

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

**Part Number:** [0529961370](#)  
**Status:** **Active**  
**Overview:** [ffc fpc smt](#)  
**Description:** 1.00mm (.039") Pitch FFC/FPC Connector, Right Angle, SMT, ZIF, Top Contact Style, 13 Circuits

**Documents:**

[3D Model](#) [Product Specification PS-52996-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family FFC/FPC Connectors  
 Series [52996](#)  
 Overview [ffc fpc smt](#)  
 Product Name N/A

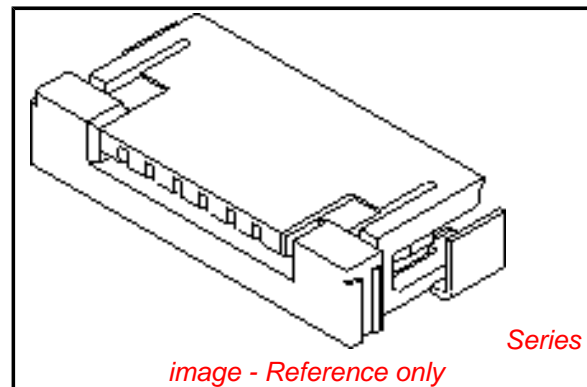
**Physical**

Circuits (Loaded) 13  
 Circuits (maximum) 13  
 Contact Position Top  
 Durability (mating cycles max) 30  
 Entry Angle 90° Angle  
 Mated Height (in) 0.106 In  
 Mated Height (mm) 2.70 mm  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Tin-Bismuth  
 Material - Plating Termination Tin-Bismuth  
 Number of Rows 1  
 Orientation Right Angle  
 PC Tail Length (in) 0.000 In  
 PC Tail Length (mm) 0.00 mm  
 PCB Locator No  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.031 In  
 PCB Thickness Recommended (mm) 0.80 mm  
 Packaging Type Embossed Tape on Reel  
 Pitch - Mating Interface (in) 0.039 In  
 Pitch - Mating Interface (mm) 1.00 mm  
 Pitch - Term. Interface (in) 0.039 In  
 Pitch - Term. Interface (mm) 1.00 mm  
 Plating min: Mating (µin) 40  
 Plating min: Mating (µm) 1  
 Plating min: Termination (µin) 40  
 Plating min: Termination (µm) 1  
 Polarized to PCB No  
 Stackable No  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -20°C to +85°C  
 Termination Interface: Style Surface Mount  
 Wire/Cable Type FPC only

**Electrical**

Current - Maximum per Contact 1A  
 Voltage - Maximum 125V AC (RMS)/DC

**Material Info**



*image - Reference only*

**EU RoHS**

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

**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**

[52996Series](#)

