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Product Specification [产品规格书]:	ISSUED BY: Engineering Dept	
Subject [主题]: 1.25mm Pitch 9821 Series Connector Specification	Date Issued	2013/07/21
	Date Revised	2014/08/15

This specification is referred to the 1.25mm series wire to board connector

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【1.适用范围 Scope】

此种规格包括 1.25mm Pitch 9821 Series 连接器规格说明.

This Specification Covers the 1.25mm Pitch 9821 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	9821T-PXX 9821TM-PSN	NONE
胶壳/Housing	9821H-XXX-XX 9821HF-XX-XX	NONE
针座/Wafer	9821WV-XX-XXXX (DIP 180 度) 9821WR-XX-XXXX (DIP 90 度) 9821WVS-XX-XXXX (SMT 180 度) 9821-WRS-XX-XXXX (SMT 90 度)	NONE

【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	Nickel: Over 30μ″ . Tin: Over 70μ″
胶壳/Housing		PA66	UL 94V-0
针座/Wafer	Base	High Temperature Plastic	UL 94V-0
	PIN	黄铜/Brass	Over Tin 70μ″ / Over 30μ″ Nickel
	Solder tab	黄铜/Brass	Over Tin 70μ″ / Over 30μ″ Nickel

（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.)	1A	
使用温度范围 Ambient temperature Range	-40℃~+85℃	
适用线径 Applicable wire insulation O.D	AWG 28#、30#、32# Insulation O.D. 0.90mm(Max.)	

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

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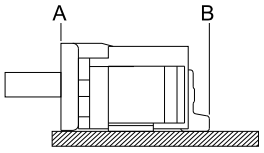
【5.性能 PERFORMANCE】

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: 20 milliohms Max. After Test: 40 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)	100 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 250V 的交流电 1 分锺,检测连接器. Mate connectors, apply 250V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)	不出现中断等情况 No Breakdown and Flashover
5-1-4	铆线后端子接触阻抗 Contact resistance on crimped portion	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.	10 milliohms Max.

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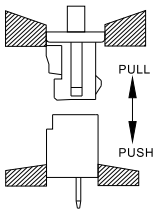
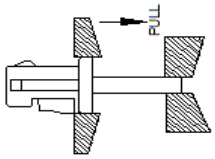
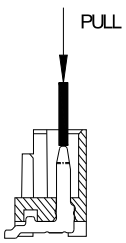
5-2. 机械的性能 Mechanical Performance.

项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】
5-2-1	插拔力 Insertion & Retention Force	以每分锺 25.4±3mm 的速率插入和拔出. Insert and withdraw Connectors at the speed rate of 25.4±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 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. 	4.9N {0.5kgf} 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.	4.9N {0.5kgf} Max.
5-2-4	Pin 针保持力 Pin Retention Force	以每分 25.4±3mm 的速率,将 PIN 针从 Wafer 内轴向拔出的力量. Apply axial push force at the speed rate of 25.4±3mm/minute. 	4.9N {0.50kgf} min.

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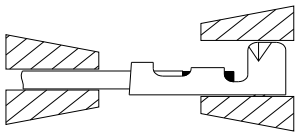
项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】			
5-2-5	端子压着强度 Tensile strength (Crimped connections)	固定铆线后的端子，使电线与端子分离时所需的最小力量. Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).	AWG#	#28	#30	#32
			Spec.kgf. Min.	1.0	0.5	0.3
			Note> As for unspecified 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	以每分锺不超过 10 次的速率,将公母插拔 50 次. When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	接触阻抗 Contact Resistance	40 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. (UL 1977)	温升测试 Temperature rise	30°C Max.
5-3-3	耐振动性 Vibration	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 Amplitude: 1.5mm 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	40 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
5-3-4	耐冲击性 Shock	在 X.Y.Z 上 6 个方向上,以 490m/s^2(50g 的力量)冲击下各 3 回.490m/s^2{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	40 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.

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5-3-5	耐热性 Heat Resistance	85±2℃,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	40 milliohms Max.
5-3-6	耐寒性 Cold Resistance	-25±5℃,96 hours. (Based upon EIA-364-105)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
5-3-7	耐湿性 Humidity	温度: 40±2℃ 湿度: 90~95%(RH) 持续时间: 96 hours Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 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	40 milliohms Max.
			耐电压 Dielectric Strength	Must meet 5-1-3
			绝缘阻抗 Insulation Resistance	100 Megohms Min.
5-3-8	温度变化 Temperature Cycling	从-55℃持续 30 分锺升至+85℃持续 30 分锺,循环 5 次. 5 cycles of: a) -55℃ 30 minutes. b) +85℃ 30 minutes. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
5-3-9	盐水喷雾 Salt Spray	在温度 35±2℃,盐水浓度 5±1%下,盐水喷雾 24±1 小时. 24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃ (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	40 milliohms Max.
5-3-10	焊锡附着性 Solder-ability	焊接时间: 5±0.5 秒. 焊接温度: 245±5℃. Soldering Time: 5±0.5second. Solder Temperature: 245±5℃. (Based upon EIA-364-52)	Solder Wetting	浸渍面积需 95%以上 95% of immersed area must show no voids, pin holes.

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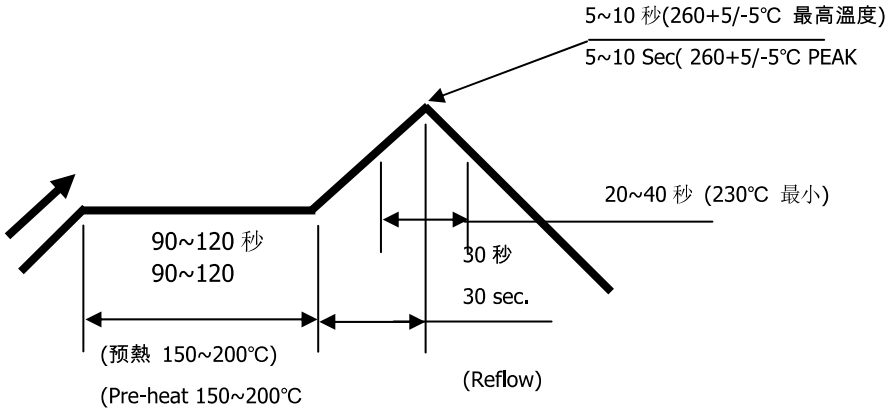
项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】	
5-3-11	焊锡耐热性 Solder-Resistance	焊接时间: 5~10 秒. 焊接温度: 260+5/-5°C. Soldering time:5~10 sec solder. Temperature:260+5/-5°C. (Based upon EIA-364-56A)	外观 Appearance	无异状 No Damage

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

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) 30th 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) 30th Withdrawal (kgf Min.)
2	2.0	0.28	9	5.5	0.56
3	2.5	0.30	10	6.0	0.59
4	3.0	0.33	11	6.5	0.62
5	3.5	0.38	12	7.0	0.65
6	4.0	0.43	13	7.5	0.68
7	4.5	0.48	14	8.0	0.71
8	5.0	0.53	15	8.5	0.74

注：以上插拔次数为 30 次 Note：Insertion and Withdrawal for 30Cycles

【7. SMT 红外线回流条件 SMT INFRARED 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.