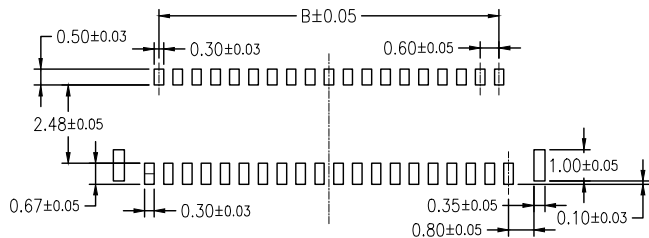
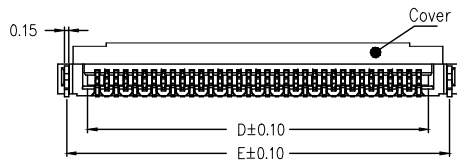
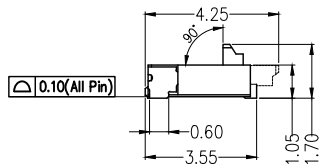
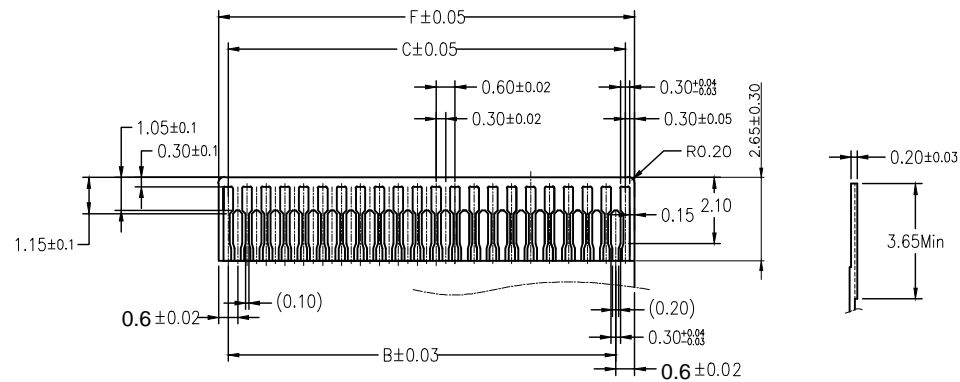


SEC A-A  
Scale 1:1



AFH39 - S \*\* F I A -1H

Remarks: 1H=Housing  
HF:Halogen free  
Packing: A=Tape & rell C=tube  
Gold flash I=1u"AU M=5U"AU  
Right Angle Double Contact Type  
NO.of contacts  
Series name  
FPC Series Pitch=0.3mm



Note:

- 1.Material
  - 1.1: Housing: LCP UL94-V0 Color:Black or White
  - 1.2: Actuator: LCP UL94-V0 Color:Black.
  - 1.3: Contact: Phosphor Bronze.
  - 1.4: LEG: Phosphor Bronze.
- 2.Plating
  - 2.1: Contact: See Part Number.
  - 2.2: LEG: Matte Tin Plating Over Nickel.
- 3.Rating:
  - 3.1: Operating Voltage: 30V AC/DC.
  - 3.2: Current Rating: 0.2A AC/DC.
  - 3.3: Operating Temperature: -55°C~+85°C.
- 4.Pater Number:

