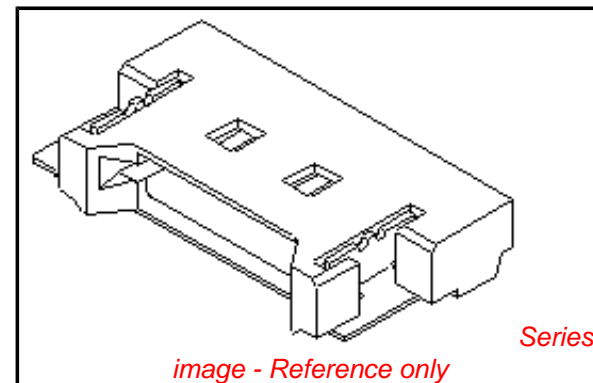


**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0537801270](#)  
**Status:** **Active**  
**Overview:** [panelmate 125mm 049 pitch ultra lowprofile](#)  
**Description:** 1.25mm (.049") Pitch PanelMate™ Header, Surface Mount, Right Angle, 1.90mm (.075") Height, Lead-free, 12 Circuits

**Documents:**

|  |  |
|--|--|
| <a href="#">3D Model</a>                                 | <a href="#">Product Specification PS-51146-012 (PDF)</a> |
| <a href="#">Drawing (PDF)</a>                            | <a href="#">RoHS Certificate of Compliance (PDF)</a>     |
| <a href="#">Product Specification PS-51146-010 (PDF)</a> |  |



**Agency Certification**

|     |         |
|-----|---------|
| CSA | LR19980 |
| UL  | E29179  |

**General**

|                |  |
|----------------|--|
| Product Family | PCB Headers  |
| Series         | <a href="#">53780</a>                                      |
| Application    | Wire-to-Board  |
| Overview       | <a href="#">panelmate 125mm 049 pitch ultra lowprofile</a> |
| Product Name   | PanelMate™   |

**Physical**

|                                |                       |
|--------------------------------|-----------------------|
| Breakaway                      | No                    |
| Circuits (Loaded)              | 12                    |
| Color - Resin                  | Natural               |
| Durability (mating cycles max) | 50                    |
| First Mate / Last Break        | No                    |
| Flammability                   | 94V-0                 |
| Glow-Wire Compliant            | No                    |
| Guide to Mating Part           | No                    |
| Keying to Mating Part          | None                  |
| Lock to Mating Part            | None                  |
| Material - Metal               | Phosphor Bronze       |
| Material - Plating Mating      | Gold                  |
| Material - Plating Termination | Tin                   |
| Number of Rows                 | 1                     |
| Orientation                    | Right Angle           |
| PCB Locator                    | No                    |
| PCB Retention                  | Yes                   |
| Packaging Type                 | Embossed Tape on Reel |
| Pitch - Mating Interface (in)  | 0.049 In              |
| Pitch - Mating Interface (mm)  | 1.25 mm               |
| Polarized to PCB               | No                    |
| Shrouded                       | Fully                 |
| Stackable                      | No                    |
| Temperature Range - Operating  | -40°C to +85°C        |
| Termination Interface: Style   | Surface Mount         |

**Electrical**

|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 1A   |
| Voltage - Maximum             | 125V |

**Material Info**

**Reference - Drawing Numbers**

|                         |              |
|-------------------------|--------------|
| Packaging Specification | SPK-53780-ET |
|-------------------------|--------------|

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**  
 Not Reviewed

**China RoHS**



**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[53780Series](#)

**Mates With**

[51146 PanelMate™ Wire-to-Board Receptacle Housing](#)

Product Specification

PS-51146-010, PS-51146-012, RPS-51146-020,  
RPS-51146-022, RPS-51146-023, RPS-51146-025,  
RPS-51146-026, RPS-51146-027, RPS-51146-028,  
RPS-51146-029  
SD-53780-003, SD-53780-004

