

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

**Part Number:** [0525591552](#)  
**Status:** **Active**  
**Overview:**  
**Description:** 0.50mm (.020") Pitch FFC/FPC Connector, Vertical, SMT, ZIF, 15 Circuits, Lead-Free, Gold Contact Plating, High Barrier Packaging

**Agency Certification**

UL E29179

**General**

Product Family FFC/FPC Connectors  
 Series 52559  
 Overview ffc\_fpc\_smt  
 Product Name N/A

**Physical**

Circuits (Loaded) 15  
 Contact Position N/A  
 Durability (mating cycles max) 20  
 Entry Angle Vertical  
 Flammability 94V-0  
 Mated Height (in) 0.154 In  
 Mated Height (mm) 3.90 mm  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 1  
 Orientation Vertical  
 PCB Locator No  
 PCB Retention Yes  
 Packaging Type Embossed Tape on Reel  
 Pitch - Mating Interface (in) 0.020 In  
 Pitch - Mating Interface (mm) 0.50 mm  
 Polarized to PCB No  
 Stackable No  
 Temperature Range - Operating -20°C to +85°C  
 Termination Interface: Style Surface Mount  
 Wire/Cable Type FFC/FPC

**Electrical**

Current - Maximum per Contact 0.5A  
 Voltage - Maximum 50V AC (RMS)/DC

**Material Info**

**Reference - Drawing Numbers**

Application Specification AS-52559-001  
 Packaging Specification SPK-52559-001, SPK-52559-003  
 Product Specification PS-52559-013, RPS-52559-062, RPS-52559-064, RPS-52559-068, RPS-52559-070, RPS-52559-072  
 Sales Drawing SD-52559-048, SD-52559-049

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free Status**  
**Not Halogen-Free**

**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**  
[52559Series](#)

10

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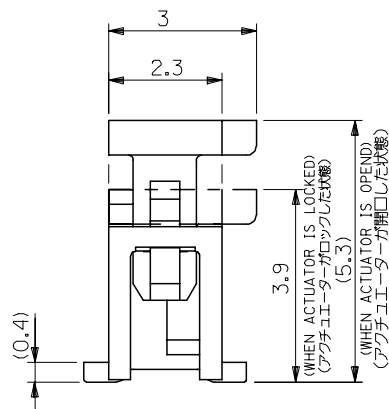
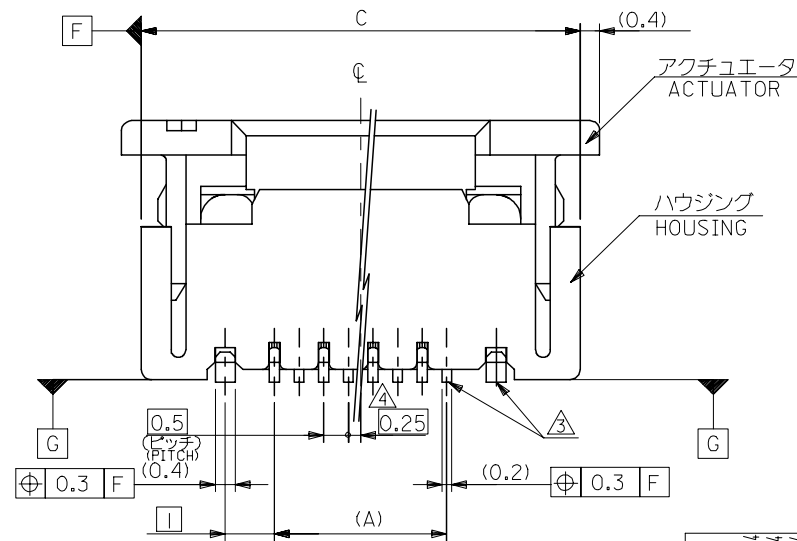
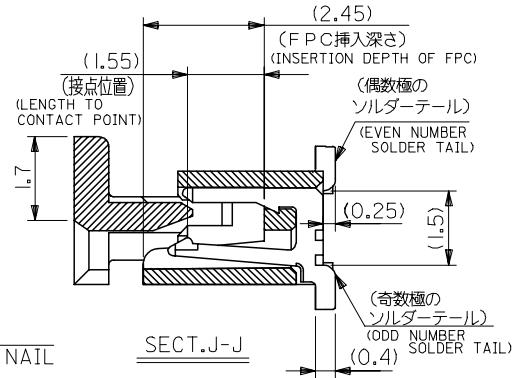
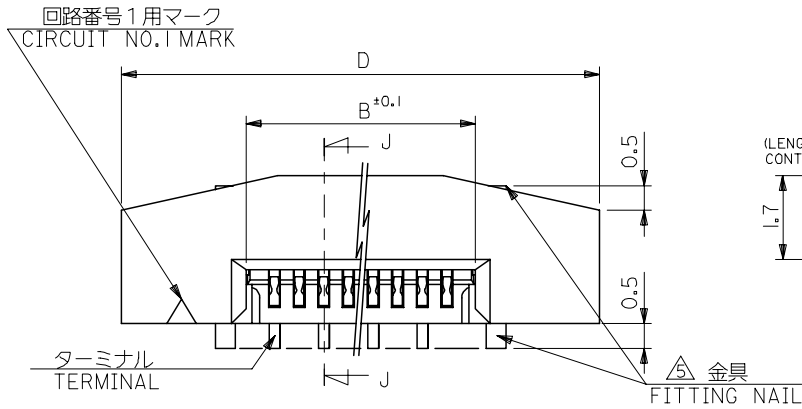
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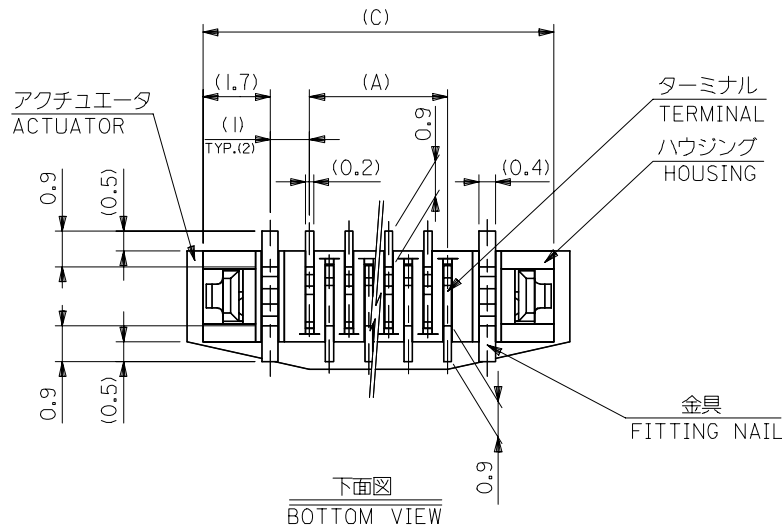


