

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

**Part Number:** [0537480408](#)  
**Status:** **Active**  
**Overview:** [slimstack\\_050mm\\_020\\_pitch](#)  
**Description:** 0.50mm (.020") Pitch SlimStack™ Plug, Surface Mount, Dual Row, Vertical, 3.00mm (.118") Stack Height, 40 Circuits, without Vacuum Pick-up Tape

**Documents:**  
[3D Model](#) [Product Specification PS-52991-003 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

|                |                                           |
|----------------|-------------------------------------------|
| Product Family | PCB Headers                               |
| Series         | <a href="#">53748</a>                     |
| Application    | Board-to-Board                            |
| Overview       | <a href="#">slimstack_050mm_020_pitch</a> |
| Product Name   | SlimStack™                                |

**Physical**

|                                |                       |
|--------------------------------|-----------------------|
| Breakaway                      | No                    |
| Circuits (Loaded)              | 40                    |
| Circuits (maximum)             | 40                    |
| First Mate / Last Break        | No                    |
| Glow-Wire Compliant            | No                    |
| Guide to Mating Part           | No                    |
| Keying to Mating Part          | None                  |
| Lock to Mating Part            | None                  |
| Mated Height (in)              | 0.118 In              |
| Mated Height (mm)              | 3.00 mm               |
| Material - Metal               | Brass                 |
| Material - Plating Mating      | Gold                  |
| Material - Plating Termination | Gold                  |
| Number of Rows                 | 2                     |
| Orientation                    | Vertical              |
| PCB Locator                    | No                    |
| PCB Retention                  | None                  |
| Packaging Type                 | Embossed Tape on Reel |
| Pitch - Mating Interface (in)  | 0.020 In              |
| Pitch - Mating Interface (mm)  | 0.50 mm               |
| Plating min: Mating (µin)      | 4                     |
| Plating min: Mating (µm)       | 0.1                   |
| Polarized to PCB               | No                    |
| Shrouded                       | Fully                 |
| Stackable                      | No                    |
| Temperature Range - Operating  | -40°C to +105°C       |
| Termination Interface: Style   | Surface Mount         |

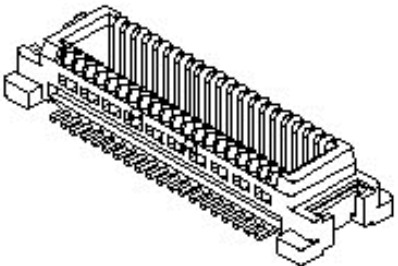
**Electrical**

|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 0.5A |
| Voltage - Maximum             | 50V  |

**Material Info**

**Reference - Drawing Numbers**

|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| Packaging Specification | SPK-53748-001                                             |
| Product Specification   | PS-52991-003, RPS-52991-006, RPS-52991-013, RPS-52991-019 |
| Sales Drawing           | SD-53748-002, SD-53748-005                                |



Series

image - Reference only

**EU RoHS**

**ELV and RoHS  
Compliant**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

**Status**

**Halogen-Free**

**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.

**China RoHS**



**Search Parts in this Series**

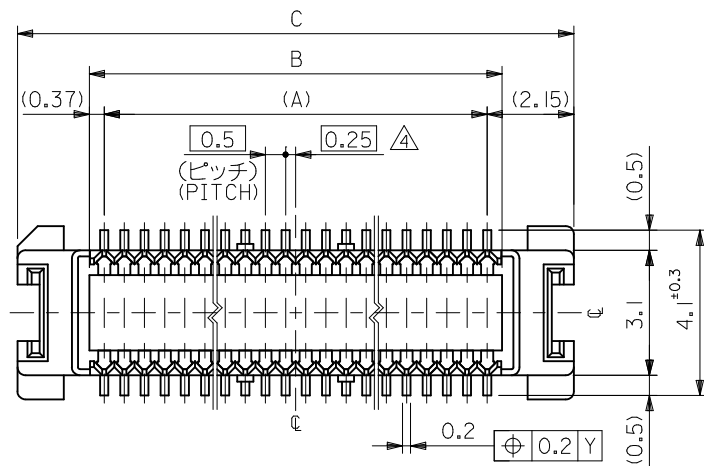
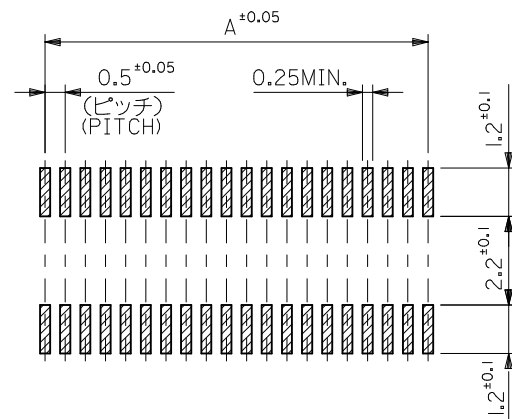
[53748Series](#)

