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**Part Number:** [0525592752](#)  
**Status:** **Active**  
**Overview:**  
**Description:** 0.50mm (.020") Pitch FFC/FPC Connector, Vertical, SMT, ZIF, 27 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) 27  
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**  
Not Reviewed  
**Halogen-Free  
Status**

**China RoHS**



**Not Reviewed**

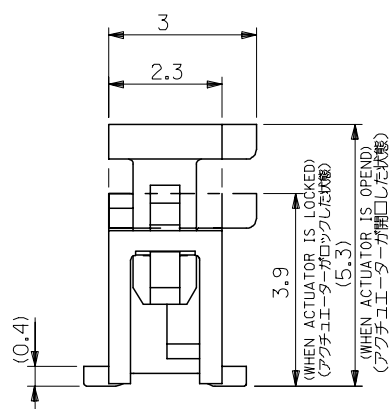
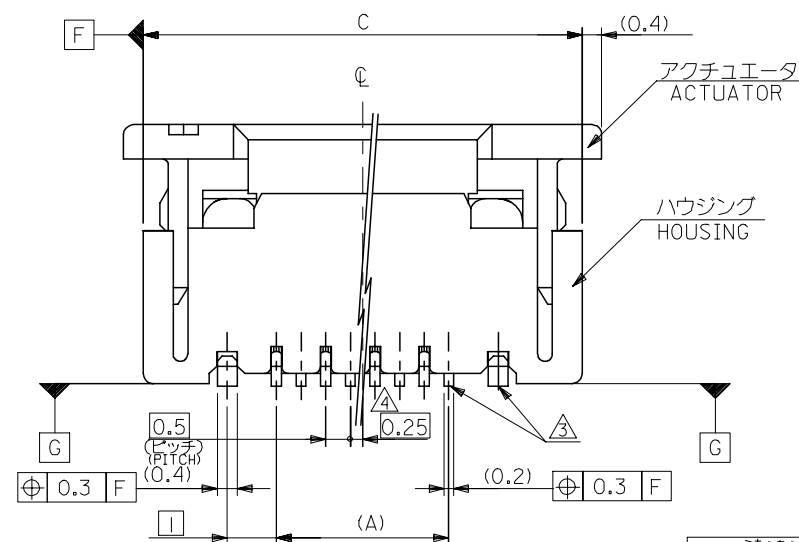
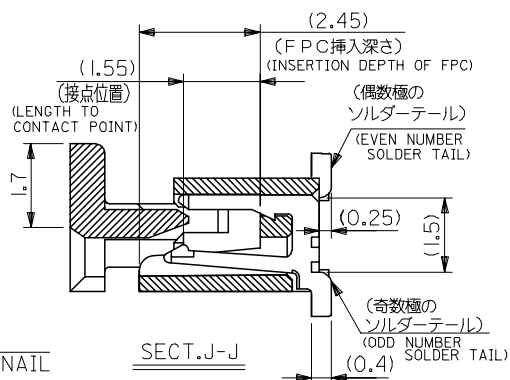
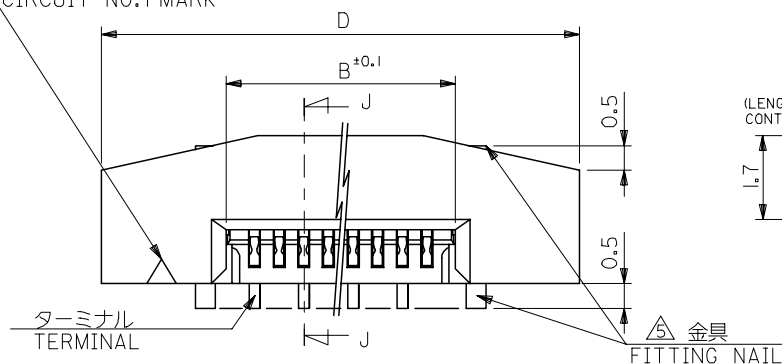
**Need more information on product  
environmental compliance?**

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 9 8 7 6 5 4 3 2 1

回路番号1用マーク  
CIRCUIT NO.1 MARK

## 注記 NOTES

## I. 使用材料 : MATERIAL

ハウジング : 46NYLON UL94V-0  
HOUSINGアクチュエータ : PPS UL94V-0  
ACTUATORターミナル : リン青銅 (t=0.2)  
TERMINAL 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

: リン青銅 (t=0.4)

