

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

**Part Number:** [0525591252](#)  
**Status:** **Active**  
**Overview:**  
**Description:** 0.50mm (.020") Pitch FFC/FPC Connector, Vertical, SMT, ZIF, 12 Circuits, Lead-free, Gold (Au) 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) 12  
 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-52559-065, 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**

**China RoHS**



**Not 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.

**Search Parts in this Series**

[52559Series](#)

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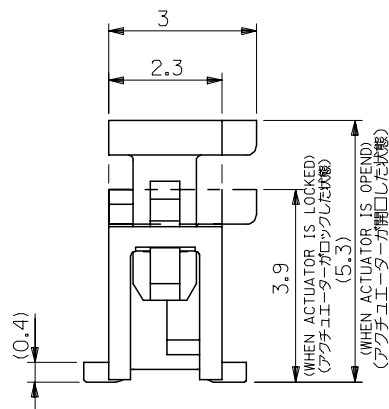
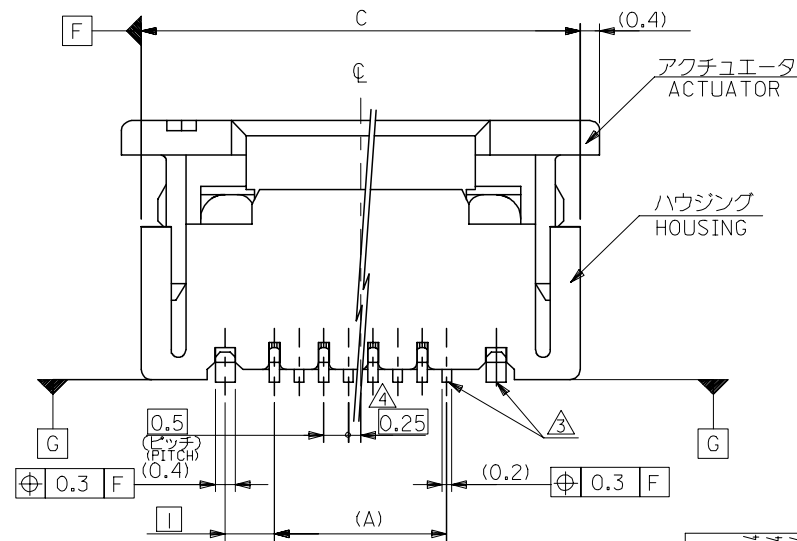
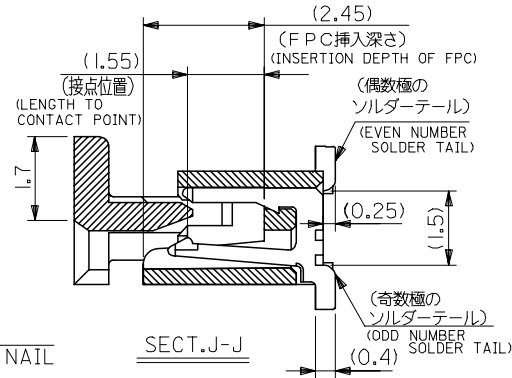
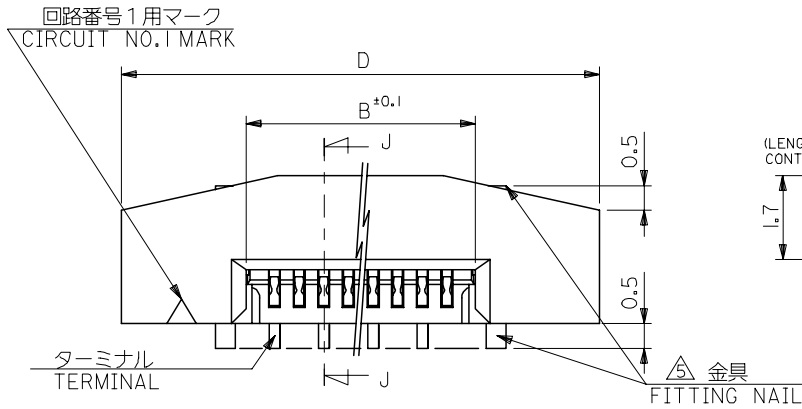
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注記 NOTES