**Mates With**

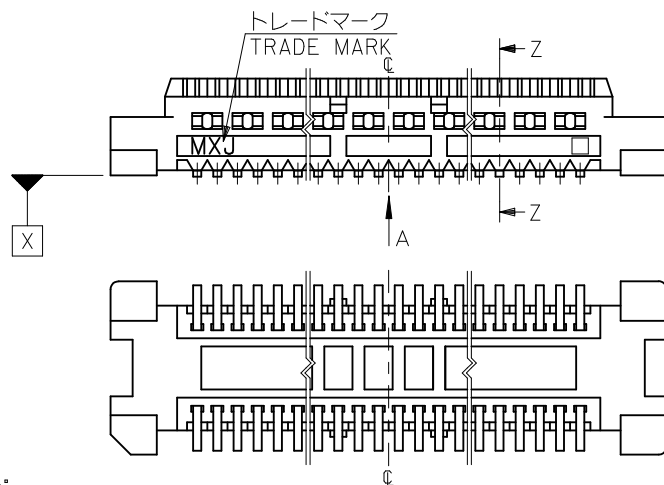
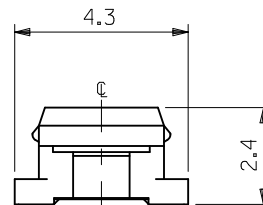
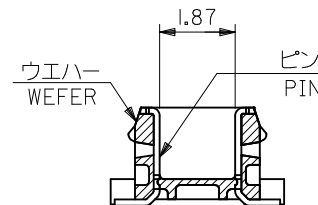
SlimStack™ Receptacle [52991](#) , [54167](#)

This document was generated on 05/26/2010

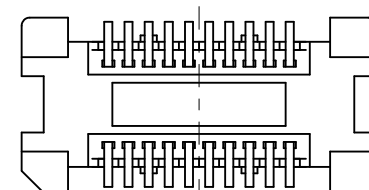
**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



参考基板レイアウト (マウント面)  
P.C. BOARD PATTERN  
DIMENSION. (REF.)  
(MOUNTING AREA)



SECT. Z-Z



VIEW A (CASE OF 20-30CKT)

注記 NOTES:

- 使用材料 MATERIAL  
ハウジング: LCPガラス入り (白), UL94V-0  
HOUSING: LCP (G.F.) (COLOR: WHITE), UL94V-0  
ターミナル: 黄銅 (t=0.15)  
TERMINAL: BRASS (t=0.15)
- メッキ仕様 PLATING  
全体仕上げ: 金メッキ 0.1 MICROMETER MIN.  
ALL OVER: GOLD 0.1 MICROMETER MIN.  
下地メッキ: ニッケルメッキ 1.5 MICROMETER MIN.  
UNDER PLATING: NICKEL 1.5 MICROMETER MIN.
- 基準面 [X] からのソルダーテールの半田付け面のズレ量は、上方向 0 下方向 0.15 MAX. とする。  
MISALIGNMENT OF SOLDER TAIL FROM [X]  
: UPPER DIRECTION 0, LOWER DIRECTION 0.15 MAX.
- (全極数/2) = 偶数の場合に適用。  
APPLY FOR (CIRCUIT/2) = EVEN.
- 嵌合相手: 52991 シリーズ 54167 シリーズ  
MATE WITH: 52991 SERIES, 54167 SERIES.
- テール平坦度は、0.1 MAX.  
TAIL COPLANARITY TO BE 0.1 MAX.
- ELV 及び RoHS 適合品  
ELV AND RoHS COMPLIANT