注記 NOTES

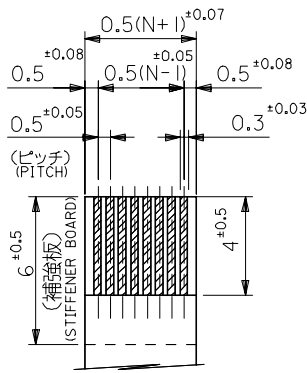
- 使用材料 : MATERIAL
  - ハウジング HOUSING : 46NYLON UL94V-0
  - アクチュエータ ACTUATOR : PPS UL94V-0
  - ターミナル TERMINAL : リン青銅 (t=0.2) PHOS-BRO
  - 接点部 金メッキ 0.1マイクロメートル以上 CONTACT GOLD 0.1 MICROMETER MINIMUM
  - 半田付け部 錫メッキ 1.0マイクロメートル以上 TAIL TIN 1.0 MICROMETER MINIMUM
  - ニッケル下地 1.0マイクロメートル以上 NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM
  - 金具 FITTING NAIL : リン青銅 (t=0.4) PHOS-BRO
  - 錫メッキ 1.0マイクロメートル以上 TIN 1.0 MICROMETER MINIMUM
  - ニッケル下地 1.0マイクロメートル以上 NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM
- エンボステープ梱包時は、アクチュエータがロックした状態とする。  
IN THE PACKAGE, ACTUATOR OF PART NO. 52559-\*\*79 SHOULD BE LOCKED.  
△ソルダータール半田付け面のスレ量、及び金具半田付け面のスレ量は、基準面 G に対し上方向 0.05 MAX. , 下方向 0.15 MAX. とする。  
MISALIGNMENT OF SOLDER TAILS AND FITTING NAILS FROM G UPPER DIRECTION: 0.05 MAX. , LOWER DIRECTION: 0.15 MAX.
- 偶数極に適用。  
APPLY FOR EVEN CIRCUIT.
- パターンはくり止め用金具。  
FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.
- RO. 3は、FPCの導体部にかからないこと。  
RO.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.