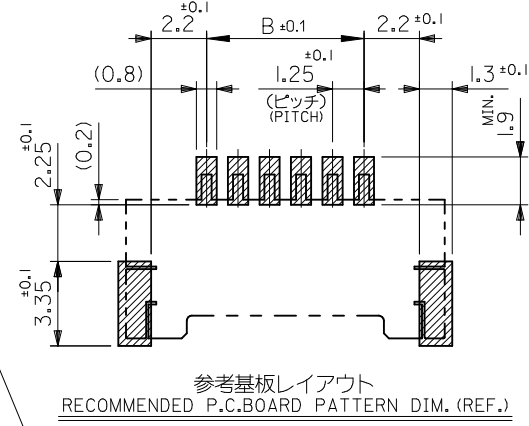
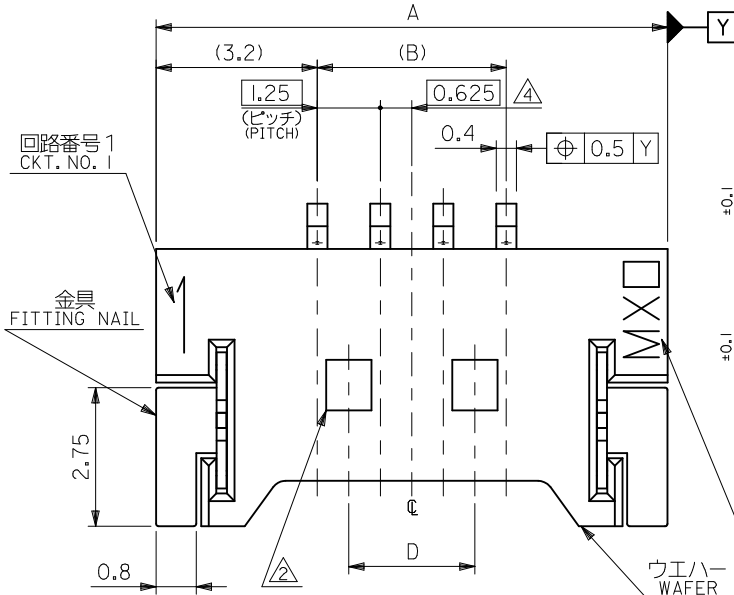
Sales Drawing

This document was generated on 05/26/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

注記 NOTES

1. 嵌合相手：51146 シリーズ  
MATES WITH : 51146 SERIES
2. ロック窓は2、3極品は1箇所、4極品以上は2箇所とする。  
LOCKING WINDOW : ONE PLACE FOR 2 AND 3 CIRCUIT PRODUCTS  
AND TWO PLACES FOR MORE THAN 3 CIRCUIT PRODUCTS.
3. 基準面 [V] からのソルダーテールと金具の半田付け面のズレ量は、  
上方向に 0.05MAX.、下方向 0.15MAX. とし、20 極以下の相互の  
バラツキ量は 0.1MAX. とする。  
MISALIGNMENT OF SOLDER TAIL AND FITTING NAIL FROM [V]  
: UPPER DIRECTION 0.05MAX.  
: LOWER DIRECTION 0.15MAX.  
: OFFSET BETWEEN UPPER AND LOWER 0.1MAX. (UNDER 20 CKTS.)
4. 偶数極の製品に適用。  
APPLY EVEN CIRCUIT PRODUCTS.
5. 材質 MATERIAL  
ウエハ：PPS, UL94V-0  
ピン：リン青銅 PIN: PHOSPHOR BRONZE  
コンタクト部：金メッキ 0.2 マイクロメートル以上  
CONTACT AREA : GOLD 0.2 MICROMETER MINIMUM  
テール部：錫メッキ 3.0 マイクロメートル以上  
TAIL AREA : TIN 3.0 MICROMETER MINIMUM  
下地メッキ：ニッケルメッキ 1.0 マイクロメートル以上  
UNDER PLATING : NICKEL 1.0 MICROMETER MINIMUM  
金具：リン青銅 FITTING NAIL : PHOSPHOR BRONZE  
錫メッキ 3.0 マイクロメートル以上  
TIN 3.0 MICROMETER MINIMUM  
下地メッキ：ニッケルメッキ 1.0 マイクロメートル以上  
UNDER PLATING : NICKEL 1.0 MICROMETER MINIMUM
6. 本製品は 53780-\*\*-\*\*10/-\*\*-\*\*18 の鉛フリー品である。  
THIS PRODUCT IS LEAD FREE OF 53780-\*\*-\*\*10/-\*\*-\*\*18.
7. ELV 及び RoHS 適合品  
ELV & RoHS COMPLIANT.