|      |       |      |                            |              |               |
|------|-------|------|----------------------------|--------------|---------------|
| 23.8 | 20.24 | 19.5 | 53748-0808                 | 53748-0800   | 80            |
| 21.3 | 17.74 | 17.0 | 53748-0708                 | 53748-0700   | 70            |
| 18.8 | 15.24 | 14.5 | 53748-0608                 | 53748-0600   | 60            |
| 13.8 | 10.24 | 9.5  | 53748-0408                 | 53748-0400   | 40            |
| 11.3 | 7.74  | 7.0  | 53748-0308                 | 53748-0300   | 30            |
| 8.8  | 5.24  | 4.5  | 53748-0208                 | 53748-0200   | 20            |
| C    | B     | A    | EMBOSSED TAPE<br>ORDER No. | MATERIAL NO. | 極数<br>CIRCUIT |

|                                                                                        |                                                       |                                                            |        |                            |                   |                                                                                                                                  |                        |                           |  |  |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------|--------|----------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|--|--|
| REVISED<br>EC NO: J2010-1926<br>DRW:K TOYODA<br>CHKD:SMARUYAMA<br>APPR:MSASAO<br>REV D | DESCRIPTION<br>2010/03/24<br>2010/03/26<br>2010/03/29 | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                   |        | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>8:1                                                                                                                     | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION |  |  |
|                                                                                        |                                                       | 10 UNDER                                                   | ± 0.2  | DRAWN BY<br>S. AIHARA      | DATE<br>'96/2/27  | TITLE<br>0.5 B-TO-B CONN<br>PLUG ASSY<br>(W/O BOSS , W/O NAIL)                                                                   |                        |                           |  |  |
|                                                                                        |                                                       | 10 OVER 30 UNDER                                           | ± 0.25 | CHECKED BY<br>M. SASAO     | DATE<br>'01/12/26 |                                                                                                                                  |                        |                           |  |  |
|                                                                                        |                                                       | 30 OVER                                                    | ± 0.3  | APPROVED BY<br>M. SASAO    | DATE<br>'01/12/26 | MOLEX INCORPORATED                                                                                                               |                        |                           |  |  |
|                                                                                        |                                                       | ANGULAR ±3 °                                               |        | MATERIAL NO.               |                   | DOCUMENT NO.                                                                                                                     |                        | SHEET NO.                 |  |  |
|                                                                                        |                                                       | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |        | SEE TABLE                  |                   | SD-53748-002                                                                                                                     |                        | 1 OF 2                    |  |  |
|                                                                                        |                                                       |                                                            |        | 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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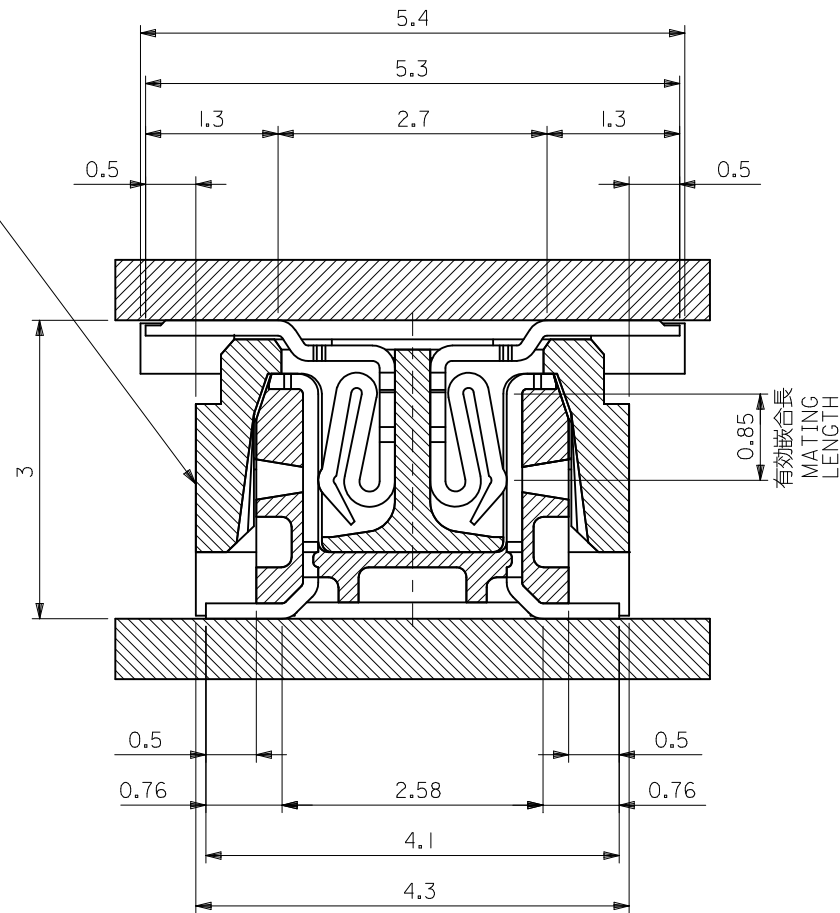
D

