



|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |

This specification is referred to the 2033 series wire to board connector

**索引【INDEX】**

1. 适用范围 【Scope】
2. 规格与料号 【Spec and Part number】
3. 材质与表面处理 【Disposal of Material and surface】
4. 额定等级 【Ratings and applicable wires】
5. 性能 【 Performance 】
6. 5-1. 电气的性能【Electrical Performance.】
7. 5-2. 机械的性能【Mechanical Performance】
8. 5-3. 环境性能及其它【Environmental Performance and Others】
9. 综合插入力及拔出力 【 Insertion/Withdrawal Force 】

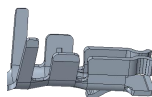
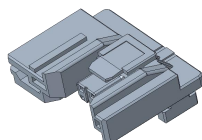
|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |

**【1.适用范围 Scope】**

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

This Specification Covers the 2.00mm Pitch 2033 Series Connector Specification.

**【2.规格与料号 Spec and Part number】**

| 规格内容<br>Specification | 产品料号<br>Production No. | 产品图示<br>Picture of Product   |
|-----------------------|------------------------|--|
| 端子/Terminal           | 1806T-P08SX-01Q        |   |
| 胶壳/Housing            | 2033H-02-N0HFNC        |  |

**【3.材质与表面处理 Disposal of Material and surface】**

| 规格内容<br>Specification | 材质<br>Materials    | 表面处理<br>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】**

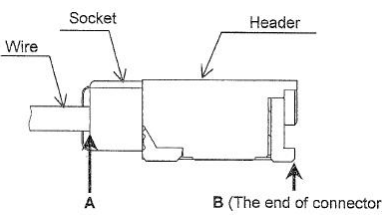
| 项目【Item】                            | 规格【Standard】  |         |
|-------------------------------------|---|---------|
| 额定电压 Rated Voltage (Max.)           | 250V  | [AC/DC] |
| 额定电流 Rated Current (Max.)           | 3.0 A   |         |
| 使用温度范围 Ambient temperature Range    | -40°C~+105°C  |         |
| 适用线径 Applicable wire insulation O.D | AWG#22~26(0.128~0.326mm <sup>2</sup> )<br>Insulation O.D:1.30mm(Max.) |         |

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

|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |

**【5.性能 PERFORMANCE】**

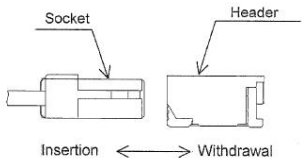
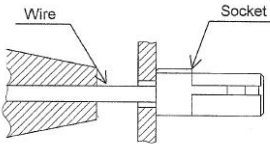
**5-1. 电气的性能 Electrical Performance.**

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

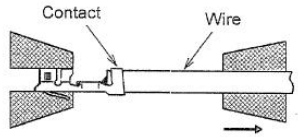


|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
|  | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification |              |            |
|  |              |            |
|  |              |            |
|  |              |            |

**5-2. 机械的性能 Mechanical Performance.**

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

|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
|  | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification |              |            |
|  |              |            |
|  |              |            |
|  |              |            |

| 项目<br>【Item】                          | 条件<br>【Test Condition】   | 规格<br>【Requirement】   |  |                               |                               |
|---------------------------------------|--|---|--|-------------------------------|-------------------------------|
| 5-2-5 端子压着强度<br>(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.<br>Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part). | AWG 线号<br>(平方毫米)  | #22<br>(0.35mm <sup>2</sup> )  | #24<br>(0.22mm <sup>2</sup> ) | #26<br>(0.13mm <sup>2</sup> ) |
|                                       |  | Spec.<br>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<br>【Item】                                    | 条件<br>【Test Condition】   | 规格<br>【Requirement】        |                     |
|---|--|----------------------------|---------------------|
| 5-3-1 重复插拔<br>Repeated Insertion/<br>Withdrawal | 以每分钟不超过 10 次的速率, 将公母插拔 30 次.<br>When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.   | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
| 5-3-2 温升测试<br>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)<br>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<br>Temperature rise   | 30°C Max.           |
| 5-3-3 振动测试<br>Vibration test                    | 振幅: 1.5mm P-P<br>时间: 20~200~20 Hz in 3minute<br>持续时间: 每轴向 3 小时<br>加速度: 44m/S <sup>2</sup><br>开放电压: 20mV 以下<br>开放电流: 10mA 以下<br>Amplitude: 1.5mm P-P<br>Sweep time: 20~200~20 Hz in 3 minute<br>Duration: 3 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A) | 外观<br>Appearance           | 无异状<br>No Damage    |
|   |  | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|   |  | 瞬断<br>Discontinuity        | 1 micro-second Max. |
|   |  | 电压降落<br>Voltage Drop       | 20mV/A Max          |
| 5-3-4 冲击测试<br>Shock test                        | 在 X.Y.Z 上 6 个方向上, 以 491m/s <sup>2</sup> (100g 的力量) 冲击下各 3 回.<br>491m/s <sup>2</sup> {100G}, 3 strokes in each X.Y.Z. axes. (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)   | 外观<br>Appearance           | 无异状<br>No Damage    |
|   |  | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|   |  | 瞬断<br>Discontinuity        | 1 micro-second Max. |



|  |              |            |
|--|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                    | Document No  | PS-2033-01 |
| <b>Subject [主题]:</b><br>2.00mm Pitch 2033 Series Connector Specification | Date Issued  | 2020/07/02 |
|  | Date Revised | 2020/07/02 |
|  | Version      | A          |

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

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

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

注：以上插拔次数为 30 次

Note: Insertion and Withdrawal for 30Cycles