MODEL NO. 52559-\*\*79

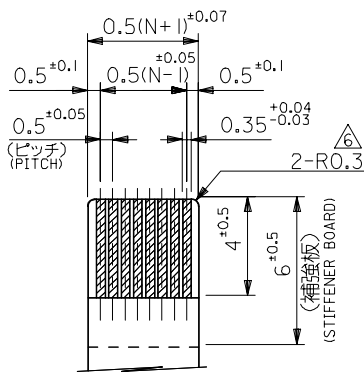
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|---|---------------------------------------|-----------|----------------------------|-------------------|---------------------------------|------------------------|------------------------|
| RELEASED<br>EC NO: J2005-0174<br>DRAWN: MNABE1 2004/07/14<br>CHKD: KTOJO 2004/07/14<br>APPR: NUKITA 2004/07/14<br>REV: 0              | 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>MNABE1         | DATE<br>'04/07/13 | TITLE<br>0.5 FPC CONN ASSY ZIF. |                        |                        |
|   | 10 OVER 30 UNDER                      | ±0.25     | CHECKED BY<br>KTOJO        | DATE<br>'04/07/13 | -LEAD FREE-                     |                        |                        |
|   | 30 OVER                               | ±0.3      | APPROVED BY<br>NUKITA      | DATE<br>'04/07/13 | molex MOLEX INCORPORATED        |                        |                        |
|   | ANGULAR                               | ±3 °      | MATERIAL NO.               | DOCUMENT NO.      | SHEET NO.                       |                        |                        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                                       | SEE CHART |                            | SD-52559-048      |                                 | 1 OF 2                 |                        |
| SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                       |           |                            |                   |                                 |                        |                        |



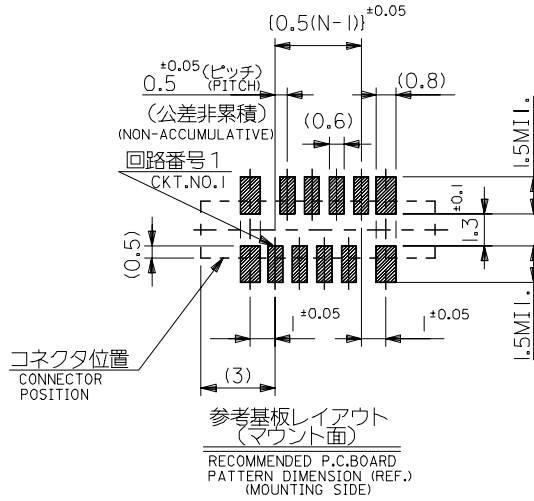
下面図  
BOTTOM VIEW



適合FPC推奨寸法  
APPLICABLE FPC  
RECOMMENDED DIMENSION.  
(仕上がり厚さ: 0.3<sup>+0.05</sup>)  
(THICKNESS: 0.3<sup>+0.05</sup>)



適合FPC推奨寸法  
APPLICABLE FPC  
RECOMMENDED DIMENSION.  
(仕上がり厚さ: 0.3<sup>+0.05</sup>)  
(THICKNESS: 0.3<sup>+0.05</sup>)



FPCについて：  
打抜き方向は導体側から補強板側を推奨致します。  
補強フィルム材質はポリイミドを推奨致します。  
接着剤は熱硬化接着剤を推奨致します。

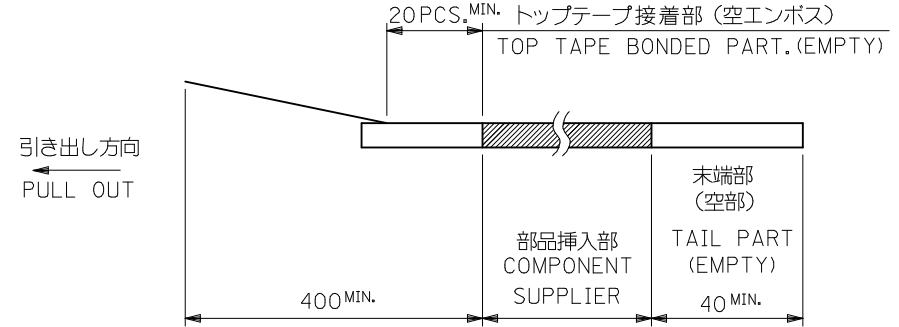
ABOUT FPC :  
RECOMMENDED PUNCHER DIRECTION : FROM CONDUCTOR SIDE TO STIFFENER BOARD SIDE.  
RECOMMENDED MATERIAL :  
STIFFENER FILM : POLYIMIDE  
BONDING AGENT : THERMOSETTING BONDING AGENT