C

B

A

嵌合相手 MATE WITH  
52991-\*\*\*0 (白 WHITE)  
54167-\*\*\*1 (黒 BLACK)



嵌合断面図 (参考)  
MATED DRAWING (REF.)

MODEL NO. 53748-\*\*\*0

|                                                                                  |             |                                                                                                                                             |       |                            |                   |                                                                                                                                                                           |                        |                           |  |  |
|----------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|--|--|
| REVISED<br>EC NO.: J2010-1926<br>DRAWN-KITOYODA<br>CHKD:SMARUYAMA<br>APPR:MSASAO | DESCRIPTION | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                                                                                    |       | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>8:1                                                                                                                                                              | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION |  |  |
|                                                                                  |             | 10 UNDER                                                                                                                                    | ± --- | DRAWN BY<br>S. AIHARA      | DATE<br>'96/2/27  | TITLE<br>0.5 B-TO-B CONN<br>PLUG ASSY<br>(W/O BOSS ,W/O NAIL)<br> MOLEX INCORPORATED |                        |                           |  |  |
|                                                                                  |             | 10 OVER 30 UNDER                                                                                                                            | ± --- | CHECKED BY<br>M. SASAO     | DATE<br>'01/12/26 |                                                                                                                                                                           |                        |                           |  |  |
|                                                                                  |             | 30 OVER                                                                                                                                     | ± --- | APPROVED BY<br>M. SASAO    | DATE<br>'01/12/26 |                                                                                                                                                                           |                        |                           |  |  |
|                                                                                  |             | ANGULAR ± --- °                                                                                                                             |       | MATERIAL NO.               |                   | DOCUMENT NO.                                                                                                                                                              |                        | SHEET NO.                 |  |  |
|                                                                                  |             | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                  |       | SEE TABLE                  |                   | SD-53748-002                                                                                                                                                              |                        | 2 OF 2                    |  |  |
| D                                                                                | 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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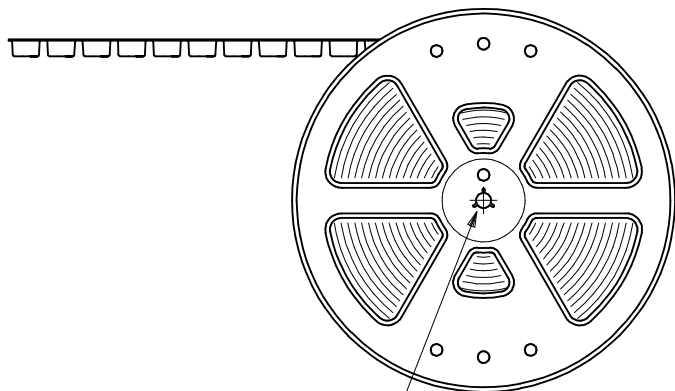
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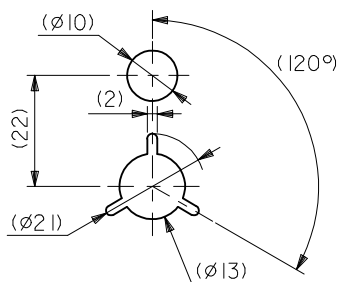
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引き出し方向  
PULL OUT  
DIRECTION