1. 使用材料 : MATERIAL

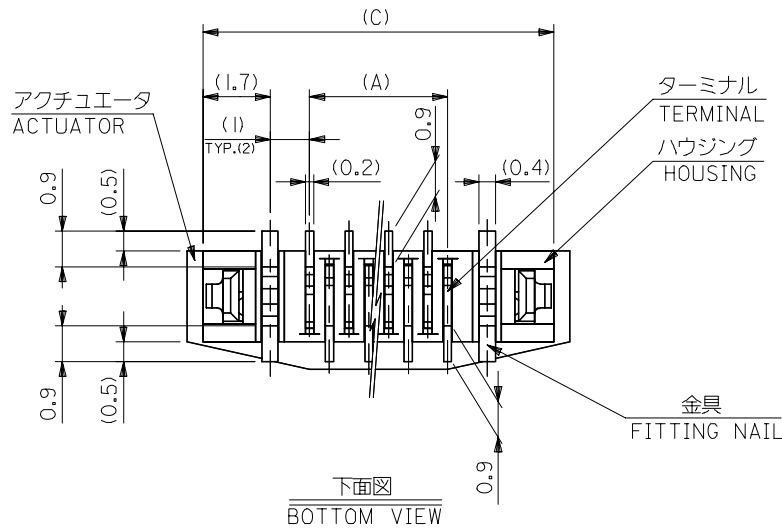
- ハウジング HOUSING : 46NYLON UL94V-0
- アクチュエータ ACTUATOR : PPS UL94V-0
- ターミナル TERMINAL : リン青銅 (t=0.2) PHOS-BRO
- 接点部 金メッキ 0.1マイクロメートル以上 CONTACT GOLD 0.1 MICROMETER MINIMUM
- 半田付け部 錫メッキ 1.0マイクロメートル以上 TAIL TIN 1.0 MICROMETER MINIMUM
- ニッケル下地 1.0マイクロメートル以上 NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM
- 金具 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

2. 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.

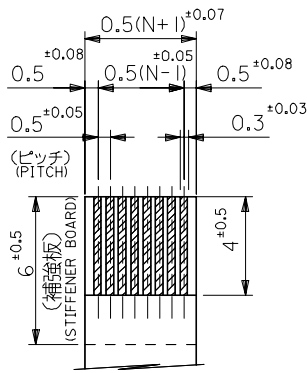
- △偶数極に適用。 APPLY FOR EVEN CIRCUIT.
- △パターンはくり止め用金具。 FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.
- △R0.3は、FPCの導体部にかからないこと。 R0.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.

MODEL NO. 52559-\*\*79

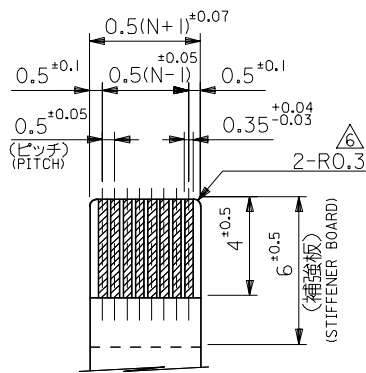
RELEASED EC NO: J2005-0174 DRAWN: MNABE1 2004/07/14 CHKD: KTOJO 2004/07/14 APPR: NUKITA 2004/07/14 REV: 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	10 UNDER	±0.2	DRAWN BY MNABE1	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF.			
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13	-LEAD FREE-			
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '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	