| No. of Contacts | Dimension |       |       |       |       |       |
|-----------------|-----------|-------|-------|-------|-------|-------|
|                 | A         | B     | C     | D     | E     | F     |
| 09              | 4.90      | 1.80  | 2.40  | 3.03  | 4.35  | 3.00  |
| 11              | 5.50      | 2.40  | 3.00  | 3.63  | 4.95  | 3.60  |
| 13              | 6.10      | 3.00  | 3.60  | 4.23  | 5.55  | 4.20  |
| 15              | 6.70      | 3.60  | 4.20  | 4.83  | 6.15  | 4.80  |
| 17              | 7.30      | 4.20  | 4.80  | 5.43  | 6.75  | 5.40  |
| 19              | 7.90      | 4.80  | 5.40  | 6.03  | 7.35  | 6.00  |
| 21              | 8.50      | 5.40  | 6.00  | 6.63  | 7.95  | 6.60  |
| 23              | 9.10      | 6.00  | 6.60  | 7.23  | 8.55  | 7.20  |
| 25              | 9.70      | 6.60  | 7.20  | 7.83  | 9.15  | 7.80  |
| 27              | 10.30     | 7.20  | 7.80  | 8.43  | 9.75  | 8.40  |
| 29              | 10.90     | 7.80  | 8.40  | 9.03  | 10.35 | 9.00  |
| 31              | 11.50     | 8.40  | 9.00  | 9.63  | 10.95 | 9.60  |
| 33              | 12.10     | 9.00  | 9.60  | 10.23 | 11.55 | 10.20 |
| 35              | 12.70     | 9.60  | 10.20 | 10.83 | 12.15 | 10.80 |
| 37              | 13.30     | 10.20 | 10.80 | 11.43 | 12.75 | 11.40 |
| 39              | 13.90     | 10.80 | 11.40 | 12.03 | 13.35 | 12.00 |
| 41              | 14.50     | 11.40 | 12.00 | 12.63 | 13.95 | 12.60 |
| 43              | 15.10     | 12.00 | 12.60 | 13.23 | 14.55 | 13.20 |
| 45              | 15.70     | 12.60 | 13.20 | 13.83 | 15.15 | 13.80 |
| 47              | 16.30     | 13.20 | 13.80 | 14.43 | 15.75 | 14.40 |
| 49              | 16.90     | 13.80 | 14.40 | 15.03 | 16.35 | 15.20 |
| 51              | 17.50     | 14.40 | 15.00 | 15.63 | 16.95 | 15.60 |

| DIM   | TOL    | HSF     | STD   |
|-------|--------|---------|-------|
|       |        | GP      | HF    |
| X.    | ± --   | X. °    | ± 2 ° |
| X.X   | ± 0.25 | X.X °   | ± 2 ° |
| X.XX  | ± 0.15 | X.XX °  | ± --  |
| X.XXX | ± 0.05 | X.XXX ° | ± --  |

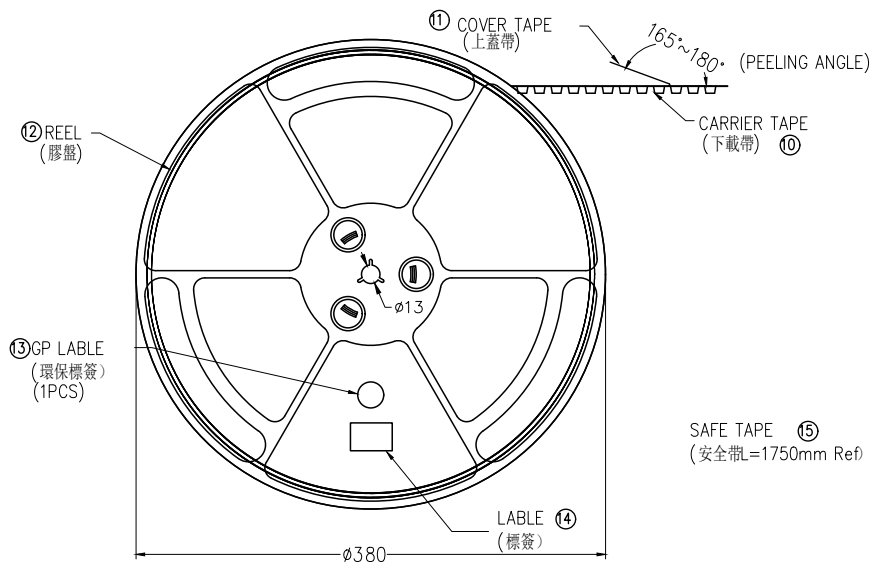
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SHENZHEN JUSHUO ELECTRONIC CO.,LTD

|  |                                   |       |      |      |
|--|-----------------------------------|-------|------|------|
|  | PART NO: AFH39-S**FIA-1H          |       |      |      |
|  | TITLE: 0.3Pitch 1.0H<br>前插后压双面接镀金 |       |      |      |
|  | DATE                              | SCALE | UNIT | PAGE |
|  | 20211128                          | 1:1   | mm   | 1/1  |