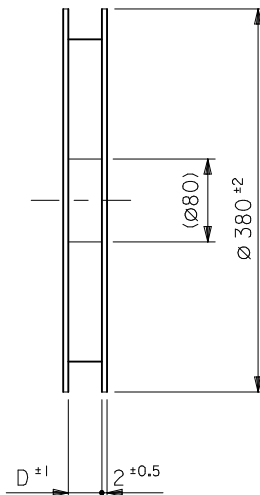


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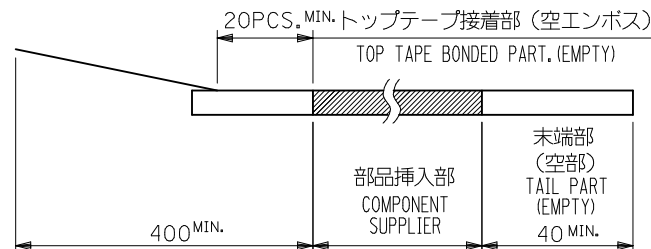
DETAIL "F"

引き出し方向  
PULL OUT  
DIRECTION



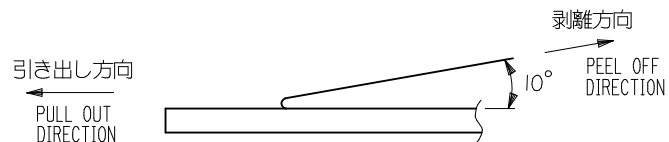
## NOTES

- 製品詳細寸法については図面 SD-53748-002 を参照下さい。  
RE DETAILED DIMENSION, SEE SD-53748-002
- 梱包数量：3000個/リール  
NUMBER OF CONNECTORS : 3000PCS/REEL
- リードテープ長さ LEAD TAPE LENGTH



- トップテープの剥離強度：0.1N ～ 0.7N(10.2gf ～ 71.4gf)  
(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 ～ 0.7N(10.2gf ～ 71.4gf)  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIG.)  
THIS REQUIREMENT SHOULD BE APPLIED AT SHIPMENT.  
PEEL OFF SHOULD NOT BE ALLOWED , DURING TRANSPORTATION.



- 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(TOPTAPE)：PET , PE , PEF  
リール(REEL)：ポリスチレン (PS) <リサイクル材を含む>  
POLYSTYREN(PS) <RECYCLE MATERIAL CONTAINED>

MODEL NO. 53748-\*\*\*8

|                                                                                    |                                                            |                                                                                                                                  |           |                             |                   |                                                       |                        |                                                                                                                 |              |
|------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------|-------------------|-------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------|--------------|
| REVISED<br>EC NO.: J2009-0487<br>DFW:NAKAMURA<br>CH:K.D.T. HARUYAMA<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>T. NIITSU       | DATE<br>'95/10/17 | TITLE<br>0.5 BTB CONN PLUG<br>(BOSS, NAIL) EMBSTP PKG |                        |                                                                                                                 |              |
|                                                                                    |                                                            | 10 OVER 30 UNDER                                                                                                                 | ± 0.25    | CHECKED BY<br>T. ITO        | DATE<br>'01/1/23  |                                                       |                        |                                                                                                                 |              |
|                                                                                    |                                                            | 30 OVER                                                                                                                          | ± 0.3     | APPROVED BY<br>M. FUKUSHIMA | DATE<br>'01/1/23  |                                                       |                        |                                                                                                                 |              |
|                                                                                    |                                                            | ANGULAR ± 3 °                                                                                                                    |           | MATERIAL NO.                |                   |                                                       |                        |                                                                                                                 | DOCUMENT NO. |
|                                                                                    | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                                                                                                                  | SEE TABLE |                             | SD-53748-005      |                                                       | 1 OF 5                 |                                                                                                                 |              |
|                                                                                    | REV                                                        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |           |                             |                   |                                                       |                        |                                                                                                                 |              |