|      |      |       |      |              |    |
|------|------|-------|------|--------------|----|
| 25.7 | 24.9 | 20.65 | 19.5 | 52559-4079   | 40 |
| 23.7 | 22.9 | 18.65 | 17.5 | -3679        | 36 |
| 22.2 | 21.4 | 17.15 | 16.0 | -3379        | 33 |
| 21.7 | 20.9 | 16.65 | 15.5 | -3279        | 32 |
| 21.2 | 20.4 | 16.15 | 15.0 | -3179        | 31 |
| 20.7 | 19.9 | 15.65 | 14.5 | -3079        | 30 |
| 20.2 | 19.4 | 15.15 | 14.0 | -2979        | 29 |
| 19.7 | 18.9 | 14.65 | 13.5 | -2879        | 28 |
| 19.2 | 18.4 | 14.15 | 13.0 | -2779        | 27 |
| 18.7 | 17.9 | 13.65 | 12.5 | -2679        | 26 |
| 18.2 | 17.4 | 13.15 | 12.0 | -2579        | 25 |
| 17.7 | 16.9 | 12.65 | 11.5 | -2479        | 24 |
| 17.2 | 16.4 | 12.15 | 11.0 | -2379        | 23 |
| 16.7 | 15.9 | 11.65 | 10.5 | -2279        | 22 |
| 16.2 | 15.4 | 11.15 | 10.0 | -2179        | 21 |
| 15.7 | 14.9 | 10.65 | 9.5  | -2079        | 20 |
| 15.2 | 14.4 | 10.15 | 9.0  | -1979        | 19 |
| 14.7 | 13.9 | 9.65  | 8.5  | -1879        | 18 |
| 14.2 | 13.4 | 9.15  | 8.0  | -1779        | 17 |
| 13.7 | 12.9 | 8.65  | 7.5  | -1679        | 16 |
| 13.2 | 12.4 | 8.15  | 7.0  | -1579        | 15 |
| 12.7 | 11.9 | 7.65  | 6.5  | -1479        | 14 |
| 12.2 | 11.4 | 7.15  | 6.0  | -1379        | 13 |
| 11.7 | 10.9 | 6.65  | 5.5  | -1279        | 12 |
| 11.2 | 10.4 | 6.15  | 5.0  | -1179        | 11 |
| 10.7 | 9.9  | 5.65  | 4.5  | -1079        | 10 |
| 10.2 | 9.4  | 5.15  | 4.0  | -0979        | 9  |
| 9.7  | 8.9  | 4.65  | 3.5  | -0879        | 8  |
| 8.7  | 7.9  | 3.65  | 2.5  | 52559-0679   | 6  |
| D    | C    | B     | (A)  | MATERIAL NO. | 極数 |

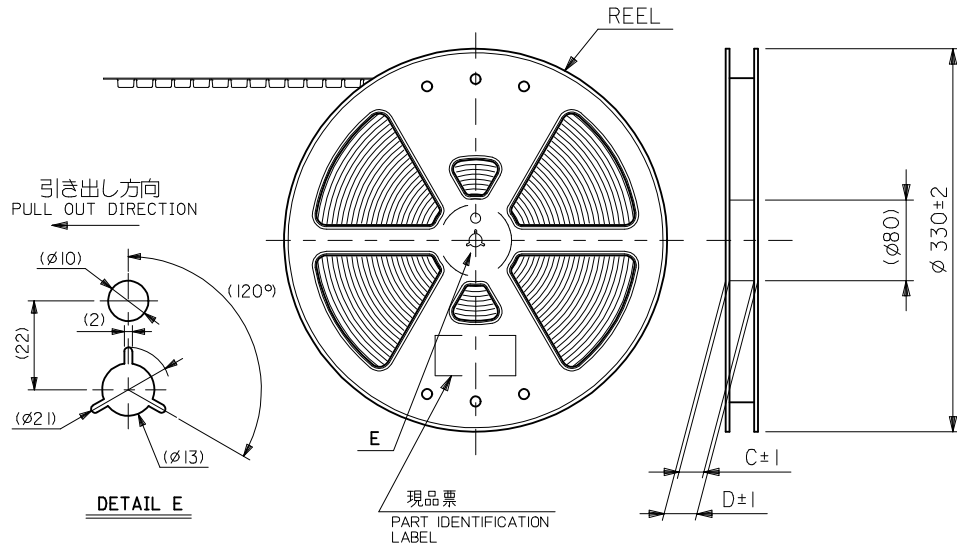
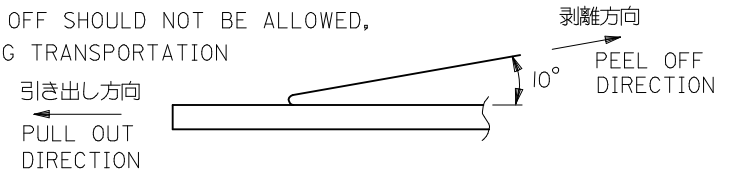
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|--|---------------------------------------|--|----------------------------|---------------------------|---------------------------------|-------------------------------------|------------|
| RELEASED<br>EC NO: J2005-0174<br>DRAWN: MNABE 2004/07/14<br>CHKD: KTOJO 2004/07/14<br>APPR: NUKITA 2004/07/14<br>REV: 0          | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY |                           | SCALE<br>---                    | MODEL NO.<br>DESIGN UNITS<br>METRIC | 52559-**79 |
|  | 10 UNDER                              | ±0.2   | DRAWN BY<br>MNABE1         | DATE<br>'04/07/13         | TITLE<br>0.5 FPC CONN ASSY ZIF. |                                     |            |
|  | 10 OVER 30 UNDER                      | ±0.25  | CHECKED BY<br>KTOJO        | DATE<br>'04/07/13         | -LEAD FREE-                     |                                     |            |
|  | 30 OVER                               | ±0.3   | APPROVED BY<br>NUKITA      | DATE<br>'04/07/13         | MOLEX INCORPORATED              |                                     |            |
| ANGULAR ±3 °   |                                       | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                            | MATERIAL NO.<br>SEE CHART | DOCUMENT NO.<br>SD-52559-048    | SHEET NO.<br>2 OF 2                 |            |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                       |  |                            |                           |                                 |                                     |            |

