

Product Specification [产品规格书]:	Document No	PS-HRS-2517-01
Subject [主题]:	Date Issued	2020/6/5
2.50mm Pitch HRS-2517 Series Connector Specification	Date Revised	2020/6/5
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This specification is referred to the 2.50mm series wire to board connector

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【1.适用范围 Scope】

此种规格包括 2.50mm Pitch HRS-2517 Series 连接器规格说明.

This Specification Covers the 2.50mm Pitch HRS-2517 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	/	见图面/Refer to the drawing
锁片/Lock	/	见图面/Refer to the drawing
固定片/Fitting nail	/	见图面/Refer to the drawing
本体/Housing	/	见图面/Refer to the drawing

【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	接触区: G/F Contact area: G/F Plated 底材: 镀镍 Under plating: Nickel plated.
锁片/Lock	磷铜/Phosphor Bronze	表面镀雾锡 Matte tin plated overall 底材: 镀镍 Under plating: Nickel plated.
固定片/Fitting nail	黄铜/Brass	表面镀雾锡 Matte tin plated overall 底材: 镀镍 Under plating: Nickel plated.
胶壳/Housing	LCP / PA66	/

(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】

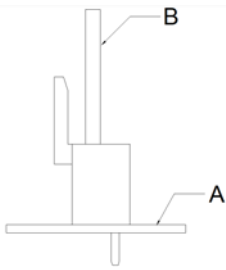
项 目【Item】	规 格【Standard】
4-1. 额定电压 Rated Voltage (Max.)	100V
4-2. 额定电流 Rated Current (Max.)	0.5A
4-3. 使用温度范围 Ambient temperature Range	-20℃~+105℃
4-4. 适用线径 Applicable wire insulation O.D	AWG 28#~30# Insulation O.D. 1.00mm(Max.)

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

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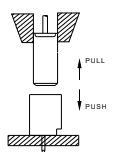
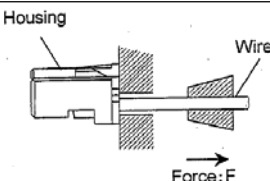
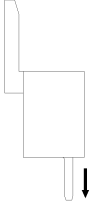
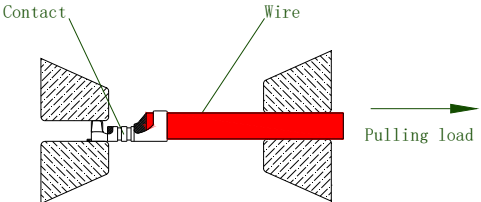
【5.性能 PERFORMANCE】

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	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). 	Initial: 30 milliohms Max. After Test: 50 milliohms Max.
5-1-2 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,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)	1000 Megohms Min.
5-1-3 耐电压 Dielectric Strength	公母配合,在相邻端子,端子与地片之间,使用 1000V 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)	外观无损伤, 无打火花 No Breakdown and Flashover

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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 25.4±3mm 的速率插入和拔出。 Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.	90 度、180 度插入力：5.0Kgf Max. 线端插入力：4.0Kgf Max.		
			90 度、180 度拔出力：1.7Kgf Min. 线端拔出力：1.5Kgf Min.		
5-2-2	线端端子保持力 Terminal/ Housing Retention Force	以每分 25.4±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 25.4±3mm/minute on the terminal assembled in the housing.	0.5kgf Min.		
					
5-2-3	线端端子插入力 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.	1.0kgf Max.		
5-2-4	板端端子保持力 Terminal/ Housing Retention Force	以每分 25.4±3mm 的速率,将端子从本体内轴向拔出的力量。 Apply axial push force at the speed rate of 25.4±3mm/minute.	0.5kgf min.		
					