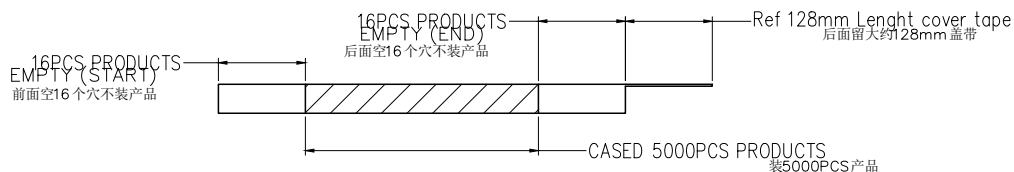
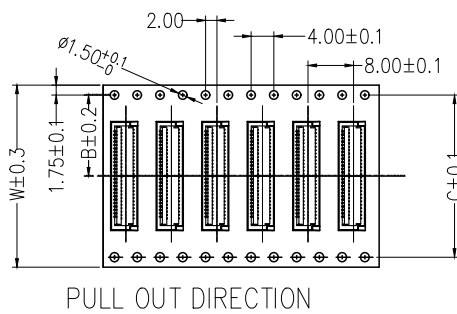
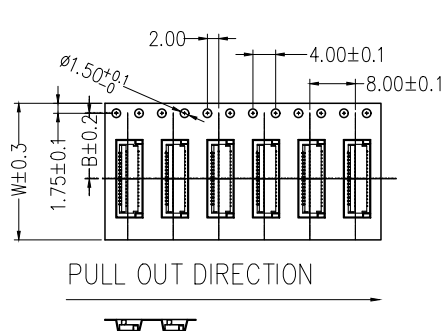
# EMBOSSED TAPE PACKING

FPC 0.3Pitch 1.0H ZIF R/A Double Contact Connector SMT Type

PULL OUT DIRECTION

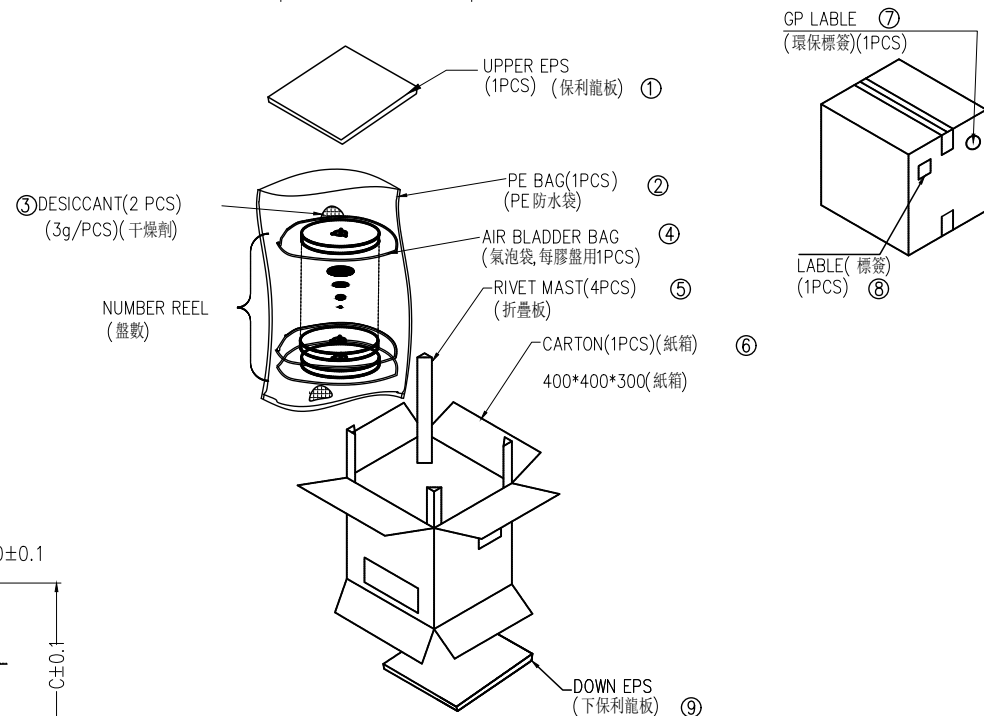


SCALE 1:4



NOTE:

- 1.10 Sprocket hole pitch cumulative tolerance  $\pm 0.20$ .
2. Carrier camber is within 1mm in 100mm.
3. Material: black conductive polystyrene alloy.
4. Material Thickness:  $0.3 \pm 0.05$ mm.
5. All dimensions meet EIA-481-B requirements.
6. 5000pcs Pef Reel.
7. For tape width(dim W)12,16 and 24mm pilot holes are provided on one sides. For tape width(dim W)32, 44mm pilot holes are provided on both sides.



| PIN NO.     | W  | B    | C    | PCS /REEL | REEL/CARTON | SUM(PCS) |
|-------------|----|------|------|-----------|-------------|----------|
| 09PIN~39PIN | 24 | 11.5 | -    | 5000      | 9           | 45000    |
| 41PIN~51PIN | 32 | 14.2 | 28.4 | 5000      | 7           | 35000    |

| HSF | STD |
|-----|-----|
| GP  | HF  |

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| DIM   | TOL             | DEC     | TOL             |
|-------|-----------------|---------|-----------------|
| X.    | $\pm \text{--}$ | X. °    | $\pm 2^\circ$   |
| X.X   | $\pm 0.25$      | X.X °   | $\pm 2^\circ$   |
| X.XX  | $\pm 0.15$      | X.XX °  | $\pm \text{--}$ |
| X.XXX | $\pm 0.05$      | X.XXX ° | $\pm \text{--}$ |

|               |                |                                |          |           |  |
|---------------|----------------|--------------------------------|----------|-----------|--|
|               | APPD: HEKE     | PART NO: AFH39-S**FIA-1H       |          |           |  |
|               | CHECK: JANY    | TITLE: 0.3Pitch 1.0H 前插后压双面接镀金 |          |           |  |
| DRAW: LIJINGE | DATE: 20211128 | SCALE: 1:1                     | UNIT: mm | PAGE: 1/1 |  |

|  |                              |       |                      |
|--|------------------------------|-------|----------------------|
| <b>深圳市钜硕电子有限公司</b><br>SHENZHEN JUSHUO ELECTRONIC CO.,LTD |                              | 文件編號： | <b>JSQA-FPC01086</b> |
|  |                              | 修訂日期： | <b>2021-11-28</b>    |
| <b>0.3P 1.0H</b><br><b>FPC/FFC</b>                       | <b>Product Specification</b> | 版 次：  | <b>Rev A</b>         |
|  |                              | 頁 次：  | <b>1/9</b>           |

# Product Specification

## 0.3P 1.0H FPC W/COVER BACK-LOCK SMT TYPE.

|                    |                   |                    |
|--------------------|-------------------|--------------------|
| <b>Approved By</b> | <b>Checked By</b> | <b>Prepared By</b> |
| JOHNSON            | RUANJUN           | LUKE               |

|  |                              |       |                      |
|--|------------------------------|-------|----------------------|
| <b>深圳市钜硕电子有限公司</b><br>SHENZHEN JUSHUO ELECTRONIC CO.,LTD |                              | 文件編號： | <b>JSQA-FPC01086</b> |
|  |                              | 修訂日期： | <b>2021-11-28</b>    |
| <b>0.3P 1.0H</b><br><b>FPC/FFC</b>                       | <b>Product Specification</b> | 版 次：  | <b>Rev A</b>         |
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## 1. SCOPE

This specification covers the performance, tests and quality requirements for the 0.3mm PITCH 1.0H FPC W/COVER BACK-LOCK SMT TYPE. When tests are performed on the subject product line, the procedures specified specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

## 2. REQUIREMENTS

### 2.1 PRODUCT DIMENSIONS and APPLICABLE FFC/FPC&PCBLAYOUT

Product shall be of the design, construction and physical dimensions specified on the applicable Product Drawing.

See attached Product Drawing.