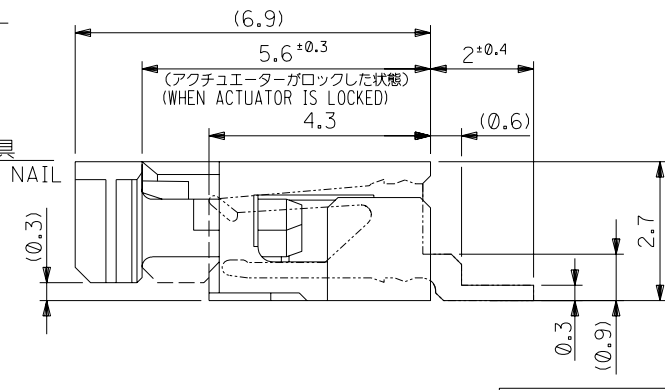
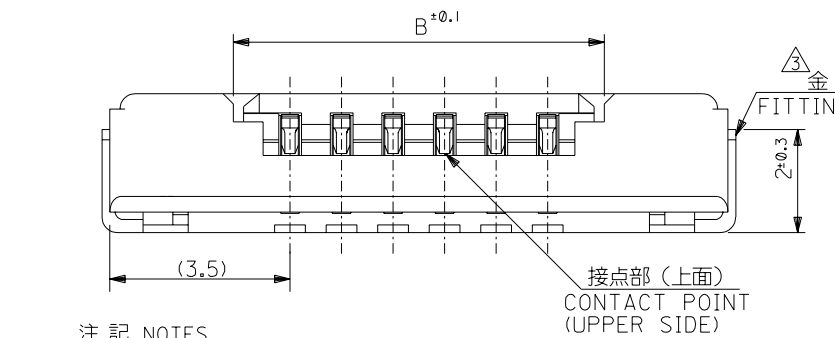
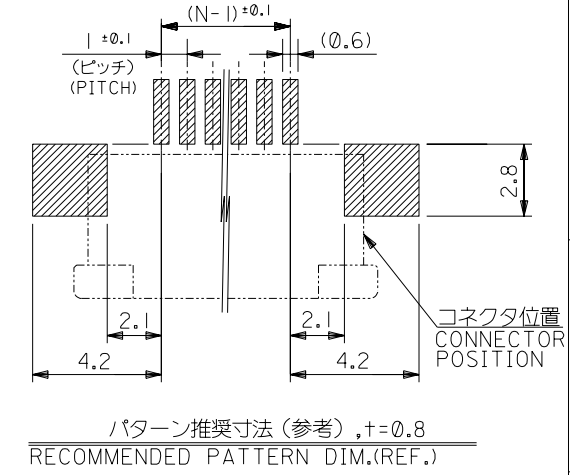
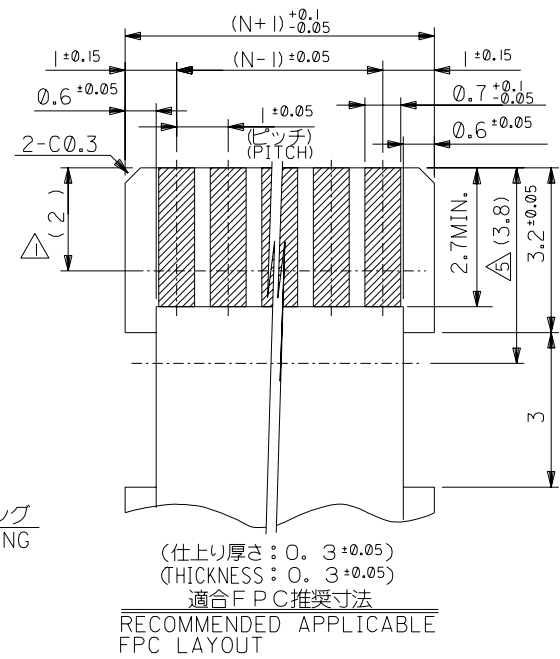
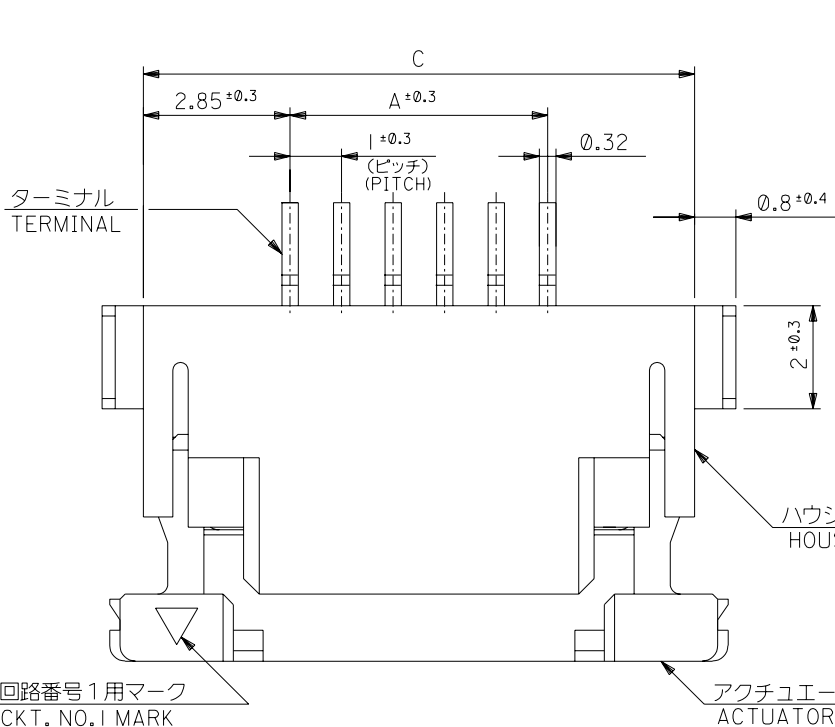
**Reference - Drawing Numbers**

Product Specification  
Sales Drawing

PS-52996-001, RPS-52996-001  
SD-52996-001, SD-52996-002

This document was generated on 06/07/2010

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注記 NOTES

- △ 接点部までの嵌合長さ。 LENGTH TO CONTACT POINT
- △ FPC 挿入深さ。 INSERTION DEPTH OF FPC.
- 2. 使用材料 MATERIAL  
ハウジング: 46ナイロン(青), UL94V-0  
HOUSING: 46NYLON(BLUE), UL94V-0  
アクチュエータ: PPS(黒), UL94V-0  
ACTUATOR: PPS(BLACK), UL94V-0  
ターミナル: リン青銅、錫ヒスマスメッキ (±0.32)  
TERMINAL: PHOS-BRO.TIN-BISMUTH PLATED(±0.32)  
金具: 銅合金、錫メッキ (±0.25)  
FITTING NAIL: COPPER ALLOY, TIN-PLATED(±0.25)
- △ パターン剥離止め用金具  
FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.
- 4. 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。  
WHEN CONNECTOR IS SHIPPED, ACTUATOR SHOULD BE LOCKED.
- 6. 本製品は 52996-\*\*\*11 の鉛フリー品である。  
THIS PRODUCT IS LEAD FREE OF 52996-\*\*\*11

