



|                                                                                                                         |              |            |
|-------------------------------------------------------------------------------------------------------------------------|--------------|------------|
| <b>Product Specification</b> [产品规格书]:<br><br><b>Subject</b> [主题]:<br>3.00mm Pitch 3025-E Series Connector Specification | Document No  | PS-3025-16 |
|                                                                                                                         | Date Issued  | 2017/12/12 |
|                                                                                                                         | Date Revised | 2020/07/12 |
|                                                                                                                         | Version      | B          |

This specification is referred to the 3.00mm 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】
  - 5-1. 电气的性能【Electrical Performance.】
  - 5-2. 机械的性能【Mechanical Performance】
  - 5-3. 环境性能及其它【Environmental Performance and Others】
6. 综合插入力及拔出力【Insertion/Withdrawal Force】



|                                                                            |              |            |
|----------------------------------------------------------------------------|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                      | Document No  | PS-3025-16 |
| <b>Subject [主题]:</b><br>3.00mm Pitch 3025-E Series Connector Specification | Date Issued  | 2017/12/12 |
|                                                                            | Date Revised | 2020/07/12 |
|                                                                            | Version      | B          |

#### 【1.适用范围 Scope】

此种规格包括 3.00mm Pitch 3025-E Series 连接器规格说明.

This Specification Covers the 3.00mm Pitch 3025-E 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. |
|-----------------------|------------------------|
| 端子/Terminal           | 3025TF-PSN             |
| 胶壳/Housing            | 3025HM-XXE-N0HF        |
| 针座/Wafer              | 3025WV-XXE-LPSW        |

#### 【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 | Tin Plated: Over 100μ" .Nickel: Over 50μ" .    |
| 胶壳/Housing            | PA66               | UL94V-0                                        |
| 针座/Wafer              | Insulation<br>LCP  | UL94V-0                                        |
|                       | PIN<br>黄铜/Brass    | Over Matte Tin 100μ" Plated ; Over 50μ" 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.)           | 250V                                     | [AC/DC] |
| 额定电流 Rated Current (Max.)           | 5A                                       |         |
| 使用温度范围 Ambient temperature Range    | -25℃~+85℃                                |         |
| 适用线径 Applicable wire insulation O.D | AWG 20#~24# Insulation O.D. 1.85mm(Max.) |         |

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



|                                                                            |              |            |
|----------------------------------------------------------------------------|--------------|------------|
| <b>Product Specification [产品规格书]:</b>                                      | Document No  | PS-3025-16 |
| <b>Subject [主题]:</b><br>3.00mm Pitch 3025-E Series Connector Specification | Date Issued  | 2017/12/12 |
|                                                                            | Date Revised | 2020/07/12 |
|                                                                            | Version      | B          |

## 【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 Resistance                          | 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).                                                        | Initial:<br>10 milliohms Max.<br>After Test:<br>20 milliohms Max. |
| 5-1-2<br>绝缘阻抗<br>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.<br>Mate connectors, apply 500V DC between adjacent terminal or ground.<br>(Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)              | 1000 Megohms Min.                                                 |
| 5-1-3<br>耐电压<br>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 分锺,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) | 不出现中断等情况<br>No Breakdown and Flashover                            |
| 5-1-4<br>铆线后端子接触<br>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.<br>Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.                                                              | 5 milliohms Max.                                                  |



|                                       |              |            |
|---------------------------------------|--------------|------------|
| <b>Product Specification</b> [产品规格书]: | Document No  | PS-3025-16 |
|                                       | Date Issued  | 2017/12/12 |
|                                       | Date Revised | 2020/07/12 |
|                                       | Version      | B          |

**Subject** [主题]:

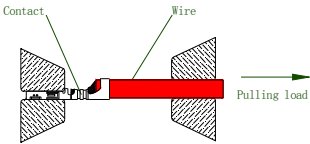
3.00mm Pitch 3025-E Series Connector Specification

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 & Retention Force        | 以每分 25.4±3mm 的速率插入和拔出。<br>Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.                                                       | 参照第 6 项<br>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。<br>Apply axial pull out force at the speed rate of 25.4±3mm/minute on the terminal assembled in the housing. | 24.5N {2.5kgf} 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。<br>Insert the crimped terminal into the housing.                                                                            | 14.7N {1.5kgf} 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。<br>Apply axial push force at the speed rate of 25.4±3mm/minute.                                            | 9.8N {1.0kgf} min.              |



