V	[AC/DC]
额定电流 Rated Current (Max.)	3.0 A	
使用温度范围 Ambient temperature Range	-40℃~+105℃	
适用线径 Applicable wire insulation O.D	AWG#22~26(0.128~0.326mm²) Insulation O.D:1.30mm(Max.)	

*升温时含端子.Including terminal temperature rise.

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【5.性能 PERFORMANCE】

5-1. 电气的性能 Electrical Performance.

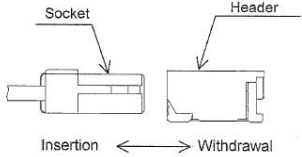
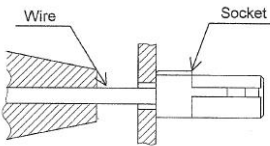
项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-1-1 接触阻抗 Contact Resistance	<p>公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区. Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A).</p> 	<p>Initial: 10 milliohms Max. After Test: 20 milliohms Max.</p>
5-1-2 绝缘阻抗 Insulation Resistance	<p>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. Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)</p>	1000 Megohms Min.
5-1-3 耐电压 Dielectric Strength	<p>公母配合,在相邻端子,端子与地片之间,使用 1700V 的交流电 1 分钟,检测连接器. Mate connectors, apply 1000V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)</p>	<p>不出现中断等情况 No Breakdown and Flashover</p>
5-1-4 铆线后端子接触阻抗 Contact resistance on crimped portion	<p>铆线后之端子,开放电压 20mV 以下,电流 10mA 检测连接器. Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.</p>	10 milliohms Max.

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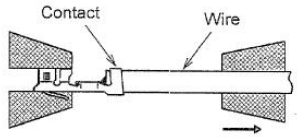
5-2. 机械的性能 Mechanical Performance.

项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】
5-2-1	插拔力 Insertion & withdraw Force	以每分钟 50±3mm 的速率插入和拔出。 Insert and withdraw Connectors at the speed rate of 50±3mm/minute.	参照第 6 项 Refer to paragraph 6
			
5-2-2	端子保持力 Terminal/ Housing Retention Force	以每分 50±3mm 的速率,将端子从 Housing 内轴向拔出的力量。 Apply axial pull out force at the speed rate of 50±3mm/minute on the FFC in the housing.	9.8N {1.0kgf} Min.
			
5-2-3	端子插入力 Terminal Insertion Force	铆线后之端子插入 Housing 所需最大力量。 Insert the crimped terminal into the housing.	9.8N {1.0kgf} Max.
5-2-4	Lock HSG 卡扣保持力 Lock Retention Force	以每分 50±3mm 的速率,将 HSG 从 Wafer 内轴向拔出的力量。 Apply axial push force at the speed rate of 50±3mm/minute.	14.7N {1.50kgf} Min.

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项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】			
5-2-5 端子压着强度 (Crimped connections)	固定铆线后的端子, 使电线与端子分离时所需的最小力量. Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).	AWG 线号 (平方毫米)	#22 (0.35mm ²)	#24 (0.22mm ²)	#26 (0.13mm ²)
		Spec. Kgf Min.	4.0	3.0	2.0
		Note> As for unspecified wire sizes in this specification define values with clients			

5-3. 环境性能及其它 Environmental Performance and Others.

项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】	
5-3-1 重复插拔 Repeated Insertion/ Withdrawal	以每分钟不超过 10 次的速率,将公母插拔 30 次. When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.	接触阻抗 Contact Resistance	20 milliohms Max.
5-3-2 温升测试 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 (EIA364-70,Method 1) Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise. (EIA364-70,Method 1)	温升测试 Temperature rise	30°C Max.
5-3-3 振动测试 Vibration test	振幅: 1.5mm P-P 时间: 20~200~20 Hz in 3minute 持续时间: 每轴向 3 小时 加速度: 44m/S ² 开放电压: 20mV 以下 开放电流: 10mA 以下 Amplitude: 1.5mm P-P Sweep time: 20~200~20 Hz in 3 minute Duration: 3 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	外观 Appearance	无异状 No Damage
		接触阻抗 Contact Resistance	20 milliohms Max.
		瞬断 Discontinuity	1 micro-second Max.
		电压降落 Voltage Drop	20mV/A Max
5-3-4 冲击测试 Shock test	在 X.Y.Z 上 6 个方向上,以 491m/s ² (100g 的力量)冲击下各 3 回. 491m/s ² {100G}, 3 strokes in each X.Y.Z. axes. (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)	外观 Appearance	无异状 No Damage
		接触阻抗 Contact Resistance	20 milliohms Max.
		瞬断 Discontinuity	1 micro-second Max.

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5-3-5	耐热性 Heat Resistance	105±2°C,96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.

【6.综合插入力及拔出力 INSERTION/WITHDRAWAL FORCE】 <Connector mating force>SSS

PIN 数 No. of CKT	初次插入力(最大值) First Insertion (kgf Max.)	30 次拔出力(最小值) 30 th Withdrawal (kgf Min.)	PIN 数 No. of CKT	初次插入力(最大值) First Insertion (kgf Max.)	30 次拔出力(最小值) 30 th Withdrawal (kgf Min.)
2	2.00	0.20			

注：以上插拔次数为 30 次

Note: Insertion and Withdrawal for 30Cycles