|      |      |    |            |    |
|------|------|----|------------|----|
| 34.7 | 31.2 | 29 | 52996-3019 | 30 |
| 33.7 | 30.2 | 28 | -2919      | 29 |
| 32.7 | 29.2 | 27 | -2819      | 28 |
| 31.7 | 28.2 | 26 | -2719      | 27 |
| 30.7 | 27.2 | 25 | -2619      | 26 |
| 29.7 | 26.2 | 24 | -2519      | 25 |
| 28.7 | 25.2 | 23 | -2419      | 24 |
| 27.7 | 24.2 | 22 | -2319      | 23 |
| 26.7 | 23.2 | 21 | -2219      | 22 |
| 25.7 | 22.2 | 20 | -2119      | 21 |
| 24.7 | 21.2 | 19 | -2019      | 20 |
| 23.7 | 20.2 | 18 | -1919      | 19 |
| 22.7 | 19.2 | 17 | -1819      | 18 |
| 21.7 | 18.2 | 16 | -1719      | 17 |
| 20.7 | 17.2 | 15 | -1619      | 16 |
| 19.7 | 16.2 | 14 | -1519      | 15 |
| 18.7 | 15.2 | 13 | -1419      | 14 |
| 17.7 | 14.2 | 12 | -1319      | 13 |
| 16.7 | 13.2 | 11 | -1219      | 12 |
| 15.7 | 12.2 | 10 | -1119      | 11 |
| 14.7 | 11.2 | 9  | -1019      | 10 |
| 13.7 | 10.2 | 8  | -0919      | 9  |
| 12.7 | 9.2  | 7  | -0819      | 8  |
| 11.7 | 8.2  | 6  | -0719      | 7  |
| 10.7 | 7.2  | 5  | -0619      | 6  |
| 9.7  | 6.2  | 4  | -0519      | 5  |
| 8.7  | 5.2  | 3  | -0419      | 4  |

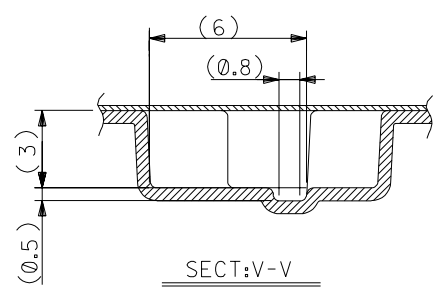
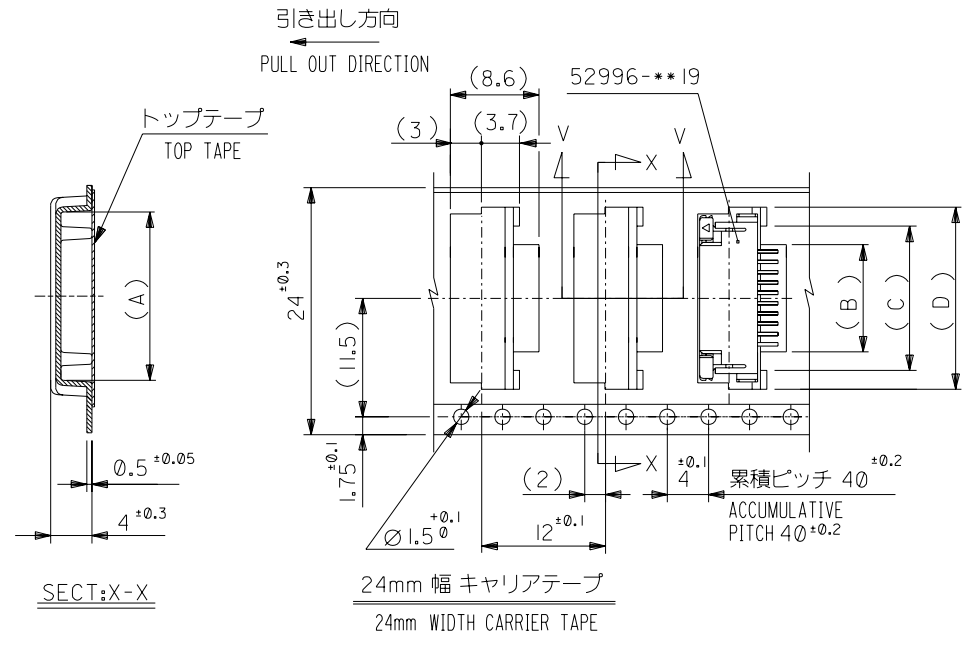
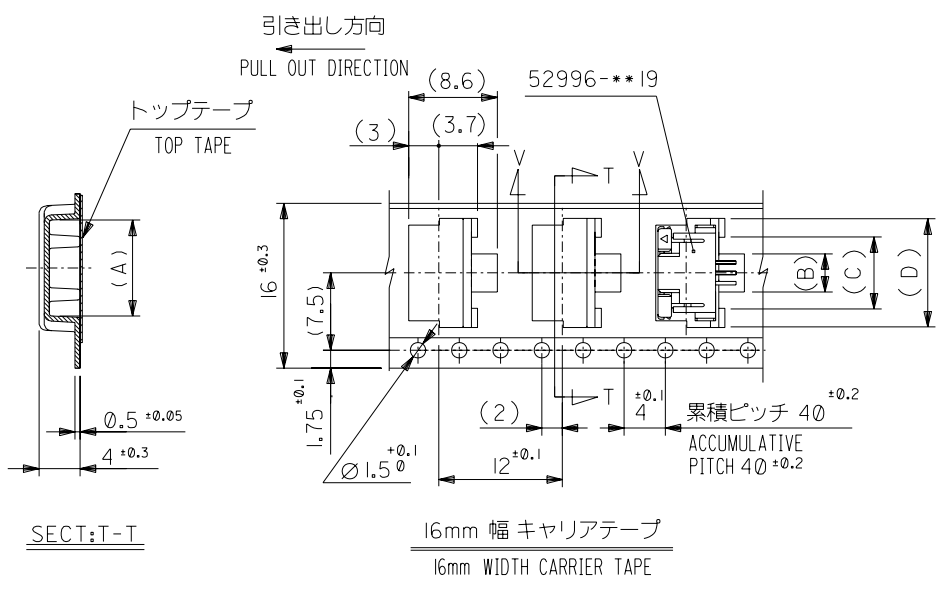
|             |     |     |   |              |            |
|-------------|-----|-----|---|--------------|------------|
| 52996-***19 | 7.7 | 4.2 | 2 | 52996-0319   | 3          |
| MODEL NO.   | C   | B   | A | MATERIAL NO. | 極数<br>CKT. |