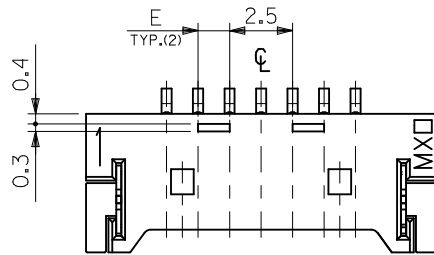
参考基板レイアウト  
RECOMMENDED P.C.BOARD PATTERN DIM. (REF.)

|       |       |       |       |       |            |    |
|-------|-------|-------|-------|-------|------------|----|
| 16.25 | 22.5  | 38.77 | 36.25 | 42.65 | 53780-3070 | 30 |
| 8.75  | 22.5  | 26.27 | 23.75 | 30.15 | -2070      | 20 |
| 7.5   | 20    | 23.77 | 21.25 | 27.65 | -1870      | 18 |
| 6.25  | 16.25 | 20.02 | 17.5  | 23.9  | -1570      | 15 |
| 5     | 15    | 18.77 | 16.25 | 22.65 | -1470      | 14 |
| 3.75  | 12.5  | 16.27 | 13.75 | 20.15 | -1270      | 12 |
| 2.5   | 10    | 13.77 | 11.25 | 17.65 | -1070      | 10 |
| 2.5   | 8.75  | 12.52 | 10    | 16.4  | -0970      | 9  |
| 1.25  | 7.5   | 11.27 | 8.75  | 15.15 | -0870      | 8  |
| 1.25  | 6.25  | 10.02 | 7.5   | 13.9  | -0770      | 7  |
| --    | 5     | 8.77  | 6.25  | 12.65 | -0670      | 6  |
| --    | 3.75  | 7.52  | 5     | 11.4  | -0570      | 5  |
| --    | 2.5   | 6.27  | 3.75  | 10.15 | -0470      | 4  |
| --    | --    | 5.02  | 2.5   | 8.9   | -0370      | 3  |
| --    | --    | 3.77  | 1.25  | 7.65  | 53780-0270 | 2  |

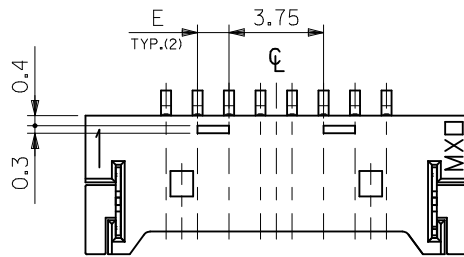
EMBOSSED PACKAGE CKT.  
オーダー番号 ORDER No. 極数

CONNECTOR SERIES NO. 53780-\*\*-\*\*19

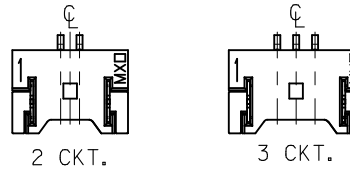
|   |                                       |  |                            |  |  |                              |
|---|---------------------------------------|--|----------------------------|--|--|------------------------------|
| REVISED<br>EC NO. J2010-1927<br>DRWN:SKUROSE 2010/03/25<br>CHKD:KASAKAWA 2010/03/26<br>APPR:NUKITA 2010/03/29 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY | SCALE<br>---   | DESIGN UNITS<br>METRIC                       | THIRD ANGLE PROJECTION       |
|   | 10 UNDER                              | ± 0.2  | DRAWN BY<br>T. UENO        | DATE<br>'04/04/15  | TITLE<br>1.25 W/B CONN WAFER<br>ASSY FOR SMT |                              |
|   | 10 OVER 30 UNDER                      | ± 0.25   | CHECKED BY<br>M. SASAO     | DATE<br>'04/04/15  | MOLEX INCORPORATED                           |                              |
|   | 30 OVER                               | ± 0.3  | APPROVED BY<br>M. SASAO    | DATE<br>'04/04/15  | MATERIAL NO.<br>SEE CHART                    | DOCUMENT NO.<br>SD-53780-003 |
|   | ANGULAR ± 3 °                         | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS | SIZE<br>A3                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                              |



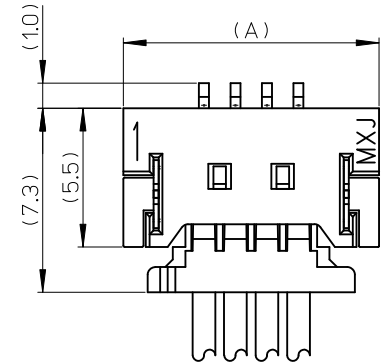
7~19極の奇数極に適用  
 APPLY FOR ODD CIRCUITS OF 7~19