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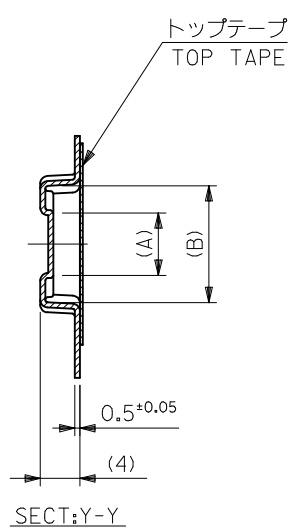
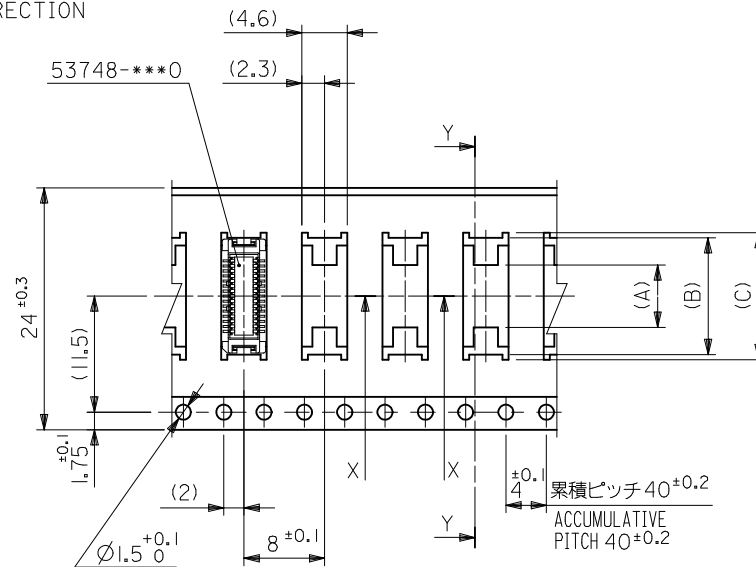
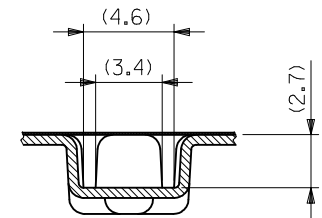
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引き出し方向  
PULL OUT DIRECTION

トップテープ  
TOP TAPE



SECT:X-X  
(SCALE:4-1)

24mm幅キャリアテープ  
24mm WIDTH CARRIER TAPE

|                                |      |      |      |     |              |            |
|--------------------------------|------|------|------|-----|--------------|------------|
| 24                             | 25.5 | 15.1 | 14.1 | 7.4 | 53748-0408   | 40         |
|                                |      | 12.6 | 11.6 | 4.9 | 53748-0308   | 30         |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | (C)  | (B)  | (A) | MATERIAL NO. | 極数<br>CKT. |

MODEL NO. 53748-\*\*\*8

|                                                                                     |                                                            |                                          |           |                             |                  |                                                                                                                                  |                        |                           |  |  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------|-----------|-----------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|--|--|
| REVISED<br>EC NO: J2009-0487<br>DRWN: NAKAMURA<br>CHKD: T. HARUYAMA<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                                 | ± ---     | DRAWN BY<br>S. AIHARA       | DATE<br>'96/4/1  | TITLE<br>0.5 BTB CONN PLUG(W/O<br>BOSS W/O NAIL)EMBSTP PKG                                                                       |                        |                           |  |  |
