

Product Specification [产品规格书]:	Document No.	PS-2562-01
Subject [主题]:	Date Issued	2023/09/20
2.80*0.80mm Series press fit multispring Specification	Date Revised	2023/09/20
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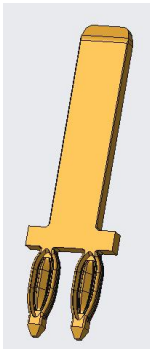
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【1.适用范围 Scope】

此种规格包括 0.80mm Series press fit multispring 连接器规格说明.

This Specification Covers the 0.80mm Series press fit multispring Specification.

【2.规格与料号 Specification and Part number】

规格内容 Specification	产品料号 Production No.	产品图示 Picture of Product
PIN 针/PIN Header connectors	280080-500*1270-VQ-HSR1	

【3.材质与表面处理 Material & surface treatment】

规格内容 Specification	材质 Materials	表面处理 Surface treatment
PIN 针/PIN Header connectors	铜合金/ Copper alloy	Sn:1~3um(40~120u")

(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&接线范围 Ratings and applicable wires & Wiring range】

项目【Item】	规格【Standard】	
额定电压 Rated Voltage	250V	[AC/DC]
额定电流 Rated Current	24A	
使用温度范围 Ambient temperature Range	-40°C ~ +125°C	
适用线径 Applicable wire insulation O.D	/	

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

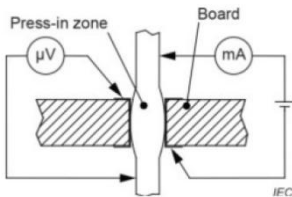
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【5.性能 PERFORMANCE】

5-1. 外观检查 Examination of product.

项目 【Item】	规格要求 【Specification requirements】	参考标准 【Reference standard】
5-1-1 产品外观检查 Visual Inspection	符合图纸要求 Meets requirements of product drawing	EIA-364-18 根据产品图纸进行外观和尺寸检查 Visual and dimensional inspection per product drawing

5-2. 电气的性能 Electrical Performance.

项目 【Item】	规格要求 【Specification requirements】	参考标准 【Reference standard】
5-2-1 接触阻抗 Contact Resistance	<p>公母配合/PIN 针与 PCB 板对配,开放电压 20mV 以下,电流 100mA 检测连接器 A~V 点. Mate connectors/PIN matching with PCB board, measure by dry circuit, 20mV MAX, 100mA.</p> 	<p>IEC 60352-5 Initial: 10 milliohms Max. After Test: 20 milliohms Max.</p>
5-2-2 耐电压 Dielectric Strength	<p>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.</p>	<p>不出现中断等情况 No Breakdown and Flashover</p>

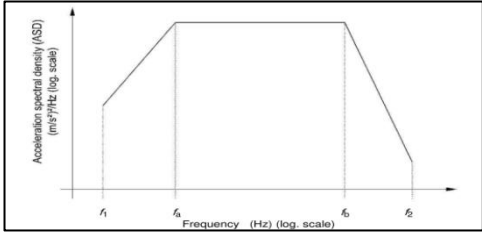
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5-3. 机械的性能 Mechanical Performance.

项目 【Item】	条件 【Test Condition】	参考标准 【Reference standard】
5-3-1 插入力 Insertion Force	以每分钟 50mm 的速率插入 PCB 板。 插入力满足最大 400N Insert the PCB board at a rate of 50mm/minute. 400 N maximum for pokein connection.	参照 EIA-364-5 Refer to EIA-364-5
5-3-2 拔出力 Retention Force	以每分钟 50mm 的速率从 PCB 板拔出。 拔出力最小 80N Remove the PCB board at a rate of 50mm/minute. Terminal retention force 80N Min.	参照 EIA-364-5 Refer to EIA-364-5

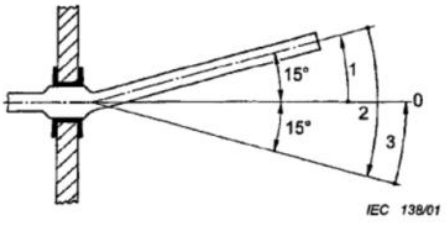
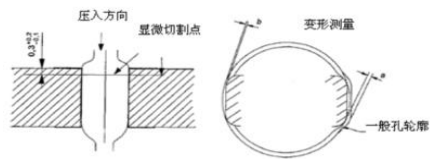
5-4. 环境性能及其它 Environmental Performance and Others.