注記 NOTES

- 製品番号 52559-\*\*79 の梱包状態はアクチュエータがロックした状態とする。  
 詳細寸法については 製品単体図面を参照下さい。  
 IN THE PACKAGE,ACTUATOR OF PART NO.52559-\*\*79 SHOULD BE LOCKED  
 RE DETAILED DIMENSIONS,SEE ASSY DRAWING
- 梱包数量：1000個/リール  
 NUMBER OF CONNECTORS:1000PCS/REEL
- リードテープ長さ LEAD TAPE LENGTH



- トップテープの剥離強度：(剥離方向は下図参照)  
 0.1N~1.3N {10gf~130gf} 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事。)  
 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

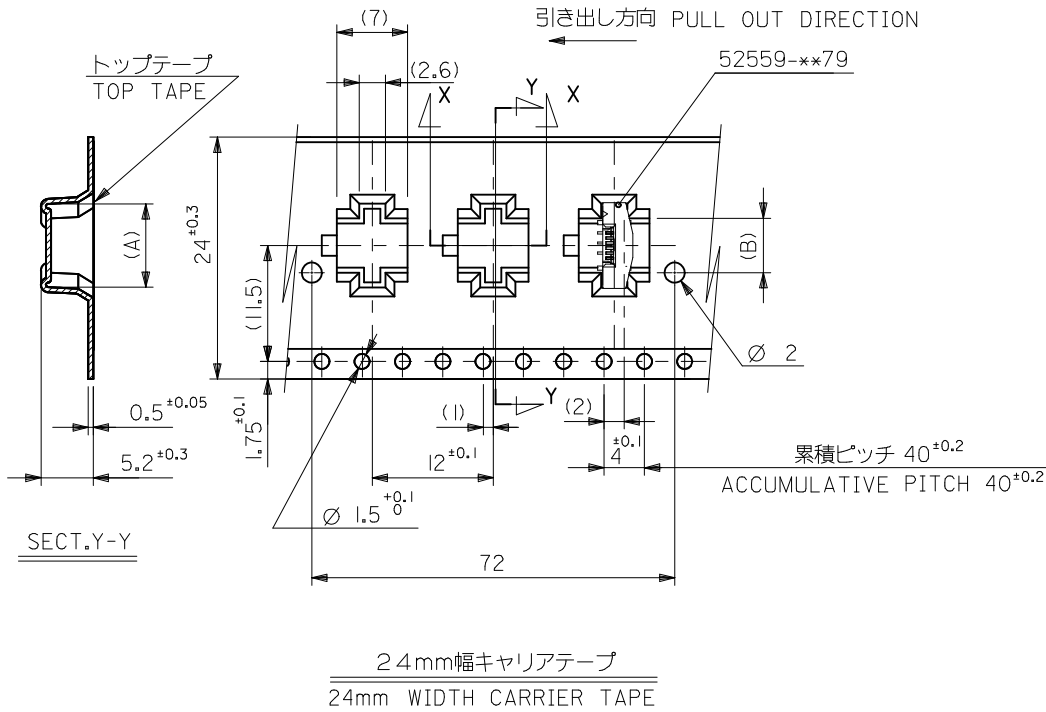


- 材料  
 キャリアテープ：ポリプロピレン (PP)  
 トップテープ：PET, PE, PEF  
 リール：ポリスチレン (PS) <リサイクル材を含む>