|                                                    |              |            |
|----------------------------------------------------|--------------|------------|
| <b>Product Specification</b> [产品规格书]:              | Document No  | PS-3025-16 |
|                                                    | Date Issued  | 2017/12/12 |
|                                                    | Date Revised | 2020/07/12 |
|                                                    | Version      | B          |
| <b>Subject</b> [主题]:                               |              |            |
| 3.00mm Pitch 3025-E 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>Tensile strength<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.                                                                       | AWG#                                                                                 | #20 | #22 | #24 |
|               |                                                     | Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part). | Spec.                                                                                |     |     |     |
|               |                                                     |                                                                                                   | .kgf.                                                                                | 6.0 | 4.0 | 2.0 |
|               |                                                     |                                                                                                   | Min.                                                                                 |     |     |     |
|               |                                                     |                  | 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                  | 公母对插后,在通过额定电流下,所测定的温度.<br>Carrying rated current load. (UL 1977)                                                                                                                                                                 | 温升测试<br>Temperature rise   | 30°C Max.           |
| 5-3-3         | 耐振动性<br>Vibration                         | 振幅: 1.5mm P-P<br>时间: 10~55~10 HZ in 1 minute<br>持续时间: 每轴向 2 小时<br>Amplitude: 1.5mm P-P<br>Sweep time: 10~55~10 HZ in 1 minute<br>Duration: 2 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. |
| 5-3-4         | 耐冲击性<br>Shock                             | 在 X.Y.Z 上 6 个方向上,以 490m/s <sup>2</sup> (50g 的力量)<br>冲击下各 3 回.490m/s <sup>2</sup> {50G}, 3 strokes in each X.Y.Z. axes.<br>(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-3025-16 |
| <b>Subject [主题]:</b><br>3.00mm Pitch 3025-E Series Connector Specification | Date Issued  | 2017/12/12 |
|                                                                            | Date Revised | 2020/07/12 |
|                                                                            | Version      | B          |

| 项 目<br>【Item】 |                             | 条 件<br>【Test Condition】                                                                                                                                                                       | 规 格<br>【Requirement】          |                                                                    |
|---------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------|
| 5-3-5         | 耐热性<br>Heat Resistance      | 85±2℃, 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<br>Max.                                               |
| 5-3-6         | 耐寒性<br>Cold Resistance      | -25±5℃, 96 hours.<br>(Based upon EIA-364-105)                                                                                                                                                 | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|               |                             |                                                                                                                                                                                               | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.                                               |
| 5-3-7         | 耐湿性<br>Humidity             | 温度: 40±2℃<br>湿度: 90~95%(RH)<br>持续时间: 96 hours<br>Temperature: 40±2℃<br>Relative Humidity: 90~95%<br>Duration: 96 hours<br>(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)             | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|               |                             |                                                                                                                                                                                               | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.                                               |
|               |                             |                                                                                                                                                                                               | 耐电压<br>Dielectric Strength    | Must meet<br>5-1-3                                                 |
|               |                             |                                                                                                                                                                                               | 绝缘阻抗<br>Insulation Resistance | 500 Megohms<br>Min.                                                |
| 5-3-8         | 温度变化<br>Temperature Cycling | 从-25℃持续 30 分钟升至+85℃持续 30 分钟, 循环 5 次.<br>5 cycles of: a) -25℃ 30 minutes.<br>b) +85℃ 30 minutes.<br>(Based upon EIA-364-32B)                                                                   | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|               |                             |                                                                                                                                                                                               | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.                                               |
| 5-3-9         | 盐水喷雾<br>Salt Spray          | 在温度 35±2℃, 盐水浓度 5±1% 下, 盐水喷雾 24±1 小时.<br>24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃.<br>(Based upon EIA-364-26B/MIL-STD-202 Method 101D Cond.B).<br>注: 此项测试只针对先冲后镀端子 | 外观<br>Appearance              | 无异状<br>No Damage                                                   |
|               |                             |                                                                                                                                                                                               | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.                                               |
| 5-3-10        | 焊锡附着性<br>Solder-ability     | 焊接时间: 3~5 秒.<br>焊接温度: 245±5℃.<br>Soldering Time: 3~5second.<br>Solder Temperature: 245±5℃.<br>(Based upon EIA-364-52)                                                                         | Solder Wetting                | 浸渍面积需 95%以上<br>95% of immersed area must show no voids, pin holes. |



|                                                                            |              |            |
|----------------------------------------------------------------------------|--------------|------------|
| <b>Product Specification</b> [产品规格书]:                                      | Document No  | PS-3025-16 |
|                                                                            | Date Issued  | 2017/12/12 |
|                                                                            | Date Revised | 2020/07/12 |
|                                                                            | Version      | B          |
| <b>Subject</b> [主题]:<br>3.00mm Pitch 3025-E Series Connector Specification |              |            |

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

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

| 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.) |
|------------------------|---------------------------------------------|-----------------------------------------------------------|------------------------|---------------------------------------------|-----------------------------------------------------------|
| Single                 | 1.0                                         | 0.35                                                      | 7                      | 5.6                                         | 1.75                                                      |
| 2                      | 1.6                                         | 0.50                                                      | 8                      | 6.4                                         | 2.00                                                      |
| 3                      | 2.4                                         | 0.75                                                      | 9                      | 7.2                                         | 2.25                                                      |
| 4                      | 3.2                                         | 1.00                                                      | 10                     | 8.0                                         | 2.50                                                      |
| 5                      | 4.0                                         | 1.25                                                      | 11                     | 8.8                                         | 2.75                                                      |
| 6                      | 4.8                                         | 1.50                                                      | 12                     | 9.6                                         | 3.00                                                      |

注: 以上插拔次数为 30 次

Note: Insertion and Withdrawal for 30Cycles