|                                                                                     |                                                            | 10 OVER 30 UNDER                         | ± ---     | CHECKED BY<br>T. ITO        | DATE<br>'01/1/23 |                                                                                                                                  |                        |                           |  |  |
|                                                                                     |                                                            | 30 OVER                                  | ± ---     | APPROVED BY<br>M. FUKUSHIMA | DATE<br>'01/1/23 | MOLEX INCORPORATED                                                                                                               |                        |                           |  |  |
|                                                                                     |                                                            | ANGULAR ± --- °                          |           | MATERIAL NO.                |                  | DOCUMENT NO.                                                                                                                     |                        | SHEET NO.                 |  |  |
|                                                                                     | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                          | SEE TABLE |                             | SD-53748-005     |                                                                                                                                  | 3 OF 5                 |                           |  |  |
|                                                                                     | 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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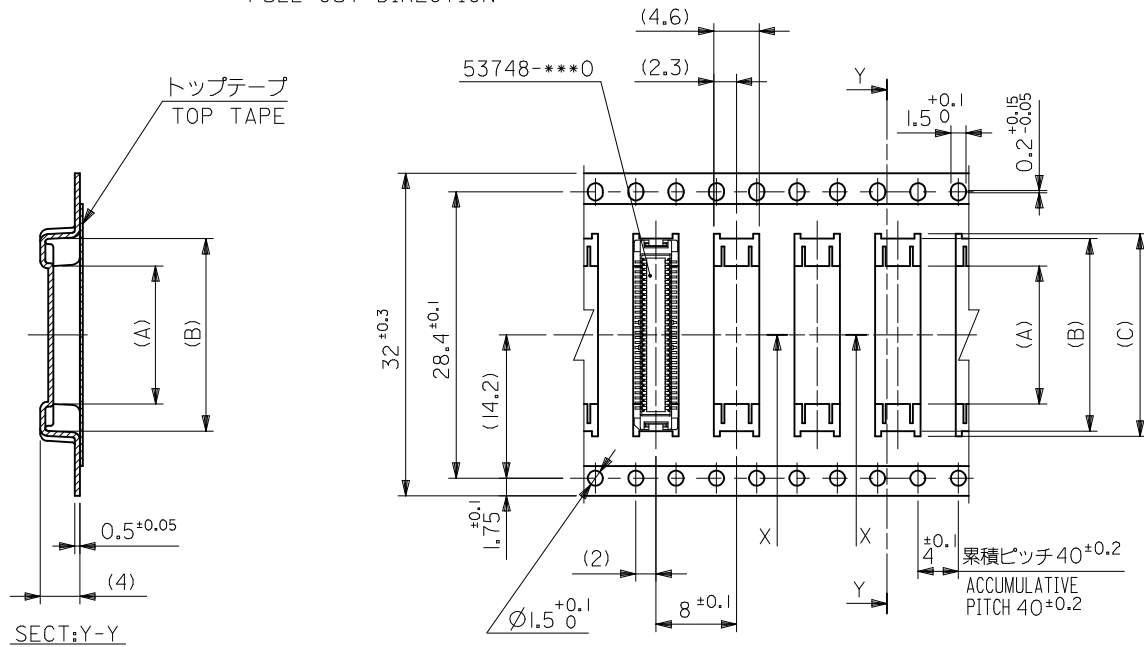
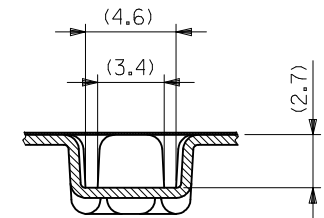
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引き出し方向  
PULL OUT DIRECTION