### 2.2 MATERIALS

| ITEM                  | DISCRIPTION                               |
|-----------------------|---|
| Housing(主体)           | High-Temp Plastic, UL 94V-0, Halogen Free |
| Cover(盖子)             | High-Temp Plastic, UL 94V-0, Halogen Free |
| Terminal(端子)          | Copper Alloy                              |
| Peg(接地片)              | Copper Alloy                              |
| Terminal Plated(端子电镀) | See Product Drawing Plating Information   |
| Peg Plated(接地片电镀)     |   |

### 2.3 RATINGS

| ITEM                      | STANDARD  |
|---------------------------|---|
| Operating Voltage (Max.)  | 30V AC  |
| Current Rating (Max.)     | 0.3A DC   |
| Operating Temperature     | -55°C~+85°<br>(Including terminal temperature rise) |
| Operating Humidity range  | Relative humidity 90%Max.                           |
| Storage temperature range | -10°C ~ +50°C                                       |
| Storage Humidity range    | Relative humidity 90%Max.                           |

|   |                              |       |               |
|---|------------------------------|-------|---------------|
| <b>深圳市钜硕电子有限公司</b><br>SHENZHEN JUSHUO ELECTRONIC CO., LTD |                              | 文件編號： | JSQA-FPC01086 |
|   |                              | 修訂日期： | 2021-11-28    |
| <b>0.3P 1.0H</b><br><b>FPC/FFC</b>                        | <b>Product Specification</b> | 版 次：  | Rev A         |
|   |                              | 頁 次：  | 4/9           |

### 3. Test Requirements and Procedures Summary

| 测试项目(Test Item)   | 规格(Requirement)   | 测试方式/条件(Test Condition)   |
|---|---|---|
| 1 外观检查<br>Examination of Product  | 符合图面外观，无任何损坏异状<br>No physical damage.                     | 目视<br>Visual inspection.  |
| <b>电气特性(Electrical Requirement)</b>                                     |   |   |
| 2 接触阻抗<br>Contact Resistance  | [ 100 ] mΩ 以下.<br>[ 100 ] mΩ Max.                         | 将样品与适合之 FFC/FPC 连接，测试电压 20mV，限电流 10mA 下进行阻抗测试。<br>Mate applicable FPC and measure by dry circuit, 20mV Max, 10mA. (EIA-364-6B)  |
| 3 绝缘阻抗<br>Insulation Resistance   | [ 50 ] MΩ 以上.<br>[ 50 ] MΩ Min.                           | 将样品与适合之 FFC/FPC 连接，提供相邻端子间测试电压 500V DC 进行绝缘阻抗测试。<br>Mate applicable FPC and apply 500V DC between adjacent terminal and ground. (EIA-364-20B /MIL-STD-202 Method 302) |
| 4 耐电压<br>Dielectric withstanding Voltage                                | 目视外观无任何损坏异状<br>No Breakdown                               | 将样品与适合之 FFC/FPC 连接，提供相邻端子间测试电压 500V DC 进行绝缘阻抗测试。<br>Mate applicable FPC and apply 500V DC between adjacent terminal and ground. (EIA-364-21C /MIL-STD-202 Method 302) |
| <b>机械特性(Mechanical Requirement)</b>                                     |   |   |
| 5 FFC/FPC 保持力<br>FFC/FPC Retention Force                                | Pos. x 0.015Kgf {0.15N} 以上<br>Pos. x .015Kgf {0.15N} Min. | 将盖子盖上与 FFC/FPC 连接，以操作速度每分钟位移 25±3mm 进行 FFC/FPC 保持力测试。<br>Insert the Cover; pull the FFC/FPC at a rate of 25±3mm per minute (EIA-364-13B).                             |
| 6 盖子往返操作耐久测试<br>Repeated Actuator Insertion/ Withdrawal Durability Test | 接触阻抗<br>Contact Resistance                                | [ 100 ] mΩ 以下.<br>[ 100 ] mΩ Max.   |
| 7 耐振性<br>Vibration  | 外观<br>Appearance  | 目视外观无任何损坏异状<br>No Damage  |
|   | 接触阻抗<br>Contact Resistance                                | [ 100 ] mΩ 以下.<br>[ 100 ] mΩ Max.   |
|   | 瞬间断电<br>Discontinuity                                     | 1 μ sec 以下.<br>1 μ sec Max.   |
| 8 耐冲击性<br>Mechanical Shock  | 外观<br>Appearance  | 目视外观无任何损坏异状<br>No Damage  |
|   | 接触阻抗<br>Contact Resistance                                | [100] mΩ 以下.<br>[100] mΩ Max.   |
|   | 瞬间断电<br>Discontinuity                                     | 1 μ sec 以下.<br>1 μ sec Max.   |