|                         |       |
|-------------------------|-------|
| 角度 ANGLE                | ±3°   |
| 30°以上 OVER              | ±0.3  |
| 10°以上 OVER 30° UNDER    | ±0.25 |
| 未満 10° UNDER            | ±0.2  |
| 一般公差 GENERAL TOLERANCES |       |

|                               |                              |
|-------------------------------|------------------------------|
| 材料 MATERIAL                   | 注記参照<br>SEE NOTES            |
| 仕上げ FINISH                    | —//—                         |
| 適用電線範囲 WIRE RANGE             | —//—                         |
| 被覆外径 INS. RANGE               | —//—                         |
| DRAWN BY '04/03/05<br>M.NABEI | CHK'D BY '04/03/05<br>K.TOJO |
| APP'D BY '04/03/05<br>M.SASAO | 尺度 SCALE<br>—//—             |

|  |          |
|--|----------|
| molex MOLEX-JAPAN CO.,LTD.<br>日本モレックス株式会社                      |          |
| REVISE ONLY ON CAD SYSTEM                                      |          |
| TITLE 名称<br>1.0mm PITCH FPC.<br>CONN. ZIF. SMT.<br>-LEAD FREE- |          |
| DWG. NO.<br>SD-52996-001                                       | REV<br>0 |

DWG. NO. SD-52996-002



|      |      |      |      |       |      |      |            |    |
|------|------|------|------|-------|------|------|------------|----|
| 24   | 29.4 | 25.4 | 18.5 | 15    | 11.7 | 17.3 | 52996-1170 | 11 |
|      |      |      | 17.5 | 14    | 10.7 | 16.3 | -1070      | 10 |
|      |      |      | 16.5 | 13    | 9.7  | 15.3 | -0970      | 9  |
|      |      |      | 15.5 | 12    | 8.7  | 14.3 | -0870      | 8  |
|      |      |      | 14.5 | 11    | 7.7  | 13.3 | -0770      | 7  |
|      |      |      | 13.5 | 10    | 6.7  | 12.3 | -0670      | 6  |
|      |      |      | 12.5 | 9     | 5.7  | 11.3 | -0570      | 5  |
| 11.5 | 8    | 4.7  | 10.3 | -0470 | 4    |      |            |    |
| 16   | 21.4 | 17.4 | 10.5 | 7     | 3.7  | 9.3  | 52996-0370 | 3  |