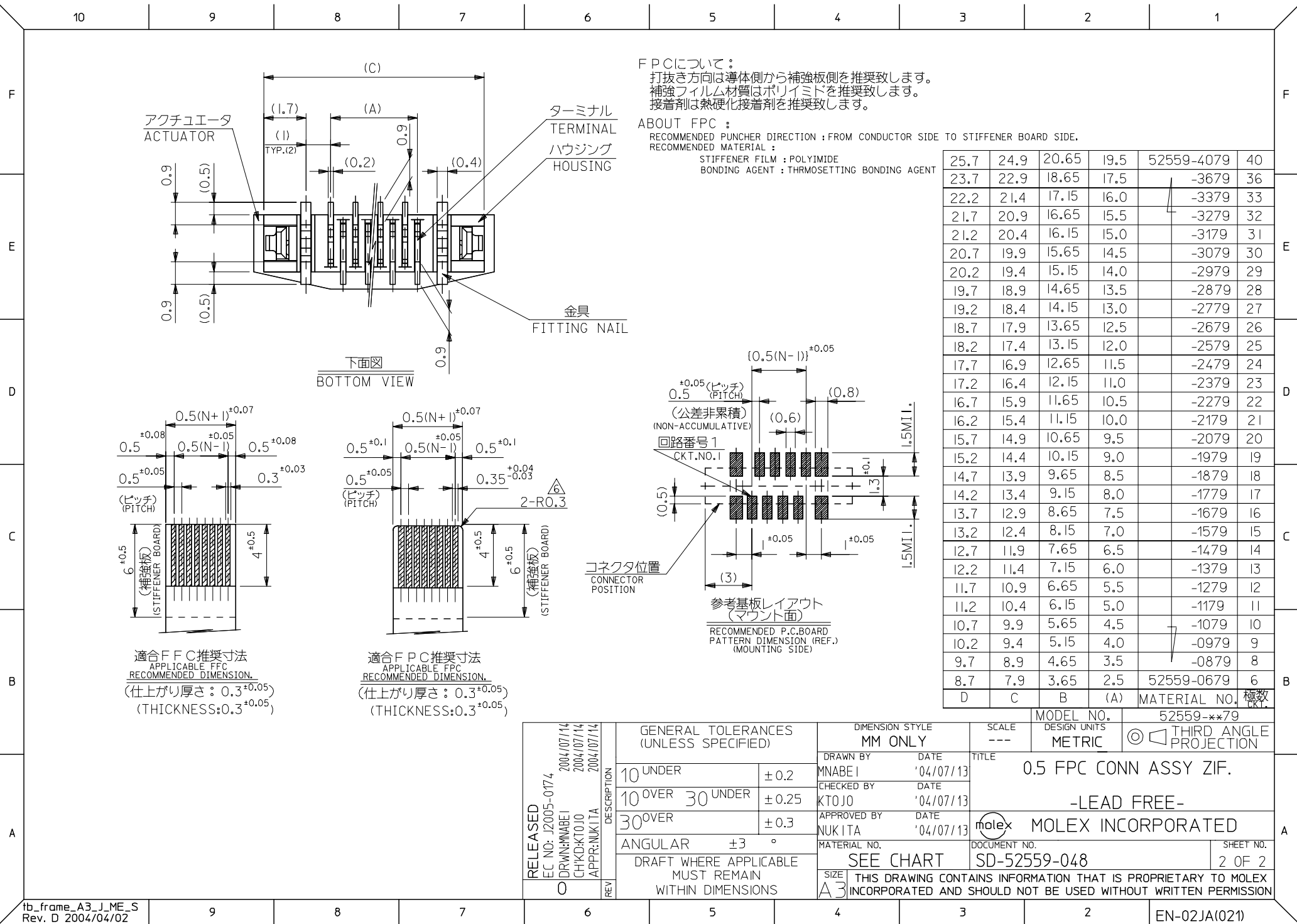
金具 : PHOS-BRO  
FITTING NAIL: 錫メッキ 1.0マイクロメートル以上  
TIN 1.0 MICROMETER MINIMUM: ニッケル下地 1.0マイクロメートル以上  
NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM2. エンボステープ梱包時は、アクチュエータがロックした状態とする。  
IN THE PACKAGE, ACTUATOR OF PART NO. 52559-\*\*79 SHOULD BE LOCKED.△3 ソルダータール半田付け面のズレ量、及び金具半田付け面のズレ量は、基準面 [G] に対し上方向 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.△4 偶数極に適用。  
APPLY FOR EVEN CIRCUIT.△5 パターンはくり止め用金具。  
FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.△6 R.O. 3は、FPCの導体部にかからないこと。  
R.O.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.