SECT:X-X  
(SCALE:4-1)

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

|                                |      |      |      |      |              |            |
|--------------------------------|------|------|------|------|--------------|------------|
| 32                             | 33.5 | 20.1 | 19.1 | 13.7 | 53748-0608   | 60         |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | (C)  | (B)  | (A)  | MATERIAL NO. | 極数<br>CKT. |
| MODEL NO.                      |      |      |      |      | 53748-***0   |            |

|                                                                                |             |                                                            |       |                             |                                                                                                                                  |                                                             |                        |                           |  |        |
|--------------------------------------------------------------------------------|-------------|------------------------------------------------------------|-------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------|---------------------------|--|--------|
| REVISED<br>EC NO: J2009-0487<br>DRWN:NAKAMURA<br>CHKD: HARUYAMA<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                                                   | ± --- | DRAWN BY<br>S. AIHARA       | DATE<br>'95/11/13                                                                                                                | TITLE<br>0.5 BTB CONN PLUG (W/O<br>BOSS W/O NAIL)ENBSTP PKG |                        |                           |  |        |
|                                                                                |             | 10 OVER 30 UNDER                                           | ± --- | CHECKED BY<br>T. ITO        | DATE<br>'01/1/23                                                                                                                 |                                                             |                        |                           |  |        |
|                                                                                |             | 30 OVER                                                    | ± --- | APPROVED BY<br>M. FUKUSHIMA | DATE<br>'01/1/23                                                                                                                 | MOLEX INCORPORATED                                          |                        |                           |  |        |
|                                                                                |             | ANGULAR ± --- °                                            |       | MATERIAL NO.                |                                                                                                                                  |                                                             |                        |                           |  |        |
|                                                                                |             | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |       | SEE TABLE                   |                                                                                                                                  | SD-53748-005                                                |                        |                           |  | 4 OF 5 |
|                                                                                | 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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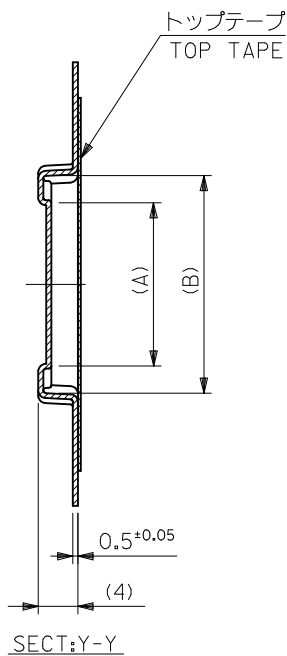
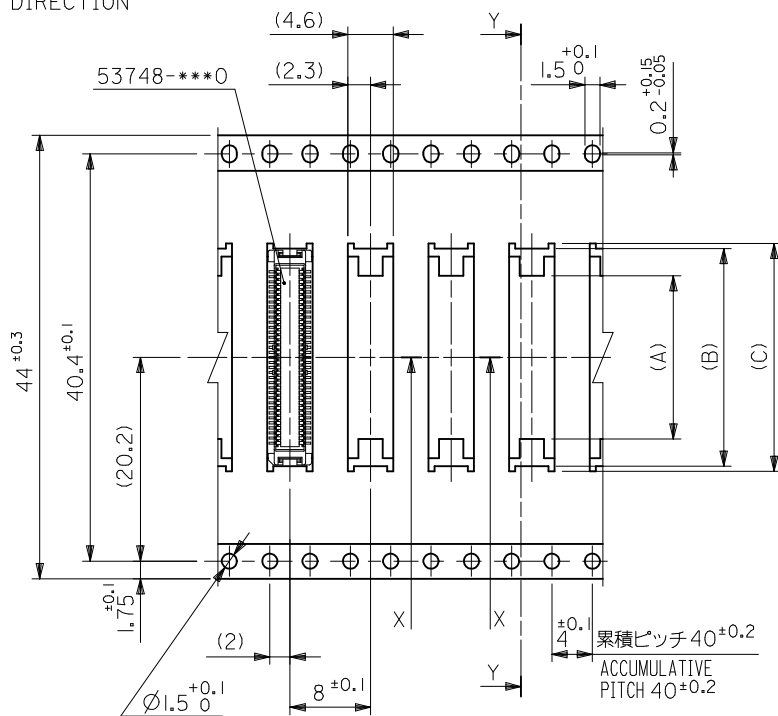
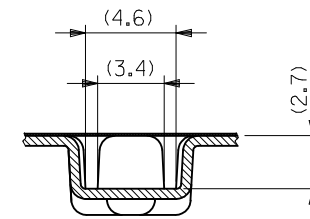
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10 9 8 7 6 5 4 3 2 1

引き出し方向  
PULL OUT DIRECTION



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

|                                |      |      |      |      |              |            |
|--------------------------------|------|------|------|------|--------------|------------|
| 44                             | 45.5 | 25.1 | 24.1 | 18.7 | 53748-0808   | 80         |
|                                |      | 22.6 | 21.6 | 16.2 | 53748-0708   | 70         |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | (C)  | (B)  | (A)  | MATERIAL NO. | 極数<br>CKT. |
|                                |      |      |      |      | MODEL NO.    | 53748-***8 |

|                                                                                     |             |                                                                                                                                  |       |                             |                  |                                                            |                        |                           |        |  |
|-------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------|------------------|------------------------------------------------------------|------------------------|---------------------------|--------|--|
| REVISED<br>EC NO: J2009-0487<br>DRWN: NAKAMURA<br>CHKD: T. HARUYAMA<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                                                                                                                         | ± --- | DRAWN BY<br>T. YASUI        | DATE<br>'96/4/16 | TITLE<br>0.5 BTB CONN PLUG(W/O<br>BOSS W/O NAIL)EMBSTP PKG |                        |                           |        |  |
|                                                                                     |             | 10 OVER 30 UNDER                                                                                                                 | ± --- | CHECKED BY<br>T. ITO        | DATE<br>'01/1/23 |                                                            |                        |                           |        |  |
|                                                                                     |             | 30 OVER                                                                                                                          | ± --- | APPROVED BY<br>M. FUKUSHIMA | DATE<br>'01/1/23 | MOLEX INCORPORATED                                         |                        |                           |        |  |
|                                                                                     |             | ANGULAR ± --- °                                                                                                                  |       | MATERIAL NO.                |                  |                                                            |                        |                           |        |  |
|                                                                                     |             | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                       |       | SEE TABLE                   |                  | SD-53748-005                                               |                        |                           | 5 OF 5 |  |
|                                                                                     | REV         | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |       |                             |                  |                                                            |                        |                           |        |  |