| 测试项目(Test Item)                                      | 规格(Requirement)            | 测试方式/条件(Test Condition)           |
|--|----------------------------|-----------------------------------|
| <b>环境特性及其他性能(Environment Performance and Others)</b> |                            |                                   |
| 9 耐湿性<br>Humidity                                    | 接触阻抗<br>Contact Resistance | [ 100 ] mΩ 以下.<br>[ 100 ] mΩ Max. |
|  | 耐电压<br>Dielectric Strength | 需能符合耐电压测试<br>No Breakdown         |

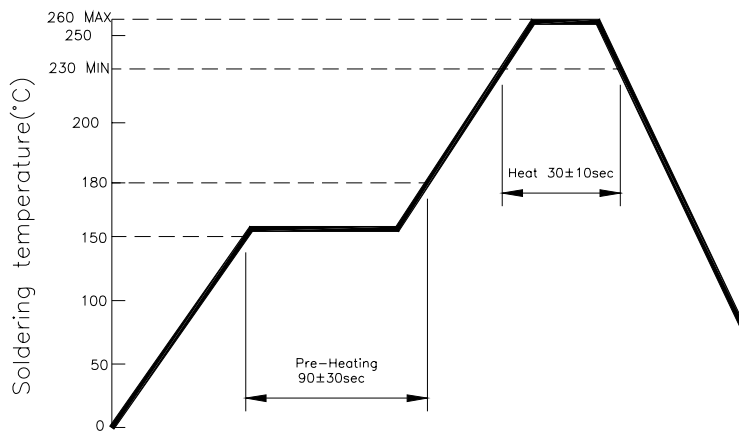
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| <b>深圳市钜硕电子有限公司</b><br>SHENZHEN JUSHUO ELECTRONIC CO.,LTD |                              | 文件編號： | <b>JSQA-FPC01086</b> |              |
|  |                              | 修訂日期： | <b>2021-11-28</b>    |              |
| <b>0.3P 1.0H</b><br><b>FPC/FFC</b>                       | <b>Product Specification</b> |       | 版 次：                 | <b>Rev A</b> |
|  |                              |       | 頁 次：                 | <b>5/9</b>   |

