

东莞市翰皓精密电子有限公司

DONGGUAN HANHAO PRECISION ELECTRONIC CO.,LTD

Product Specification [产品规格书]:	Document No	PS-9025-01
Subject [主题]:	Date Issued	2013/01/10
2.50mm Pitch J2509 Series Connector Specification	Date Revised	2020/01/04
	Version	B

This specification is referred to the 2.50mm series board in connector

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【1.适用范围 Scope】

此种规格包括 2.5mm Pitch J2509 Series连接器规格说明.

This Specification Covers the 2.5mm Pitch J2509 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	J2509RT J2509VT	NONE
胶壳/Housing	J2509HR-XX J2509HV-XX	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	Tin Plated: Over 100 μ " .Nickel: Over 50 μ " .
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.)	3A	
使用温度范围 Ambient temperature Range	-40 $^{\circ}$ C ~+105 $^{\circ}$ C	
适用线径 Applicable wire insulation O.D	AWG#22~24 (0.35~0.22mm ²)	Insulation O.D. 1.60mm(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.

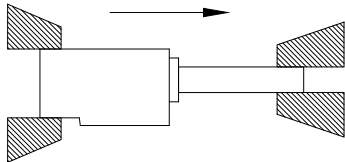
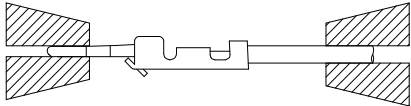
项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-1-1 绝缘阻抗 Insulation Resistance	公母配合,在相邻端子之间,使用 500V 的直流电,检测连接器. Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)	1000 Megohms Min.
5-1-2 耐电压 Dielectric Strength	公母配合,在相邻端子,端子与地片之间,使用 800V 的交流电 1 分钟,检测连接器. Mate connectors, apply 800V 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
5-1-3 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	端子保持力 Terminal/ Housing Retention Force	<p>以每分 50±3mm 的速率,将端子从 Housing 内轴向拔出 的力量.</p> <p>Apply axial pull out force at the speed rate of 50±3mm/minute on the terminal assembled in the housing.</p>	9.8N {1.0kgf} Min.			
						
5-2-2	端子插入力 Terminal Insertion Force	<p>铆线后之端子插入 Housing 所需最大力量.</p> <p>Insert the crimped terminal into the housing.</p>	9.8N {1.0kgf} Max.			
5-2-3	端子压着强度 Crimped contact	<p>固定铆线后的端子, 使电线与端子分离时所需的最小力 量.</p> <p>Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).</p>	AWG 线号 (平方毫米)	#22 (0.35 mm ²)	#24 (0.22mm ²)	#26 (0.13 mm ²)
			Spec. kgf Min.	5.0	3.0	2.0
			Note> As for unspecified wire sizes in this specification define values with clients			

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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】	
5-3-1	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.
5-3-2	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
			瞬断 Discontinuity	1 micro-second Max.
			电压降落 Voltage Drop	20mV/A Max
5-3-3	冲击测试 Shock test	在 X.Y.Z 上 6 个方向上,以 981m/s ² (100G 的力量)冲击下各 3 回. 作用时间: 6ms 981m/s ² {100G}, 3 strokes in each X.Y.Z. axes. Operation time:6ms (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond. A)	外观 Appearance	无异状 No Damage
			瞬断 Discontinuity	1 micro-second Max.
5-3-4	耐寒性 Cold Resistance	-40±5°C,96 hours. (Based upon EIA-364-105)	外观 Appearance	无异状 No Damage
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
5-3-6	耐湿性 Humidity	温度: 40±2°C 湿度: 90~95%(RH) 持续时间: 96 hours	外观 Appearance	无异状 No Damage

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		Temperature: 40±2°C Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	耐电压 Dielectric Strength 绝缘阻抗 Insulation Resistance	Must meet 5-1-2 500 Megohms Min.
5-3-7	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-364-26B/MIL-STD-202 Method 101D Cond.B).	外观 Appearance	无异状 No Damage
5-3-8	焊锡附着性 Solder-ability	焊接时间: 3~5 秒. 焊接温度: 245±5°C. Soldering Time: 3~5second. Solder Temperature: 245±5°C. (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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6.测试顺序 QUALIFICATION TEST SEQUENCE

Item 项目	DESCRIPTION 叙述	SEQUENCE 顺序											METHOD 方法
		A	B	C	D	E	F	G	H	I	J	K	
1	Examination of product 外观检验	1,3	1,4	1	1	1	1,7	1,7	1,7	1,3	1,3	1,3	
2	Insulation resistance 绝缘阻抗						2,5	2,5	2,5				5-1-1
3	Dielectric withstanding Voltage 耐电压						3,6	3,6	3,6				5-1-2
4	铆线后端子接触阻抗 Contact resistance on crimped portion										2		5-1-3
5	端子保持力 Terminal/Housing Retention Force			2									5-2-1
6	端子插入力 Terminal Insertion Force				2								5-2-2
7	端子压着强度 (Crimped contact)					2							5-2-3
8	TEMPERATURE RISING 温升测试	2											5-3-1
9	Vibration 振动测试		2										5-3-2
10	冲击测试 Shock test		3										5-3-3
11	耐热性 Heat Resistance						4						5-3-4
12	耐寒性 Cold Resistance							4					5-3-5
13	耐湿性测试 Humidity								4				5-3-6
14	Salt spray 盐水喷雾									2			5-3-7
15	Solderability 沾锡性											2	5-3-8