|                            |                    |   |   |     |     |     |     |                                       |      |
|----------------------------|--------------------|---|---|-----|-----|-----|-----|---------------------------------------|------|
| 52996-***70                | キャリアテープ幅           | F | E | (D) | (C) | (B) | (A) | MATERIAL NO.                          | 極数   |
| MODEL NO.                  | CARRIER TAPE WIDTH |   |   |     |     |     |     |                                       | CKT. |
| 材料 MATERIAL                |                    |   |   |     |     |     |     | MATERIAL NO.                          |      |
| 注記参照 SEE NOTES             |                    |   |   |     |     |     |     | MATERIAL NO.                          |      |
| 仕上げ FINISH                 |                    |   |   |     |     |     |     | REVISE ONLY ON CAD SYSTEM             |      |
| 適用電線範囲 WIRE RANGE          |                    |   |   |     |     |     |     | TITLE 名称                              |      |
| 被覆外径 INS. RANGE            |                    |   |   |     |     |     |     | EMBOSSED TAPE PACKAGE FOR 52996-***19 |      |
| DRAWN BY '04/03/05 M.NABEI |                    |   |   |     |     |     |     | -LEAD FREE-                           |      |
| CHK'D BY '04/03/05 K.TOJO  |                    |   |   |     |     |     |     | DWG. NO. SD-52996-002                 |      |
| APP'D BY '04/03/05 M.SASAO |                    |   |   |     |     |     |     | REV (SHEET 1 OF 3)                    |      |
| 尺度 SCALE                   |                    |   |   |     |     |     |     | REV                                   |      |

|                         |       |
|-------------------------|-------|
| 角度 ANGLE                | ±3°   |
| 30 以上 OVER              | ±0.5  |
| 10 以上 30 未満 UNDER       | ±0.25 |
| 未満 10 UNDER             | ±0.2  |
| 一般公差 GENERAL TOLERANCES |       |

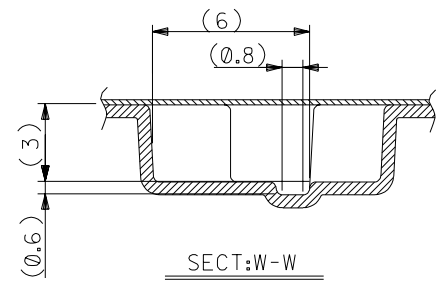
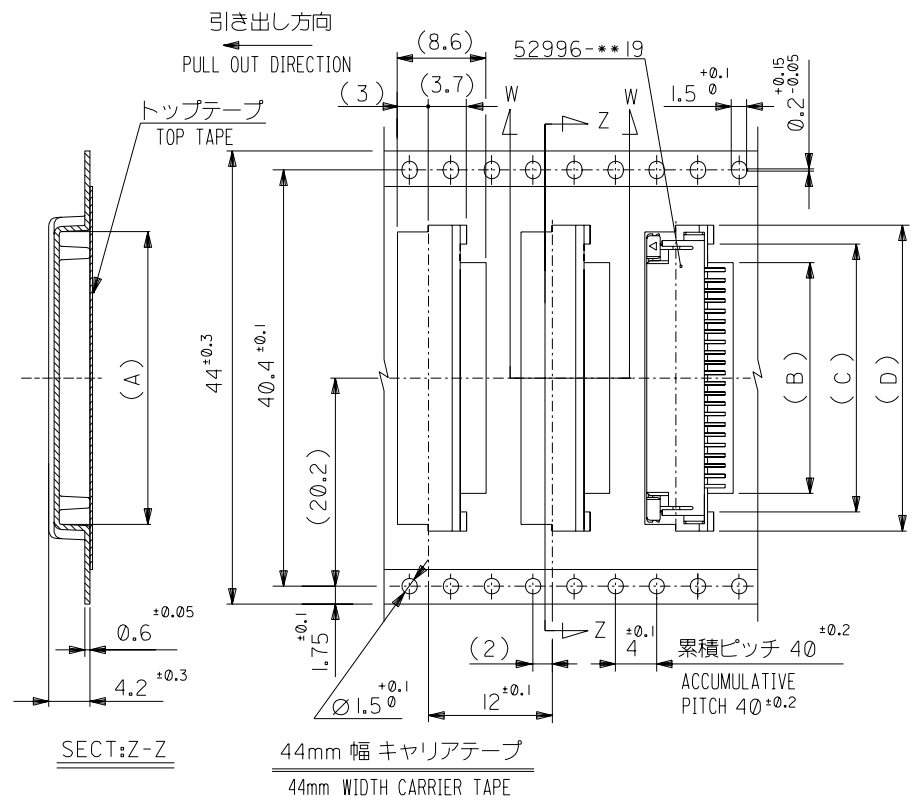
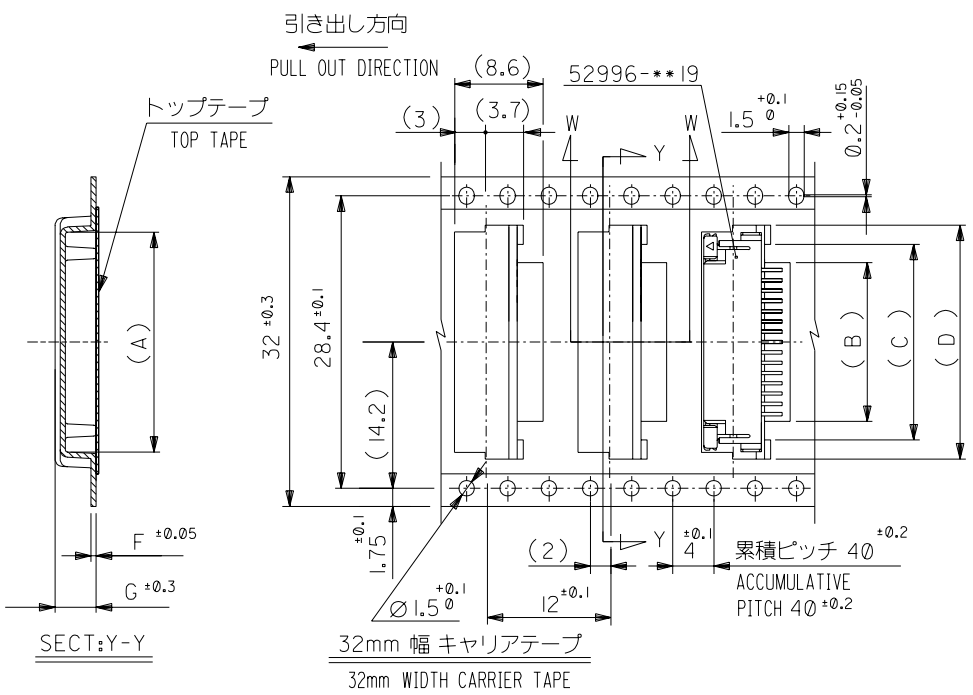
|        |                           |          |           |
|--------|---------------------------|----------|-----------|
| 記号 LTR | 変更内容 REVISION RECORD      | DR. CHK. | 日付 DATE   |
| ①      | 新規作成 PROPOSED (J2004-288) | M.N.     | '04/03/05 |