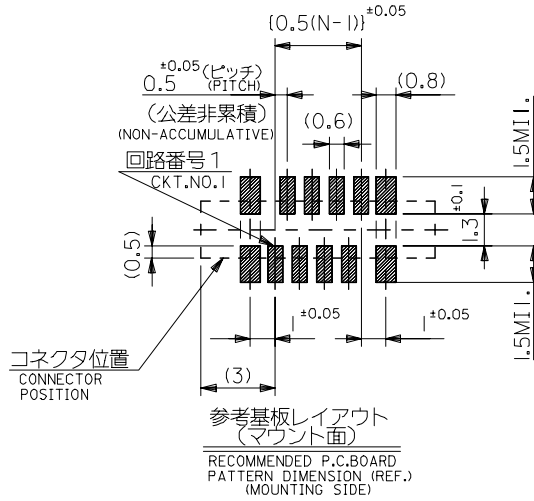
下面図  
BOTTOM VIEW



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>)

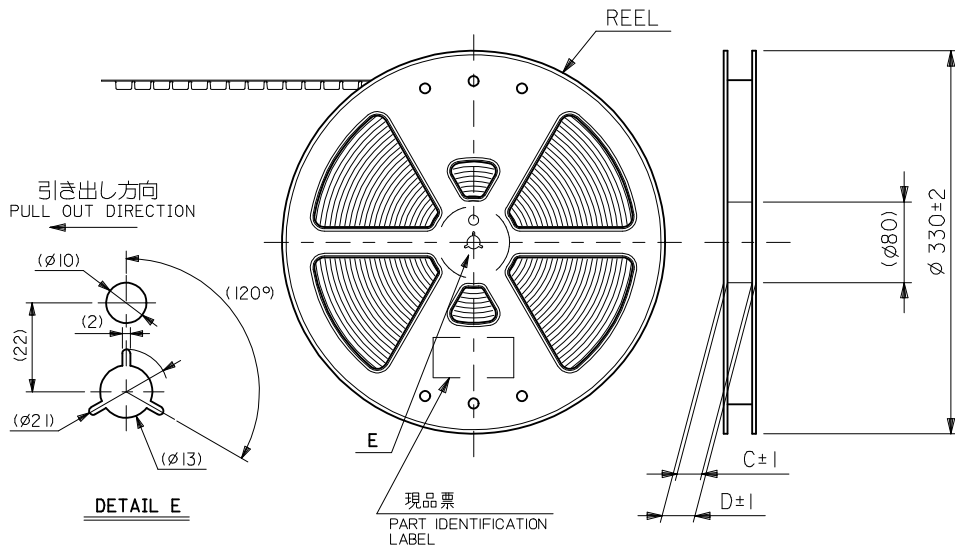


FPCについて:  
打抜き方向は導体側から補強板側を推奨致します。  
補強フィルム材質はポリイミドを推奨致します。  
接着剤は熱硬化接着剤を推奨致します。

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

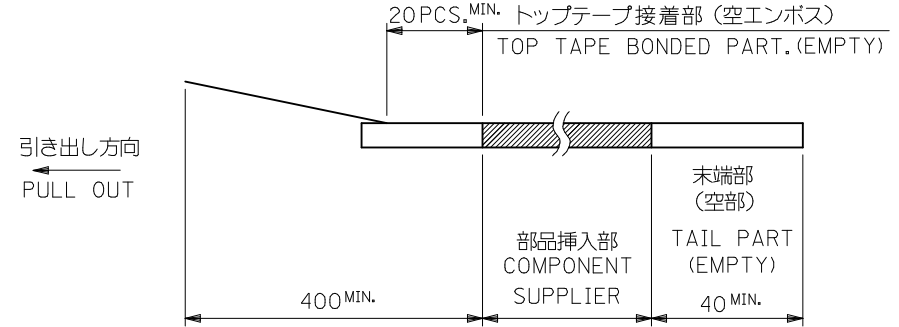
25.7	24.9	20.65	19.5	52559-4079	40
23.7	22.9	18.65	17.5	-3679	36
22.2	21.4	17.15	16.0	-3379	33
21.7	20.9	16.65	15.5	-3279	32
21.2	20.4	16.15	15.0	-3179	31
20.7	19.9	15.65	14.5	-3079	30
20.2	19.4	15.15	14.0	-2979	29
19.7	18.9	14.65	13.5	-2879	28
19.2	18.4	14.15	13.0	-2779	27
18.7	17.9	13.65	12.5	-2679	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 (EXT.)