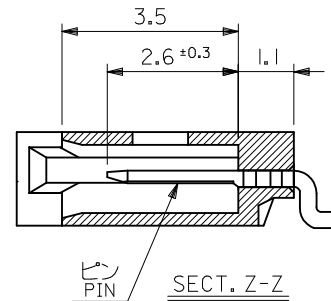
8~30 極の偶数極に適用  
 APPLY FOR EVEN CIRCUITS OF 8~30



ロック形状図  
 LOCK CONFIGURATION



嵌合図 (SCALE 5:1)  
 MATED CONNECTORS (SCALE 5:1)



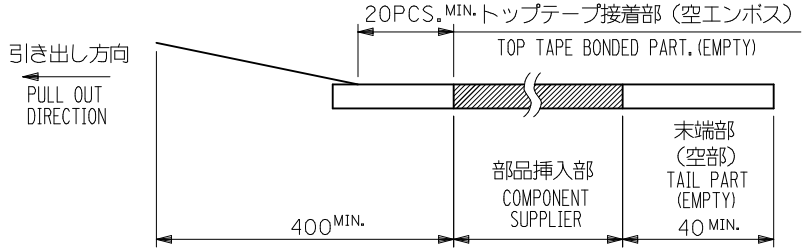
SECT. Z-Z

CONNECTOR SERIES NO. 53780-\*\*19

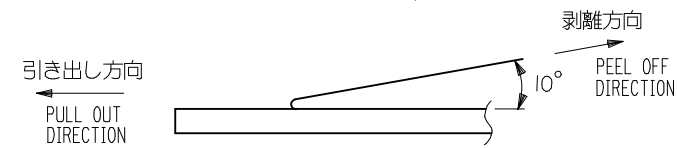
|  |                                       |  |   |                   |   |                              |
|--|---------------------------------------|--|---|-------------------|---|------------------------------|
| REVISED<br>EC NO.: J2010-1927<br>DRWN:SKUROSE 2010/03/25<br>CHKD:KASAKAWA 2010/03/26<br>APPR:NUKITA 2010/03/29 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY  | SCALE<br>---      | DESIGN UNITS<br>METRIC                    | THIRD ANGLE PROJECTION       |
|  | 10 UNDER                              | ±0.2   | DRAWN BY<br>T. UENO   | DATE<br>'04/04/15 | TITLE<br>1.25 W/B CONN WAFER ASSY FOR SMT |                              |
|  | 10 OVER 30 UNDER                      | ±0.25  | CHECKED BY<br>M. SASAO  | DATE<br>'04/04/15 | MOLEX INCORPORATED                        |                              |
|  | 30 OVER                               | ±0.3   | APPROVED BY<br>M. SASAO   | DATE<br>'04/04/15 | MATERIAL NO.<br>SEE CHART                 | DOCUMENT NO.<br>SD-53780-003 |
| REV  | DESCRIPTION                           | ANGULAR ±3 °   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                   |   |                              |
|  |                                       | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   |                   |   |                              |

NOTES

- 1. 梱包数量：1500個/リール  
NUMBER OF CONNECTORS : 1500PCS/REEL
- 2. リードテープ長さ LEAD TAPE LENGTH