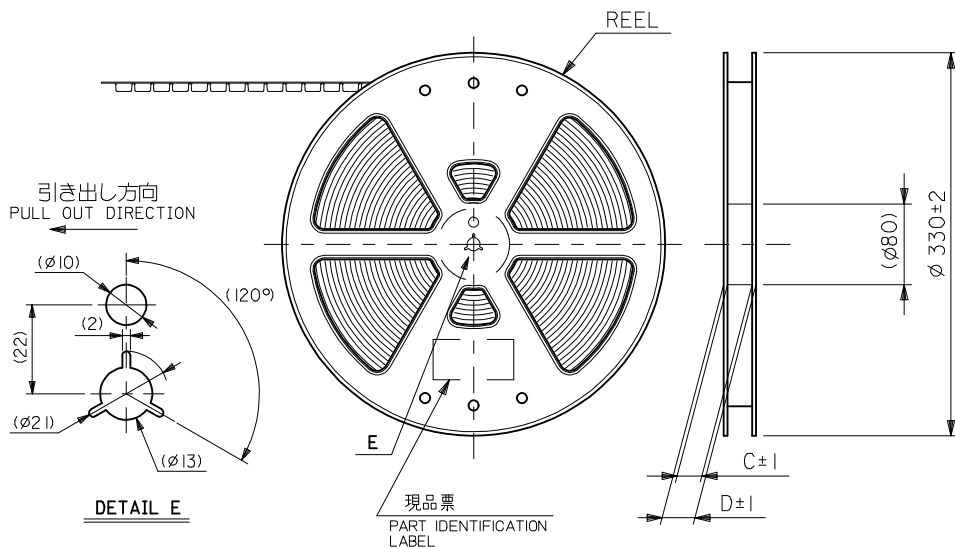
MODEL NO. 52559-\*\*79

GENERAL TOLERANCES  
(UNLESS SPECIFIED)DIMENSION STYLE  
MM ONLYSCALE  
---DESIGN UNITS  
METRICTHIRD ANGLE  
PROJECTIONRELEASED  
EC NO: J2005-0174  
DRWN: MNABE  
CHKD: KTOJO  
APPR: NUKITA  
REV  
0

DESCRIPTION

10 UNDER ±0.2  
10 OVER 30 UNDER ±0.25  
30 OVER ±0.3  
ANGULAR ±3 °  
DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONSDRAWN BY DATE  
MNABE '04/07/13  
CHECKED BY DATE  
KTOJO '04/07/13  
APPROVED BY DATE  
NUKITA '04/07/13  
MATERIAL NO.  
SEE CHART  
SIZE  
A3TITLE  
0.5 FPC CONN ASSY ZIF.  
-LEAD FREE-  
MOLEX INCORPORATED  
DOCUMENT NO.  
SD-52559-048  
SHEET NO.  
1 OF 2  
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION





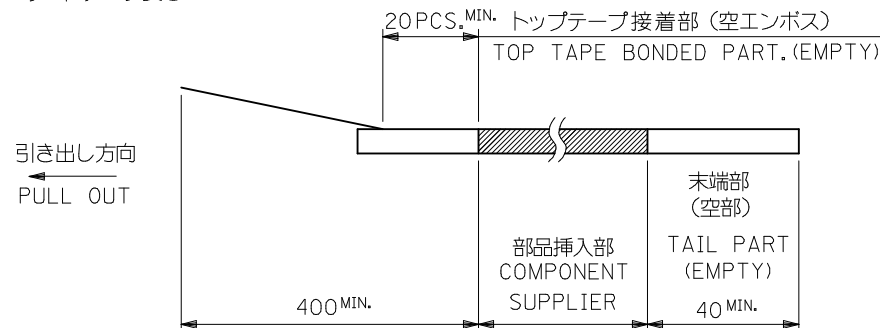
5. 材料      キャリアテープ:ポリプロピレン (PP)  
                 トップテープ:PET, PE, PEF  
                 リール:ポリスチレン (PS) <リサイクル材を含む>

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

6. 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.  
7. 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.