MATERIAL CARRIER TAPE:POLYPROPYLENE  
 TOP TAPE:PET,PE,PEF  
 REEL:POLYSTYRENE (PS)  
 <RECYCLE MATERIAL CONTAINED>

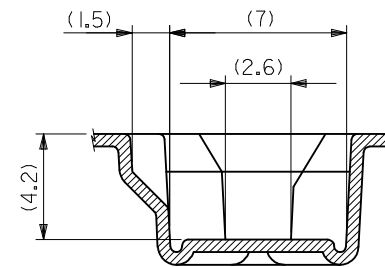
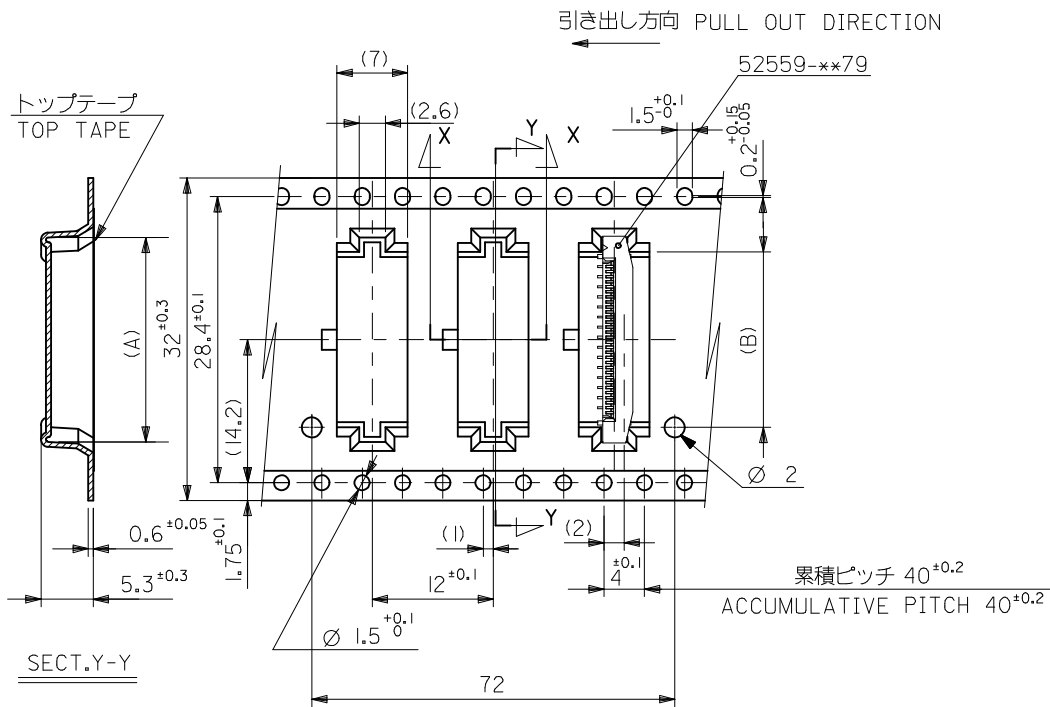
- 本製品は 52559-\*\*53 のエンボステープ違い品である。  
 THIS PRODUCT IS EMBOSSED TAPE DIFFERENCE ARTICLE OF 52559-\*\*53.
- 本製品は乾燥剤入り、ハイバリア梱包仕様である。  
 THIS PRODUCT IS HIGH BARRIER PACKAGE WITH DESICCANT.

|   |                    |  |  |                               |                   |  |                     |                        |  |
|---|--------------------|--|--|-------------------------------|-------------------|--|---------------------|------------------------|--|
| REVISED<br>EC NO: J2009-2061<br>DRWN:TKON 2009/05/20<br>CHKD:HMATSUMOTO 2009/05/21<br>APPR:NUKITA 2009/05/21                  | DESCRIPTION<br>REV | GENERAL TOLERANCES (UNLESS SPECIFIED)                |  | DIMENSION STYLE<br>MM ONLY    |                   | SCALE<br>---   | 52559-**52          | MODEL NO.              |  |
|   |                    | 10 UNDER ±0.2  |  | DRAWN BY<br>MNABEI            | DATE<br>'04/07/13 | TITLE  | METRIC              | THIRD ANGLE PROJECTION |  |
|   |                    | 10 OVER 30 UNDER ±0.25                               |  | CHECKED BY<br>KTOJO           | DATE<br>'04/07/13 | 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE- |                     |                        |  |
|   |                    | 30 OVER ±0.3   |  | APPROVED BY<br>NUKITA         | DATE<br>'04/07/13 | MOLEX INCORPORATED                                   |                     |                        |  |
| ANGULAR ±3 °  |                    | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |  | MATERIAL NO.<br>SEE SHEET 2-4 |                   | DOCUMENT NO.<br>SD-52559-049                         | SHEET NO.<br>1 OF 4 |                        |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                    |  |  |                               |                   |  |                     |                        |  |