项目 【Item】	条件 【Test Condition】	规格 【Requirement】	参考标准 【Reference standard】
5-4-1 温度冲击 Temperature shock	持续时间: 144 次循环 -40°C/+130°C, 每次 15 分钟 Duration: 144 cycles -40°C / +130°C , 15 minutes each.	接触阻抗 Contact Resistance 20 milliohms Max	参照 EN 60068 2-14.
5-4-2 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 Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise	温升测试 Temperature rise 30°C Max.	参照 EIA364-70, Method 1

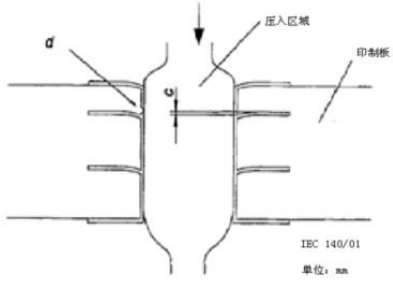
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5-4-3	随机振动 Random vibration	TW (Temperatur-wechsel):温度交变: 5-1000 Hz; 4.2gn (有效); 24 小时/轴; 所有 3 轴。 每 8 小时/轴 3 个温度循环; 115°C 时 1 小时/-40°C 时 1.5 小时 5-1000 Hz; 4.2gn (eff.); 24 h/axis; all 3 axis. 3 temperature cycles of each 8 h/axis ; 1 h at 115°C / 1.5 h at -40°C  <table border="1" data-bbox="443 987 1002 1153"> <thead> <tr> <th>Category</th> <th>f₁</th> <th>ASD_{f1}</th> <th>f₂</th> <th>f₃</th> <th>ASD_{f2}/f₃</th> <th>f₄</th> <th>ASD_{f4}</th> <th>R_{r,ms} value</th> </tr> <tr> <th>No.</th> <th>Hz</th> <th>(m/s²/Hz)</th> <th>Hz</th> <th>Hz</th> <th>(m/s²/Hz)</th> <th>Hz</th> <th>(m/s²/Hz)</th> <th>ms²</th> </tr> </thead> <tbody> <tr> <td>1 a</td> <td>(10)^a</td> <td>1.44</td> <td>5</td> <td>40</td> <td>1.44</td> <td>500</td> <td>0.0144</td> <td>(10.2)</td> </tr> <tr> <td>1-b</td> <td>5</td> <td>0.66</td> <td>5</td> <td>20</td> <td>0.66</td> <td>500</td> <td>0.016</td> <td>6.5</td> </tr> <tr> <td>2</td> <td>10</td> <td>1.0</td> <td>10</td> <td>200</td> <td>1.0</td> <td>500</td> <td>0.3</td> <td>18.7</td> </tr> <tr> <td>3</td> <td>10</td> <td>2.0</td> <td>10</td> <td>12</td> <td>2.0</td> <td>150</td> <td>0.16</td> <td>8.0</td> </tr> <tr> <td>4</td> <td>10</td> <td>0.037</td> <td>30</td> <td>200</td> <td>0.33</td> <td>500</td> <td>0.053</td> <td>9.0</td> </tr> </tbody> </table>	Category	f ₁	ASD _{f1}	f ₂	f ₃	ASD _{f2} /f ₃	f ₄	ASD _{f4}	R _{r,ms} value	No.	Hz	(m/s ² /Hz)	Hz	Hz	(m/s ² /Hz)	Hz	(m/s ² /Hz)	ms ²	1 a	(10) ^a	1.44	5	40	1.44	500	0.0144	(10.2)	1-b	5	0.66	5	20	0.66	500	0.016	6.5	2	10	1.0	10	200	1.0	500	0.3	18.7	3	10	2.0	10	12	2.0	150	0.16	8.0	4	10	0.037	30	200	0.33	500	0.053	9.0	外观无异状\无瞬断(1微秒) Appearance is the same\no instantaneous break.	/
			Category	f ₁	ASD _{f1}	f ₂	f ₃	ASD _{f2} /f ₃	f ₄	ASD _{f4}	R _{r,ms} value																																																								
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5-4-4	干热储存 Storage in dry heat	持续时间: 120 小时; 温度: +125°C Duration: 120 h; temperature: +125°C	外观无异状 Appearance No Damage	参照 EN 60068 2-2																																																															
			接触阻抗 Contact Resistance 20 milliohms Max.																																																																
5-4-5	工业气体 Industrial atmosphere	0.20 ppm SO ₂ ; 0.01 ppm H ₂ S; 0.20 ppm NO ₂ ; 0.01 ppm Cl ₂ 循环量 1 m ³ /h, 21 天; 相对湿度: 75%. 0.20 ppm SO ₂ ; 0.01 ppm H ₂ S; 0.20 ppm NO ₂ ; 0.01 ppm Cl ₂ Circulation volume 1 m ³ /h, 21 days; rel. humidity: 75%.	外观无异状 Appearance No Damage	参照 DIN 41640 T72																																																															
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5-4-6	湿热循环 Damp heat cyclic	持续时间 10 个循环,24 小时;下限:+25°C,上限:+55°C. duration 10 cycles of 24h; lower limit: +25 °C, upper limit: +55°C	外观无异状 Appearance No Damage	参照 EN 60068 2-30(6.3.3 2a)																																																															
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6. 弯曲测试、截面切片试验 Bending test、Cross-sectional slice test