|    |                             |  |  |   |
|----|-----------------------------|--|--|---|
|    |                             | 绝缘阻抗<br>Insulation Resistance            | [ 50 ] MΩ 以上.<br>[ 50 ] MΩ Min.  | performed.<br>(EIA-364-31B /MIL-STD-202 Method 103)   |
| 10 | 冷热冲击<br>Temperature Cycling | 外观<br>Appearance                         | 目视外观无任何损坏异状<br>No Damage   | 将样品与适合之 FFC/FPC 连接, 承受 5 cycles 冷热冲击后,置放于室温下 1~2 小时. 1 cycle time 如下:a) -55±3°C,30 分钟 b) +85±3°C,30 分钟<br>Mate applicable FFC/FPC and subject to the following conditions for 5 cycles.<br>Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed 1 cycle<br>a) -55±3°C,30minutes b) +85±3°C,30minutes<br>(Transit time shall be within 3 minutes) (EIA-364-17B)  |
|    |                             | 接触阻抗<br>Contact Resistance               | [100] mΩ 以下.<br>[100] mΩ Max.  |   |
| 11 | 盐水喷雾<br>Salt Spray          | 外观<br>Appearance                         | 目视外观无任何损坏异状<br>No Damage   | 将样品与适合之 FFC/FPC 连接, 使用 5±1%浓度盐水, 测试温度 35±2°C, 测试时间 48±4 小时,后于室温下使用清水 冲洗后再干燥。<br>(JIS C0023 / MIL-STD-202 Method 101)<br>Mate applicable FPC and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified NaCl solution<br>Concentration: 5 ± 1%<br>Spray time:48 ± 4 hours<br>Ambient temperature: 35 ± 2°C<br>(EIA-364-26B, Condition B /MIL-STD-202 Method 101) |
|    |                             | 接触阻抗<br>Contact Resistance               | [ 100 ] mΩ 以下.<br>[ 100 ] mΩ Max.  |   |
| 12 | 焊锡性<br>Solder ability       | 润湿性<br>Solder Wetting                    | 润湿面积 95%以上, 并不得有漏焊 针孔现象<br>95% of immersed area must show no voids, pin holes. | 锡温 245±5°C, 将导电端子浸入锡炉液面至 Housing 距离锡面 0.1mm 位置,焊锡时间 3~5 秒。<br>Tip of solder tails and fitting nails into the molten solder (held at 245±5°C) up to 0.1mm from the bottom of the housing for 3~5 seconds.<br>(JESD22-B102D, Condition C)   |
| 13 | 温升<br>Temperature Rising    | 30°C Max. Under loaded rating<br>current |  | Contact series-wired, apply test current of loaded rating current to the circuit, and measure the temperature rising by probing on soldered areas of contacts, after the temperature becomes stabilized deduct ambient temperature from the measured value.   |

| 测试项目(Test Item)                                      | 规格(Requirement)                       | 测试方式/条件(Test Condition)                      |   |
|--|---------------------------------------|--|---|
| <b>环境特性及其他性能(Environment Performance and Others)</b> |                                       |  |   |
| 14   | 焊锡耐热性<br>Resistance to Soldering Heat | 外观<br>Appearance<br>目视外观无任何损坏异状<br>No Damage | 使用红外线回焊时请参考第 4 点<br>When reflowing...Refer to paragraph 4.  |
|  |                                       |  | <u>使用烙铁手焊时须符合下述焊锡条件</u><br>Soldering iron method<br>0.2mm from terminal tip and fitting nail tip.<br>Soldering time: 5 seconds Max.<br>Solder temperature : 370~400°C |

|   |                              |       |               |
|---|------------------------------|-------|---------------|
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|   |                              | 修訂日期： | 2021-11-28    |
| 0.3P 1.0H<br>FPC/FFC                              | <b>Product Specification</b> | 版 次：  | Rev A         |
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#### 4. Resistance to flow solder heat



**NOTE:** Please check the re-flow soldering condition by your own devices beforehand.  
 Because the condition changes by the soldering devices, p.c. boards, and so on.

|  |                              |       |               |
|--|------------------------------|-------|---------------|
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|  |                              | 修訂日期： | 2021-11-28    |
| <b>0.3P 1.0H</b><br><b>FPC/FFC</b>                       | <b>Product Specification</b> | 版 次：  | Rev A         |
|  |                              | 頁 次：  | 7/9           |

### 5. Qualification and Requalification Test

| Test or Examination             | Test Group    |     |     |     |     |     |     |     |     |
|---------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                                 | A             | B   | C   | D   | E   | F   | G   | H   | I   |
|                                 | Test Sequence |     |     |     |     |     |     |     |     |
| Examination of Product          | 1,9           | 1,4 | 1,5 | 1,5 | 1,5 | 1,5 | 1,3 | 1,3 | 1,3 |
| Contact Resistance              | 2,6           |     | 2,4 | 2,4 | 2,4 | 2,4 |     |     |     |
| Dielectric withstanding Voltage | 3,7           |     |     |     |     |     |     |     |     |
| Insulation Resistance           | 4,8           |     |     |     |     |     |     |     |     |
| FPC/FFC Retention Force         |               | 2   |     |     |     |     |     |     |     |
| Durability                      |               | 3   |     |     |     |     |     |     |     |
| Vibration                       |               |     | 3   |     |     |     |     |     |     |
| Mechanical Shock                |               |     |     | 3   |     |     |     |     |     |
| Humidity                        | 5             |     |     |     |     |     |     |     |     |
| Temperature Rising              |               |     |     |     |     |     |     |     | 2   |
| Temperature Cycling             |               |     |     |     | 3   |     |     |     |     |
| Salt Spray                      |               |     |     |     |     | 3   |     |     |     |
| Solder ability                  |               |     |     |     |     |     | 2   |     |     |
| Resistance to Soldering Heat    |               |     |     |     |     |     |     | 2   |     |