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DIMENSIONS IN METRIC DO NOT SCALE DRAWING

SD-52996-002.S01

DWG. NO. SD-52996-002



|                                |      |      |     |     |      |     |      |       |              |            |
|--------------------------------|------|------|-----|-----|------|-----|------|-------|--------------|------------|
| 32                             | 37.4 | 33.4 | 4.0 | 0.5 | 23.5 | 20  | 16.7 | 22.35 | 52996-1670   | 16         |
|                                |      |      | 4.2 | 0.6 | 22.5 | 19  | 15.7 | 21.35 | 4-1570       | 15         |
|                                |      |      | 4.2 | 0.6 | 21.5 | 18  | 14.7 | 20.35 | -1470        | 14         |
|                                |      |      | 4.2 | 0.6 | 20.5 | 17  | 13.7 | 19.35 | 7-1370       | 13         |
|                                |      |      | 4.2 | 0.6 | 19.5 | 16  | 12.7 | 18.35 | 52996-1270   | 12         |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | F    | E    | (G) | (F) | (D)  | (C) | (B)  | (A)   | MATERIAL NO. | 極数<br>CKT. |

|                                |      |      |      |     |      |       |              |            |
|--------------------------------|------|------|------|-----|------|-------|--------------|------------|
| 44                             | 49.4 | 45.4 | 34.5 | 31  | 27.7 | 33.35 | 52996-2770   | 27         |
|                                |      |      | 33.5 | 30  | 26.7 | 32.35 | 4-2670       | 26         |
|                                |      |      | 32.5 | 29  | 25.7 | 31.35 | -2570        | 25         |
|                                |      |      | 31.5 | 28  | 24.7 | 30.35 | -2470        | 24         |
|                                |      |      | 30.5 | 27  | 23.7 | 29.35 | -2370        | 23         |
|                                |      |      | 29.5 | 26  | 22.7 | 28.35 | -2270        | 22         |
|                                |      |      | 28.5 | 25  | 21.7 | 27.35 | -2170        | 21         |
|                                |      |      | 27.5 | 24  | 20.7 | 26.35 | -2070        | 20         |
|                                |      |      | 26.5 | 23  | 19.7 | 25.35 | -1970        | 19         |
|                                |      |      | 25.5 | 22  | 18.7 | 24.35 | 7-1870       | 18         |
|                                |      |      | 24.5 | 21  | 17.7 | 23.35 | 52996-1770   | 17         |
| キャリアテープ幅<br>CARRIER TAPE WIDTH | F    | E    | (D)  | (C) | (B)  | (A)   | MATERIAL NO. | 極数<br>CKT. |

|                            |       |
|----------------------------|-------|
| 角度 ANGLE                   | ±30°  |
| 30°以上 OVER                 | ±0.5  |
| 10°以上 30°未満 UNDER          | ±0.25 |
| 10°未満 UNDER                | ±0.2  |
| 一般公差<br>GENERAL TOLERANCES |       |