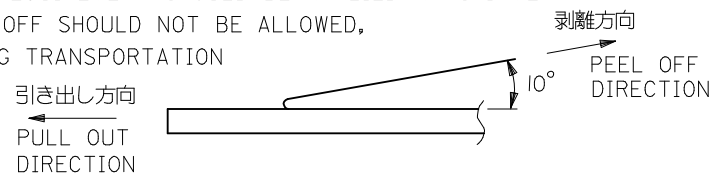
#### 注記 NOTES

- 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



4. 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



|                                                                            |             |                                                            |        |                               |                                                                                                                                  |                                                                                               |                              |                           |  |
|----------------------------------------------------------------------------|-------------|------------------------------------------------------------|--------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------|---------------------------|--|
| REVISED<br>EC NO: J2009-2061<br>DRWN:TKN<br>CHKD:HMATSUMOTO<br>APPR:NUKITA | DESCRIPTION | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                   |        | DIMENSION STYLE<br>MM ONLY    |                                                                                                                                  | SCALE<br>---                                                                                  | DESIGN UNITS<br>METRIC       | THIRD ANGLE<br>PROJECTION |  |
|                                                                            |             | 10 UNDER                                                   | ± 0.2  | DRAWN BY<br>MNABEI            | DATE<br>'04/07/13                                                                                                                | TITLE<br>0.5 FPC CONN ASSY ZIF<br>FOR SMT EMBSTP PKG<br>-LEAD FREE-<br><br>MOLEX INCORPORATED | DOCUMENT NO.<br>SD-52559-049 | SHEET NO.<br>1 OF 4       |  |
|                                                                            |             | 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                                                                                                                |                                                                                               |                              |                           |  |
|                                                                            |             | ANGULAR ±3 °                                               |        | MATERIAL NO.<br>SEE SHEET 2-4 |                                                                                                                                  |                                                                                               |                              |                           |  |
|                                                                            | REV         | 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 |                                                                                               |                              |                           |  |

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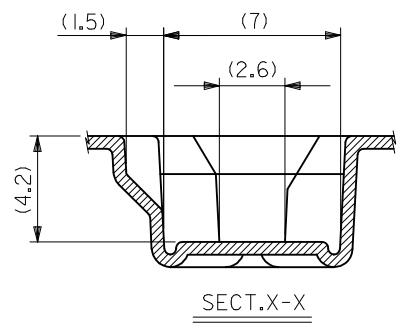
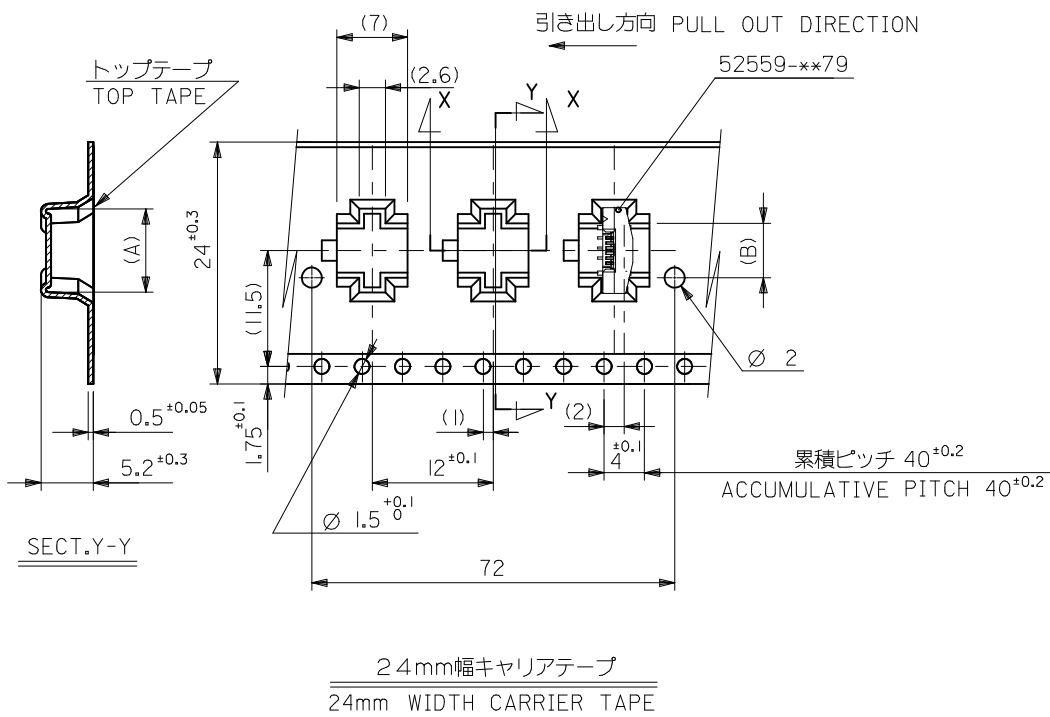
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|--------------------------------|------|------|------|------|------------|-----|--------------|-------------|
| 24                             | 29.4 | 25.4 | 14.4 | 17.3 | 52559-2452 | 24  |              |             |
|                                |      |      | 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. |