RELEASED EC NO: J2005-0174 DRAWN: MNABE 2004/07/14 CHKD: KTOJO 2004/07/14 APPR: NUKITA 2004/07/14 REV: 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	MODEL NO. DESIGN UNITS METRIC	52559-**79
	10 UNDER	±0.2	DRAWN BY MNABE1	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF.		
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13	-LEAD FREE-		
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	MOLEX INCORPORATED		
	ANGULAR	±3 °	MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SD-52559-048		2 OF 2	
SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

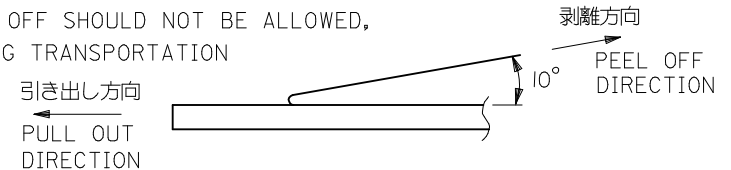


注記 NOTES

- 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



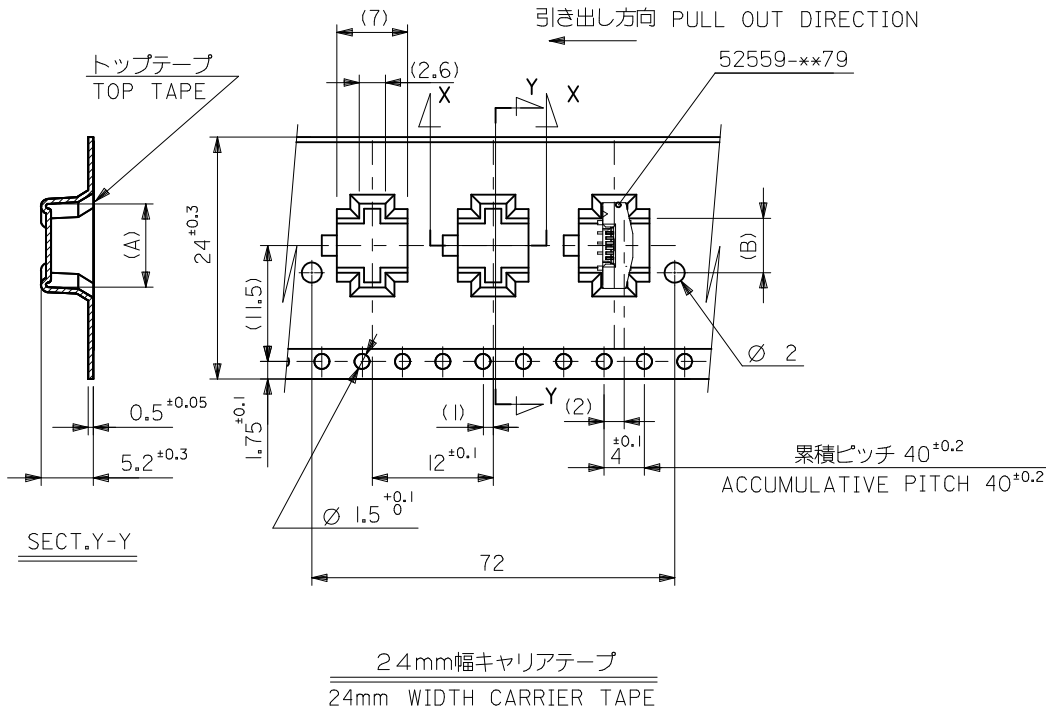
5. 材料 キャリアテープ：ポリプロピレン (PP)  
 トップテープ：PET, PE, PEF  
 リール：ポリスチレン (PS) <リサイクル材を含む>

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.