|           |                              |            |          |
|-----------|------------------------------|------------|----------|
| 記号<br>LTR | 変更内容<br>REVISION RECORD      | 日付<br>DATE | DR. CHK. |
| ①         | 新規作成<br>PROPOSED (J2004-288) | M.N.       | M.S.     |
|           |                              | 04/03/05   |          |

|                               |                              |
|-------------------------------|------------------------------|
| 材料<br>MATERIAL                | 注記参照<br>SEE NOTES            |
| 仕上げ<br>FINISH                 | —//—                         |
| 適用電線範囲<br>WIRE RANGE          | —//—                         |
| 被覆外径<br>INS. RANGE            | —//—                         |
| DRAWN BY '04/03/05<br>M.NABEI | CHK'D BY '04/03/05<br>K.TOJO |
| APP'D BY '04/03/05<br>M.SASAO | 尺度<br>SCALE —//—             |

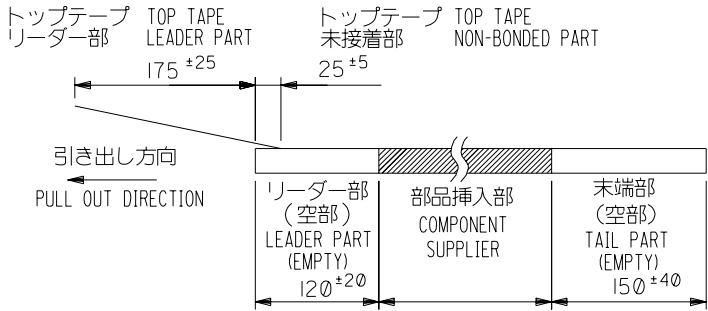
|   |     |
|---|-----|
| 52996-**70<br>MODEL NO.   |     |
| molex MOLEX-JAPAN CO.,LTD.<br>日本モレックス株式会社                         |     |
| REVISE ONLY ON CAD SYSTEM   |     |
| TITLE 名称<br>EMBOSSD TAPE PACKAGE<br>FOR 52996-**19<br>-LEAD FREE- |     |
| DWG. NO.  | REV |
| SD-52996-002<br>(SHEET 2 OF 3)                                    | ①   |

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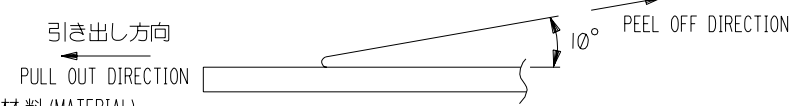
8 7 6 5 4 3 2 1

注記 NOTES

- 製品番号 52996-\*\*19 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図面 SD-52996-001 を参照下さい。  
 IN THE PACKAGE, ACTUATOR OF PART NO. 52996-\*\*19 SHOULD BE LOCKED  
 RE DETAILED DIMENSIONS, SEE SD-52996-001
- 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)



- トッテープの剥離強度：0.1~1.3N {10~130gf}  
 (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事。)  
 PEELING OFF FORCE OF TOP TAPE：0.1~1.3N {10~130gf}  
 (PEELING DIRECTION AS SHOWN IN FOLLOWING FIG.)  
 THIS REQUIREMENT SHOULD BE APPLIED AT SHIPMENT. (PEEL OFF SHOULD NOT BE ALLOWED, DURING TRANSPORTATION.)