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

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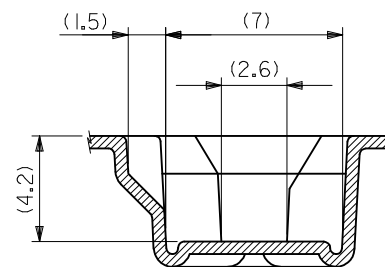
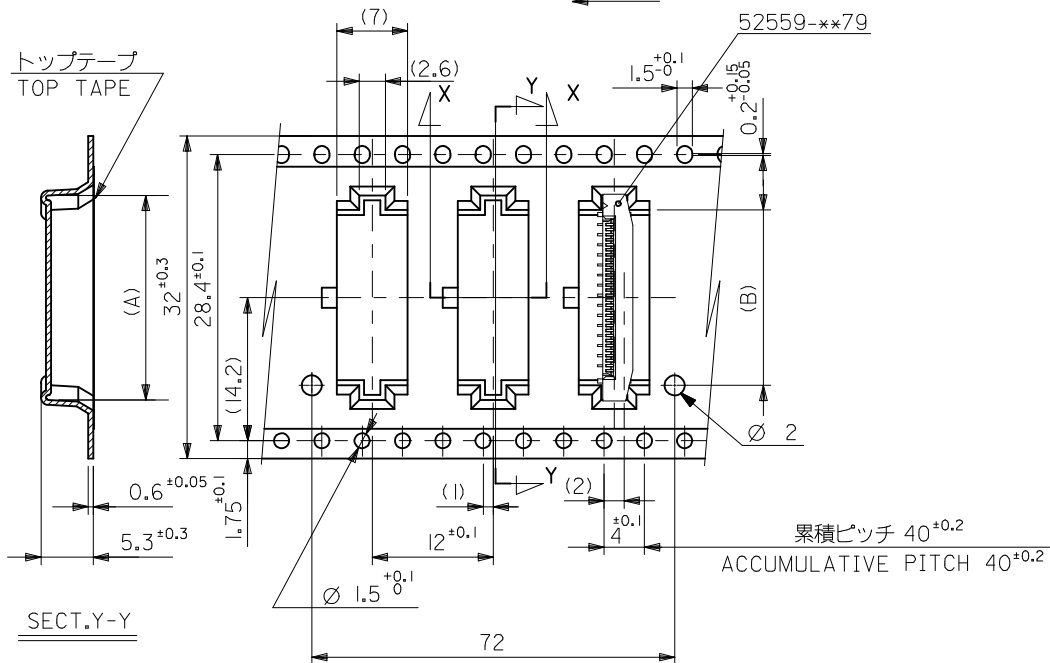
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引き出し方向 PULL OUT DIRECTION



SECT.X-X

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<br>CHKD:HMATSUMOTO<br>APPR:NUKITA<br>G | DESCRIPTION                                                | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |            | DIMENSION STYLE<br>MM ONLY |                                                                                                                                  | SCALE<br>---                                                        | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION |  |  |
|                                                                                  |                                                            | 10 UNDER                                 | ±0.2       | DRAWN BY<br>MNABEI         | DATE<br>'04/07/13                                                                                                                | TITLE<br>0.5 FPC CONN ASSY ZIF<br>FOR SMT EMBSTP PKG<br>-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                                                                                                                |                                                                     |                        |                           |  |  |
|                                                                                  |                                                            | ANGULAR ±3 °                             |            | MATERIAL NO.               |                                                                                                                                  | DOCUMENT NO.                                                        |                        | SHEET NO.                 |  |  |
|                                                                                  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                          | SEE TABLE  |                            | SD-52559-049                                                                                                                     |                                                                     | 3 OF 4                 |                           |  |  |
| REV                                                                              |                                                            |                                          | SIZE<br>A3 |                            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                                                     |                        |                           |  |  |