|                                |      |            |      |      |            |     |              |             |
|--------------------------------|------|------------|------|------|------------|-----|--------------|-------------|
| 24                             | 29.4 | 25.4       | 14.4 | 17.3 | 52559-2452 | 24  |              |             |
|                                |      |            | 13.9 | 16.8 | 52559-2352 | 23  |              |             |
|                                |      |            | 12.9 | 15.8 | 52559-2152 | 21  |              |             |
|                                |      |            | 12.4 | 15.3 | 52559-2052 | 20  |              |             |
|                                |      |            | 10.9 | 13.8 | 52559-1752 | 17  |              |             |
|                                |      |            | 10.4 | 13.3 | 52559-1652 | 16  |              |             |
|                                |      |            | 9.9  | 12.8 | 52559-1552 | 15  |              |             |
|                                |      |            | 9.4  | 12.3 | 52559-1452 | 14  |              |             |
|                                |      |            | 8.4  | 11.3 | 52559-1252 | 12  |              |             |
|                                |      |            | 7.4  | 10.3 | 52559-1052 | 10  |              |             |
|                                |      |            | 6.9  | 9.8  | 52559-0952 | 9   |              |             |
| 5.4                            | 8.3  | 52559-0652 | 6    |      |            |     |              |             |
| キャリアテープ幅<br>CARRIER TAPE WIDTH |      |            | D    | C    | (B)        | (A) | MATERIAL NO. | CIRCUIT NO. |

|   |                                       |  |                            |   |   |           |
|---|---------------------------------------|--|----------------------------|---|---|-----------|
| <b>REVISED</b><br>EC NO: J2009-2061<br>DRWN:TKON 2009/05/20<br>CHKD:HMATSUMOTO 2009/05/21<br>APPR:NUKITA 2009/05/21 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY | SCALE<br>---  | 52559-**-52   | MODEL NO. |
|   | 10 UNDER                              | ±0.2   | DRAWN BY<br>MNABEI         | DATE<br>'04/07/13   | THIRD ANGLE PROJECTION  |           |
|   | 10 OVER 30 UNDER                      | ±0.25  | CHECKED BY<br>KTOJO        | DATE<br>'04/07/13   | TITLE<br>0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE- |           |
|   | 30 OVER                               | ±0.3   | APPROVED BY<br>NUKITA      | DATE<br>'04/07/13   | MOLEX INCORPORATED  |           |
|   | ANGULAR ±3 °                          | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.<br>SEE TABLE  | DOCUMENT NO.<br>SD-52559-049  | SHEET NO.<br>2 OF 4   |           |
|   |                                       |  | SIZE<br>A3                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |           |

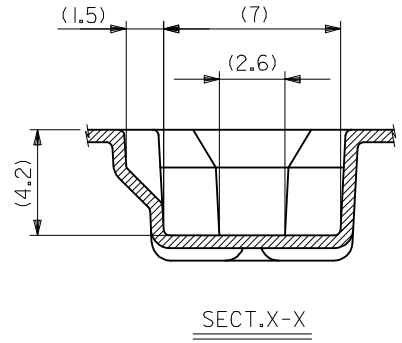
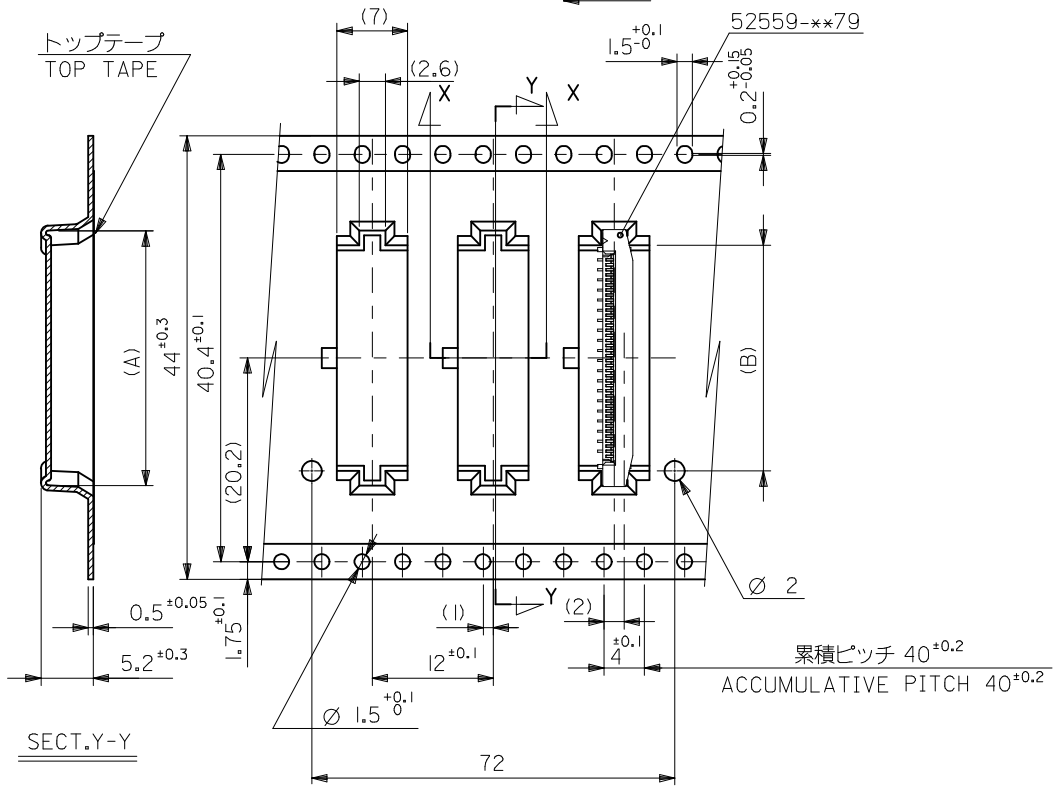