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	28	30
			Spec.kgf. Min.	1.0	0.8
			Note> As for unspecified wire sizes in this specification define values with clients		

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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 5 次的速率,将公母插拔 100 次. When mated up to 100 cycles repeatedly by the rate of 5 cycles per minute.	接触阻抗 Contact Resistance	50 milliohms Max.
5-3-2	温升测试 Temperature Rise	公母对插后,在通过额定电流下,所测定的温度. Carrying rated current load.	温升测试 Temperature rise	30℃ Max.
5-3-3	振动测试 Vibration test	振幅: 1.52mm P-P 时间: 10~55~10 HZ in 1 minute 持续时间: 每轴向 2 小时 Amplitude: 1.52mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 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	50 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
5-3-4	冲击测试 Shock test	在 X.Y.Z 上 6 个方向上,以 490m/s2(50g 的力量)冲击下各 3 回.490m/s2{50G}, 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	50 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.

WRITTEN BY: Bin		APPROVED BY: Robing	Sheet: 6 of 8
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5-3. 环境性能及其它 Environmental Performance and Others.

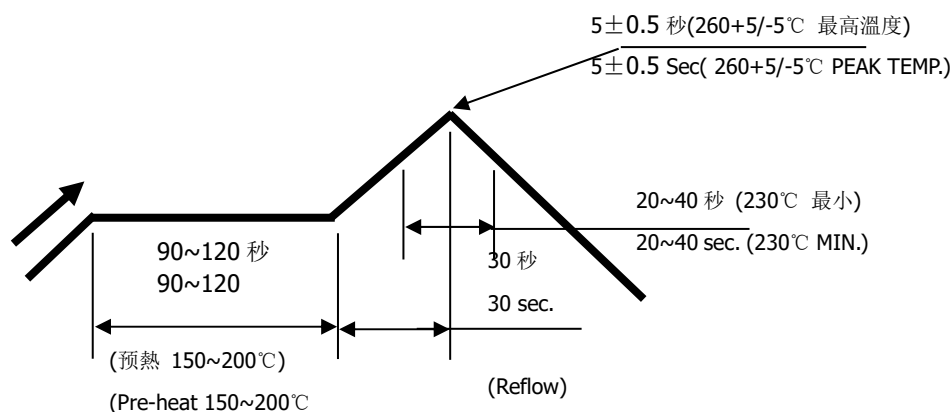
项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】	
5-3-5	耐热性 Heat Resistance	105±2°C,96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	50 milliohms Max.
5-3-6	耐寒性 Cold Resistance	-40±5°C,96 hours. (Based upon EIA-364-105) (Based upon EIA-364-105)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	50 milliohms Max.
5-3-7	耐湿性 Humidity	温度: 40±2°C 湿度: 90~95%(RH) 持续时间: 48 hours Temperature: 40±2°C Relative Humidity: 90~95% Duration: 48 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	50 milliohms Max.
			耐电压 Dielectric Strength	Must meet 5-1-3
			绝缘阻抗 Insulation Resistance	500 Megohms Min.
5-3-8	温度变化 Temperature Cycling	从-40°C持续 30 分钟升至+105°C持续 30 分钟,循环 5 次. 5 cycles of: a) -25°C 30 minutes. b) +105°C 30 minutes. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	50 milliohms Max.
5-3-9	盐水喷雾 Salt Spray	在温度 35±2°C,盐水浓度 5±1%下,盐水喷雾 48±1 小时. 48±1 hours exposure to a salt spray from the 5±1% solution at 35±2°C. (Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B).	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	50 milliohms Max.
5-3-10	焊锡附着性 Solder-ability	焊接时间: 3±0.5 秒. 焊接温度: 240±5°C. Soldering time: 3±0.5sec solder. Temperature: 240±5°C.	Solder Wetting	浸渍面积需 90% 以上 90% of immersed area must show no voids, pin holes.

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5-3-11	焊锡耐热性 Resistance to Soldering Heat	焊接时间: 5 ± 0.5 秒. 焊接温度: $260 \pm 5 / -5^{\circ}\text{C}$. Soldering time: 5 ± 0.5 sec solder. Temperature: $260 \pm 5 / -5^{\circ}\text{C}$. (Based upon EIA-364-56A)	外观 Appearance	无异状 No Damage
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【6. SMT 回流条件 SMT REFLOW CONDITION】



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.