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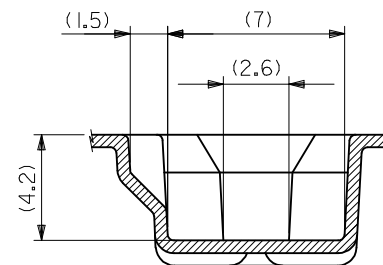
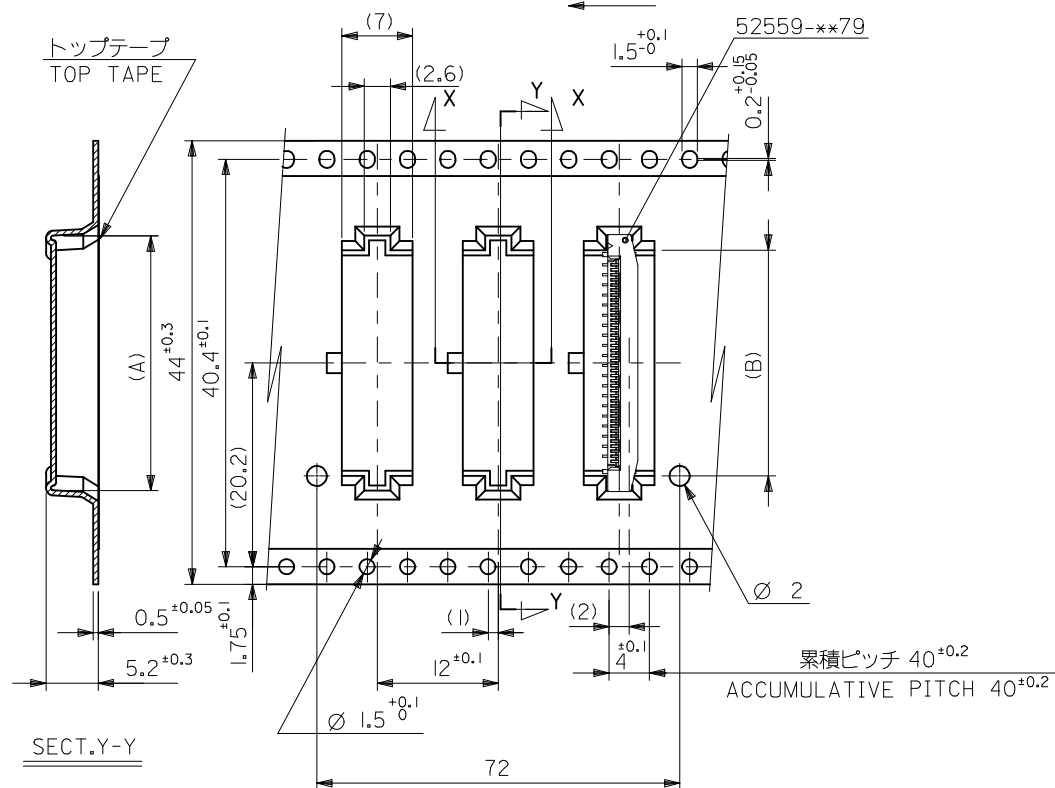
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引き出し方向 PULL OUT DIRECTION



SECT.X-X

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:TKN<br>CHKD:HMATSUMOTO<br>APPR:NUKITA<br>G | DESCRIPTION                                                | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |           | DIMENSION STYLE<br>MM ONLY |                                                                                                                                  | SCALE<br>---                                                                                             | DESIGN UNITS<br>METRIC |  | THIRD ANGLE<br>PROJECTION |
|                                                                                  |                                                            | 10 UNDER                                 | ± 0.2     | DRAWN BY<br>MNABEI         | DATE<br>'04/07/13                                                                                                                | TITLE<br>0.5 FPC CONN ASSY ZIF<br>FOR SMT EMBSTP PKG<br>-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 |                        |                                                                                       |                           |
|                                                                                  |                                                            | ANGULAR ±3 °                             |           | MATERIAL NO.               |                                                                                                                                  |                                                                                                          |                        |                                                                                       |                           |
|                                                                                  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                          | SEE TABLE |                            | SD-52559-049                                                                                                                     |                                                                                                          | 4 OF 4                 |                                                                                       |                           |
|                                                                                  | REV                                                        |                                          |           | SIZE<br>A3                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                                                                                          |                        |                                                                                       |                           |