### 6. Packing Specification

#### 6.1 Tape and Reel Dimensions:

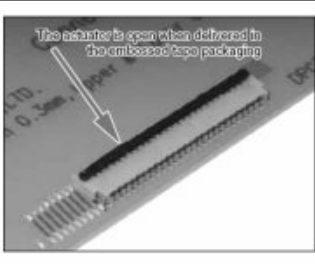
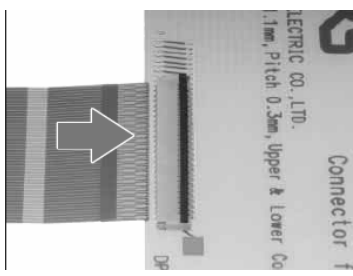
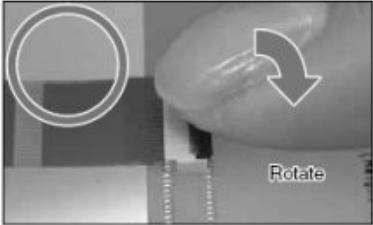


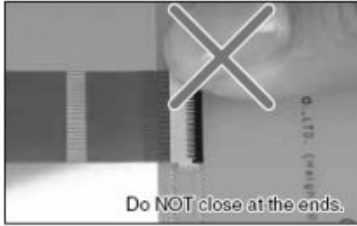
See attached Packing drawings.

#### 6.2 Packing Specification

See attached Packing drawings.

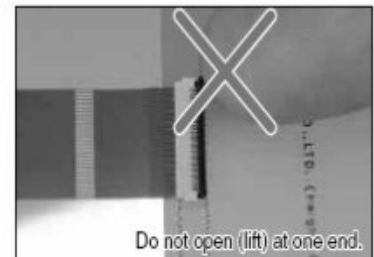
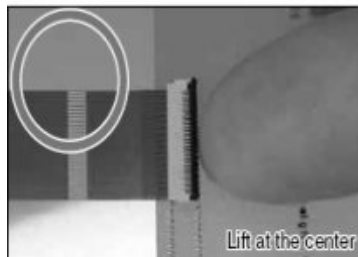
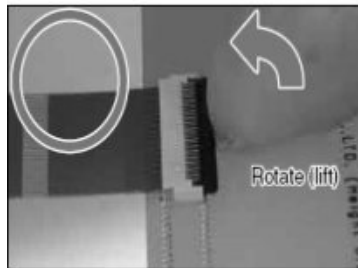


## 7. Instruction Upon Usage(操作说明)

|   |   |   |
|---|---|---|
| <p><b>1. As delivered</b><br/>Delivered with the actuator open. There is no need to operate the actuator prior to the insertion of the FPC.</p> |    |   |
| <p><b>2. FPC insertion</b><br/>Align the FPC perpendicular with the connector and insert it firmly all the way.</p>                             |   |   |
| <p><b>3. Locking</b><br/>After FPC/FFC insertion, rotate the actuator down to a full stop, pushing it at the center.</p>                        |  |  |
|   |  |  |

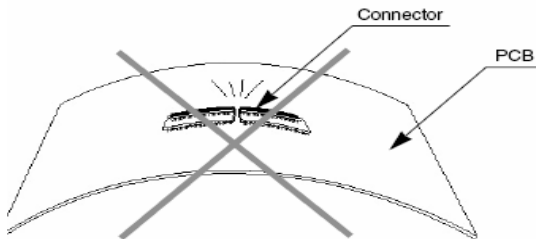
**4. FPC removal(Lock release)**

Carefully rotate the actuator up to 90° ,lifting it at the center.



**5. Warning!!**

The roughness of PCB board must be in 0.1mm max.



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