32mm幅キャリアテープ  
32mm WIDTH CARRIER TAPE

|                                |      |      |      |      |              |             |
|--------------------------------|------|------|------|------|--------------|-------------|
| 32                             | 37.4 | 33.4 | 18.4 | 21.3 | 52559-3252   | 32          |
|                                |      |      | 17.4 | 20.3 | 52559-3052   | 30          |
|                                |      |      | 16.4 | 19.3 | 52559-2852   | 28          |
|                                |      |      | 15.9 | 18.8 | 52559-2752   | 27          |
|                                |      |      | 15.4 | 18.3 | 52559-2652   | 26          |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | C    | (B)  | (A)  | MATERIAL NO. | CIRCUIT NO. |

|   |             |                                       |  |                            |   |  |           |  |
|---|-------------|---------------------------------------|--|----------------------------|---|--|-----------|--|
| REVISED<br>EC NO.: J2009-2061<br>DRWN:TKGN 2009/05/20<br>CHKD:HMATSUMOTO 2009/05/21<br>APPR:NUKITA 2009/05/21 | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY | SCALE<br>---  | 52559-**52   | MODEL NO. |  |
|   |             | 10 UNDER                              | ±0.2   | DRAWN BY<br>MNABEI         | DATE<br>'04/07/13   | 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-<br>MOLEX INCORPORATED |           |  |
|   |             | 10 OVER 30 UNDER                      | ±0.25  | CHECKED BY<br>KTOJO        | DATE<br>'04/07/13   |  |           |  |
|   |             | 30 OVER                               | ±0.3   | APPROVED BY<br>NUKITA      | DATE<br>'04/07/13   |  |           |  |
| REV   |             | ANGULAR ±3 °                          | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.<br>SEE TABLE  | DOCUMENT NO.<br>SD-52559-049  | SHEET NO.<br>3 OF 4  |           |  |
|   |             |                                       |  | SIZE<br>A3                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |           |  |

引き出し方向 PULL OUT DIRECTION



44mm幅キャリアテープ  
44mm WIDTH CARRIER TAPE

|                                |      |      |      |      |              |             |
|--------------------------------|------|------|------|------|--------------|-------------|
| 44                             | 49.4 | 45.4 | 22.4 | 25.3 | 52559-4052   | 40          |
|                                |      |      | 20.4 | 23.3 | 52559-3652   | 36          |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | C    | (B)  | (A)  | MATERIAL NO. | CIRCUIT NO. |

|   |                                       |   |                            |                   |   |  |                      |  |
|---|---------------------------------------|---|----------------------------|-------------------|---|--|----------------------|--|
| REVISED<br>EC NO.: J2009-2061<br>DRWN:TKON 2009/05/20<br>CHKD:HMATSUMOTO 2009/05/21<br>APPR:NUKITA 2009/05/21 | GENERAL TOLERANCES (UNLESS SPECIFIED) |   | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>---  |  | 52559-**52 MODEL NO. |  |
|   | 10 UNDER                              | ±0.2  | DRAWN BY<br>MNABEI         | DATE<br>'04/07/13 | TITLE<br>0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE- |  |                      |  |
|   | 10 OVER 30 UNDER                      | ±0.25   | CHECKED BY<br>KTOJO        | DATE<br>'04/07/13 |   |  |                      |  |
|   | 30 OVER                               | ±0.3  | APPROVED BY<br>NUKITA      | DATE<br>'04/07/13 | MOLEX INCORPORATED<br>SD-52559-049                            |  |                      |  |
| ANGULAR ±3 °  |                                       | MATERIAL NO.<br>SEE TABLE   |                            | DOCUMENT NO.      |   |  |                      |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                            |                   |   |  |                      |  |