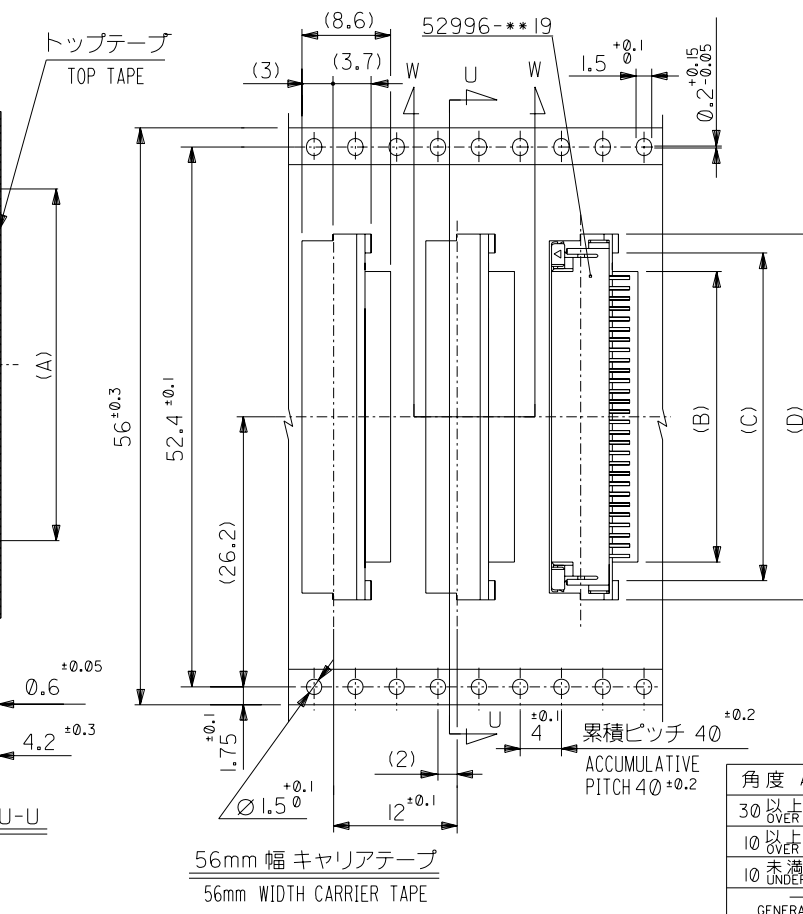
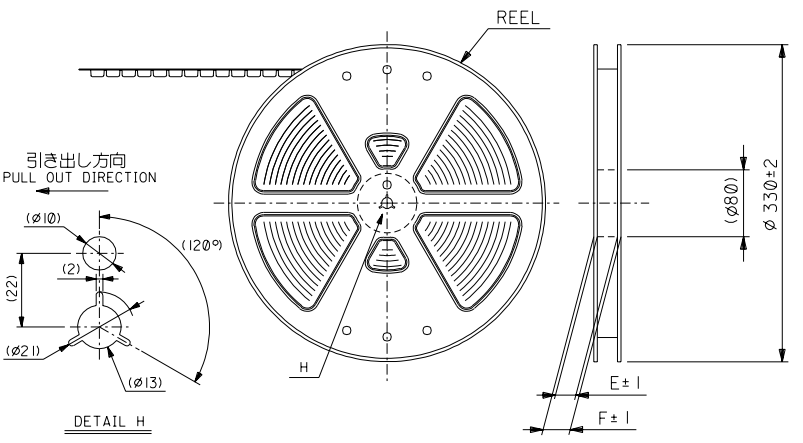
- 材料 (MATERIAL)  
 キャリアテープ：ポリプロピレン (PP)  
 CARRIER TAPE：POLYPROPYLENE  
 トッテープ：PET, PE, PEF  
 TOP TAPE：PET, PE, PEF  
 リール：紙製  
 REEL：CARD BOARD

- 本製品は 52996-\*\*90 の鉛フリー品である。  
 THIS PRODUCT IS LEAD FREE OF 52996-\*\*90

|            |                    |   |   |      |     |      |       |              |    |
|------------|--------------------|---|---|------|-----|------|-------|--------------|----|
| 52996-**70 | キャリアテープ幅           | F | E | (D)  | (C) | (B)  | (A)   | MATERIAL NO. | 極数 |
| MODEL NO.  | CARRIER TAPE WIDTH | F | E | (D)  | (C) | (B)  | (A)   | MATERIAL NO. | 極数 |
|            |                    |   |   | 37.5 | 34  | 30.7 | 36.35 | 52996-3070   | 30 |
|            |                    |   |   | 36.5 | 33  | 29.7 | 35.35 | 52996-2970   | 29 |
|            |                    |   |   | 35.5 | 32  | 28.7 | 34.35 | 52996-2870   | 28 |

|                            |  |                           |  |  |  |
|----------------------------|--|---------------------------|--|--|--|
| 材料 MATERIAL                |  | 注記参照 SEE NOTES            |  | molex MOLEX-JAPAN CO.,LTD. 日本モレックス株式会社 |  |
| 仕上げ FINISH                 |  | —                         |  | REVISE ONLY ON CAD SYSTEM              |  |
| 適用電線範囲 WIRE RANGE          |  | —                         |  | TITLE 名称                               |  |
| 被覆外径 INS. RANGE            |  | —                         |  | EMBOSSSED TAPE PACKAGE FOR 52996-**19  |  |
| DRAWN BY '04/03/05 M.NABEI |  | CHK'D BY '04/03/05 K.TOJO |  | -LEAD FREE-                            |  |
| APP'D BY '04/03/05 M.SASAO |  | 尺 度 SCALE                 |  | DWG. NO. SD-52996-002 (SHEET 3 OF 3)   |  |
| REV 0                      |  |                           |  |  |  |

|                         |       |
|-------------------------|-------|
| 角度 ANGLE                | ±3°   |
| 30 以上 OVER              | ±0.5  |
| 10 以上 30 未満 UNDER       | ±0.25 |
| 未 満 10 UNDER            | ±0.2  |
| 一般公差 GENERAL TOLERANCES |       |



8 7 6 5 4 3 2 1