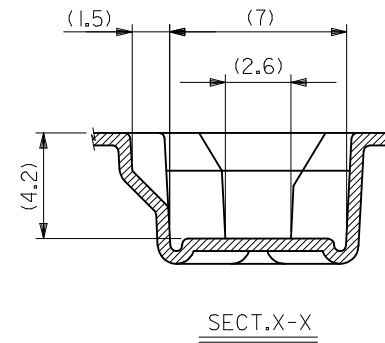
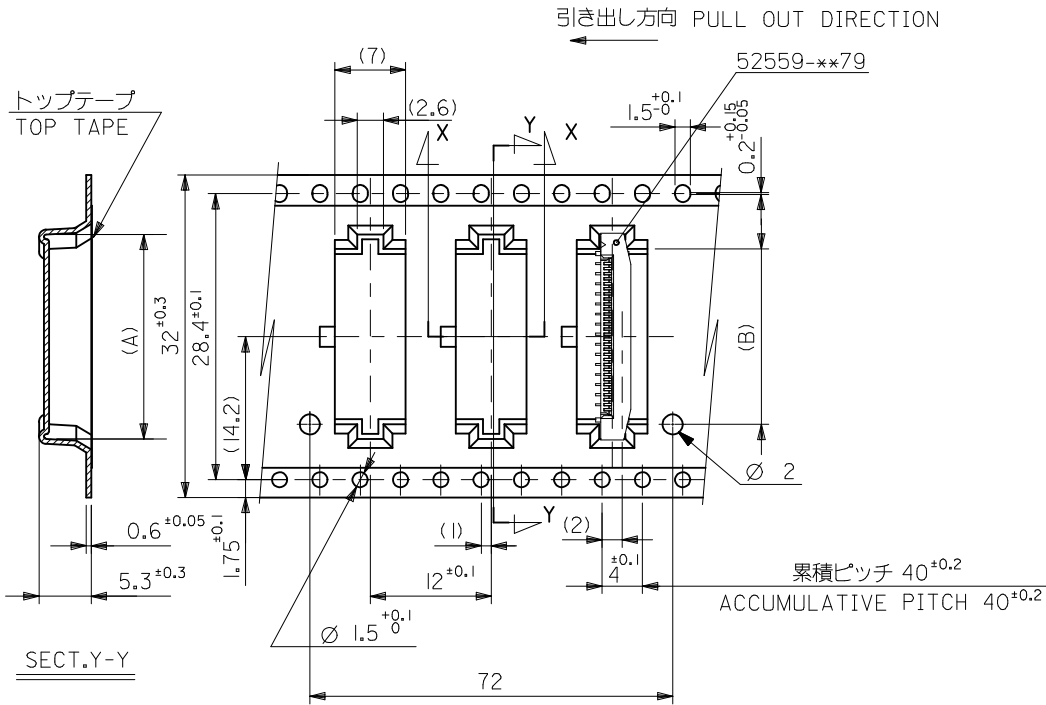
7. 本製品は乾燥剤入り、ハイバリア梱包仕様である。  
 THIS PRODUCT IS HIGH BARRIER PACKAGE WITH DESICCANT.

REVISED EC NO: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	52559-**52	MODEL NO.
		10 UNDER ±0.2		DRAWN BY MNABEI	DATE '04/07/13	TITLE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		10 OVER 30 UNDER ±0.25		CHECKED BY KTOJO	DATE '04/07/13	0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE- MOLEX INCORPORATED	DOCUMENT NO. SD-52559-049	SHEET NO. 1 OF 4
		30 OVER ±0.3		APPROVED BY NUKITA	DATE '04/07/13			
ANGULAR ±3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 2-4		MOLEX INCORPORATED		
SIZE A3		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 CARRIER TAPE WIDTH			D	C	(B)	(A)	MATERIAL NO.	CIRCUIT NO.