项目 【Item】		条件 【Test Condition】	规格 【Requirement】	参考标准 【Reference standard】
6-1-1	弯曲测试 Bending test	<p>压入端子的自由端尽头应在一个方向上弯曲,压入端子的另一个自由端尽头应在垂直的方向上弯曲.如图1所示,弯曲距离1、2、3考虑作为一个周期.</p> <p>The free end of the press-in terminal should be bent in one direction, and the other free end of the press-in terminal should be bent in the vertical direction. As shown in Figure 1, the bending distances 1, 2 and 3 are considered as a cycle.</p>  <p>图1 弯曲试验安排</p>	无断裂 No fracture	NA
6-2-1	横向截面切片试验 Transverse section slice test	<p>1. 横向切片: 电镀通孔中钻孔轮廓变形量“a”应小于70μm。电镀层的最小厚度应大于8μm。在通孔的电镀层不能有裂纹。见图3。</p> <p>1. Transverse slicing: The deformation "a" of the drilling profile in the electroplating through hole should be less than 70μm. The minimum thickness of electroplating layer should be greater than 8μm. There must be no cracks in the electroplating layer of the through hole. See figure 3.</p>  <p>图3 压入连接横向切割图</p>	满足规格 Meet the specification requirements	参照 IEC60326-2 (8.3.2)

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6-2-2	纵向截面切片 试验 Longitudinal section slice test	<p>纵向切片：电镀通孔连接图中的变形量“c”不能大于50μm(见图4)。电镀通孔的电镀层和导体都不能有裂纹“d”。双面印制板，外层也要满足此要求。</p> <p>Longitudinal slicing: The deformation "c" in the connection diagram of plated through holes should not be greater than 50μm (see Figure 4). There must be no crack "D" on the plated layer and conductor of the plated through hole. Double-sided printed boards, the outer layer should also meet this requirement.</p>  <p>图4 压入连接的纵向切割</p>	<p>满足规格 Meet the specification requirements</p>	<p>参照 IEC60326-2 (8.3.2)</p>