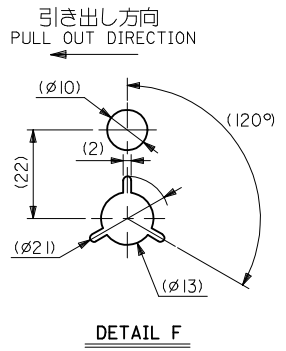
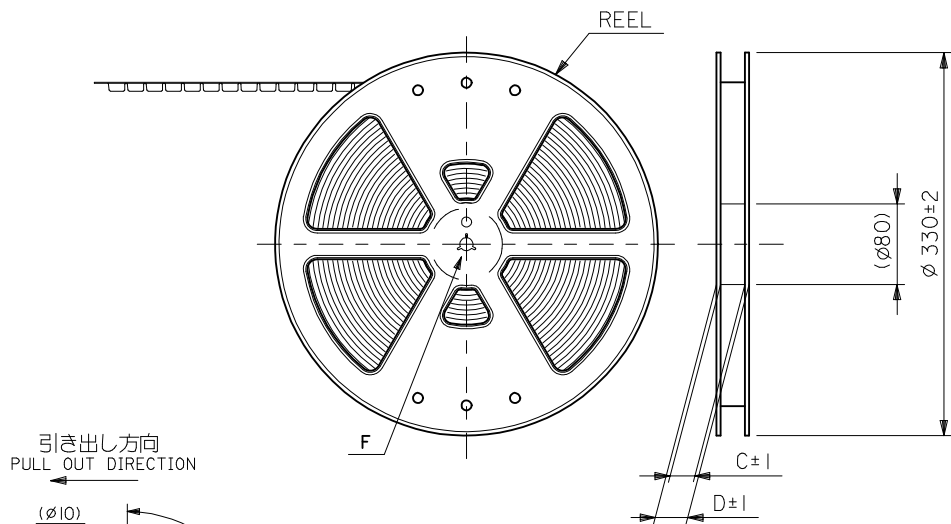
- 3. トップテープの剥離強度：0.1N ~ 1.3N (10gf ~ 130gf)  
(剥離方向は下図参照)  
尚、本規格値は出荷時に適用。(但し、輸送時に剥離が発生しないこと。)  
PEELING OFF FORCE OF TOP TAPE : 0.1N ~ 1.3N (10gf ~ 130gf)  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIG.)  
THIS REQUIREMENT SHOULD BE APPLIED AT SHIPMENT.  
PEEL OFF SHOULD NOT BE ALLOWED, DURING TRANSPORTATION.



- 4. 材料 (MATERIAL)  
キャリアテープ (CARRIER TAPE) : ポリプロピレン (POLYPROPYLENE)  
トップテープ (TOP TAPE) : PET, PE, PEF  
リール (REEL) : ポリスチレン (PS) <リサイクル材を含む>  
POLYSTYRENE (PS) <RECYCLE MATERIAL CONTAINED>

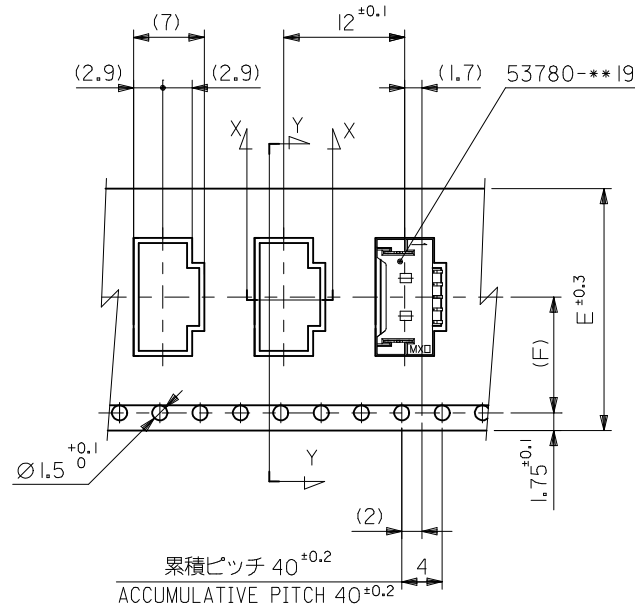
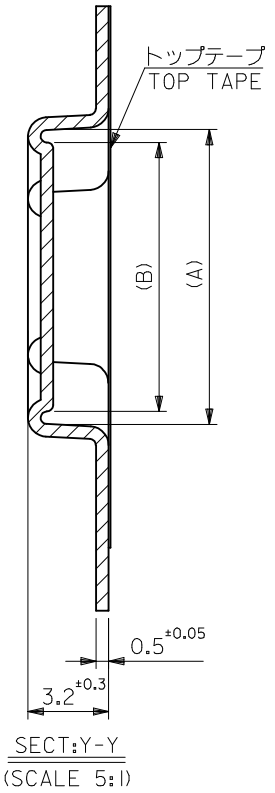
- 5. 本製品は 53780-\*\*-90/-\*\*-80 の鉛フリー品である。  
THIS PRODUCT IS LEAD FREE OF 53780-\*\*-90/-\*\*-80.