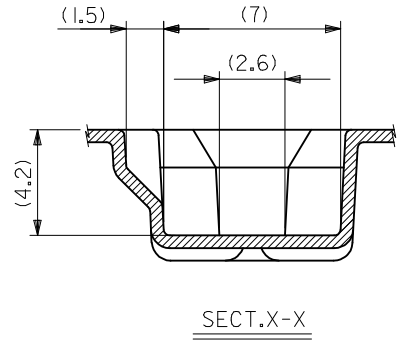
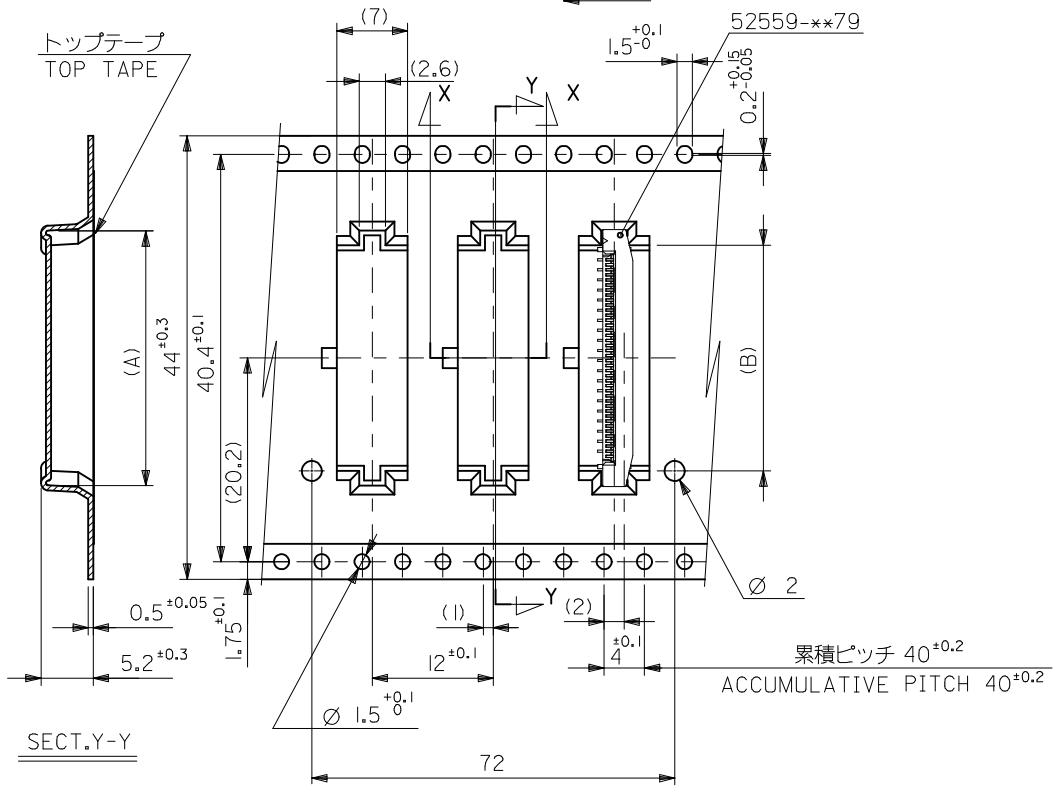
REVISED EC NO: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		52559-**-52 MODEL NO.	
	10 UNDER	±0.2	DRAWN BY MNABEI	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-	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



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 CARRIER TAPE WIDTH	D	C	(B)	(A)	MATERIAL NO.	CIRCUIT NO.

REVISED EC NO.: J2009-2061 DRWN:TKGN 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		52559-**52 MODEL NO.	
	10 UNDER	±0.2	DRAWN BY MNABEI	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE- MOLEX INCORPORATED			
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13				
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	DOCUMENT NO. SD-52559-049		SHEET NO. 3 OF 4	
ANGULAR ±3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		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 CARRIER TAPE WIDTH	D	C	(B)	(A)	MATERIAL NO.	CIRCUIT NO.

REVISED EC NO.: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		52559-**-52 MODEL NO.	
	10 UNDER	±0.2	DRAWN BY MNABEI	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-			
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ANGULAR ±3 °		MATERIAL NO. SEE TABLE		DOCUMENT NO.				
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