- 6. ELV及びRoHS適合品  
ELV & RoHS COMPLIANT

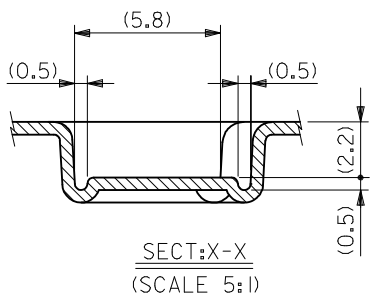


MODEL NO. 53780-\*\*-70

|   |  |   |                            |                   |  |                              |                        |
|---|--|---|----------------------------|-------------------|--|------------------------------|------------------------|
| REVISED<br>EC NO: J2010-0021<br>DRWN: MTAKASAKI 2009/07/07<br>CHKD: HAYASHI 2009/07/08<br>APPR: NUKITA 2009/07/08 | GENERAL TOLERANCES (UNLESS SPECIFIED)                |   | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>---   | DESIGN UNITS<br>METRIC       | THIRD ANGLE PROJECTION |
|   | 10 UNDER   | ±0.2  | DRAWN BY<br>T. UENO        | DATE<br>'04/04/15 | TITLE<br>1.25 W/B WAFER ASSY<br>EMBOSSD TAPE PACKAGE |                              |                        |
|   | 10 OVER 30 UNDER                                     | ±0.25   | CHECKED BY<br>M. SASAO     | DATE<br>'04/04/15 | MOLEX INCORPORATED                                   |                              |                        |
|   | 30 OVER  | ±0.3  | APPROVED BY<br>M. SASAO    | DATE<br>'04/04/15 | MATERIAL NO.<br>SEE CHART                            | DOCUMENT NO.<br>SD-53780-004 | SHEET NO.<br>1 OF 3    |
| DESCRIPTION   | ANGULAR ±3 °   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                            |                   |  |                              |                        |
| REV   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   | SIZE<br>A3                 |                   |  |                              |                        |



引き出し方向  
PULL OUT DIRECTION



|           |                                     |      |      |       |       |              |            |
|-----------|-------------------------------------|------|------|-------|-------|--------------|------------|
| 11.5      | 24                                  | 29.4 | 25.4 | 11.75 | 16.7  | 53780-0970   | 9          |
|           |                                     |      |      | 10.5  | 15.45 | 53780-0870   | 8          |
|           |                                     |      |      | 9.25  | 14.2  | 53780-0770   | 7          |
|           |                                     |      |      | 8     | 12.95 | 53780-0670   | 6          |
|           |                                     |      |      | 6.75  | 11.7  | 53780-0570   | 5          |
| 7.5       | 16                                  | 21.4 | 17.4 | 4.25  | 9.2   | 53780-0370   | 3          |
|           |                                     |      |      | 3     | 7.95  | 53780-0270   | 2          |
| (F)       | E<br>キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | C    | (B)   | (A)   | MATERIAL NO. | 種数<br>CKT. |
| MODEL NO. |                                     |      |      |       |       | 53780-***70  |            |

|  |                                       |  |                            |                   |   |                        |  |                           |  |
|--|---------------------------------------|--|----------------------------|-------------------|---|------------------------|--|---------------------------|--|
| REVISED<br>EC NO: J2010-0021<br>DRWN: TAKASAKI 2009/07/07<br>CHKD: HAYASHI 2009/07/08<br>APPR: NUKITA 2009/07/08 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>---  | DESIGN UNITS<br>METRIC |  | THIRD ANGLE<br>PROJECTION |  |
|  | 10 UNDER                              | ±0.2   | DRAWN BY<br>T. UENO        | DATE<br>'04/04/15 | TITLE<br>1.25 W/B WAFER ASSY<br>EMBOSSED TAPE PACKAGE |                        |  |                           |  |
|  | 10 OVER 30 UNDER                      | ±0.25  | CHECKED BY<br>M. SASAO     | DATE<br>'04/04/15 | MOLEX INCORPORATED                                    |                        |  |                           |  |
|  | 30 OVER                               | ±0.3   | APPROVED BY<br>M. SASAO    | DATE<br>'04/04/15 | DOCUMENT NO.<br>SD-53780-004                          |                        |  |                           |  |
|  | ANGULAR ±3 °                          |  | MATERIAL NO.<br>SEE CHART  |                   | SHEET NO.<br>2 OF 3                                   |                        |  |                           |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS   |                                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                            |                   |   |                        |  |                           |  |

