

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

**Part Number:** [0514411272](#)  
**Status:** **Active**  
**Description:** 0.50mm (.020") Pitch Easy-On™ Type FFC/FPC Connector, Right Angle, SMT, ZIF, Bottom Contact Style, 1.10mm (.043") Mated Height, 12 Circuits, Lead-free, Selective Gold (Au) Contact Plating

**Documents:**

[3D Model](#) [Product Specification PS-51441-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family FFC/FPC Connectors  
 Series [51441](#)  
 Product Name Easy-On™

**Physical**

Circuits (Loaded) 12  
 Circuits (maximum) 12  
 Color - Resin Black, Natural  
 Contact Position Bottom  
 Durability (mating cycles max) 20  
 Entry Angle 90° Angle  
 Mated Height (in) 0.043 In  
 Mated Height (mm) 1.10 mm  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Gold  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Right Angle  
 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  
 Pitch - Term. Interface (in) 0.020 In  
 Pitch - Term. Interface (mm) 0.50 mm  
 Plating min: Mating (µin) 4  
 Plating min: Mating (µm) 0.1  
 Plating min: Termination (µin) 2  
 Plating min: Termination (µm) 0.05  
 Polarized to PCB No  
 Stackable No  
 Surface Mount Compatible (SMC) Yes  
 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**

Product Specification PS-51441-006, RPS-51441-015, RPS-51441-021, RPS-51441-024, RPS-51441-025, RPS-51441-030

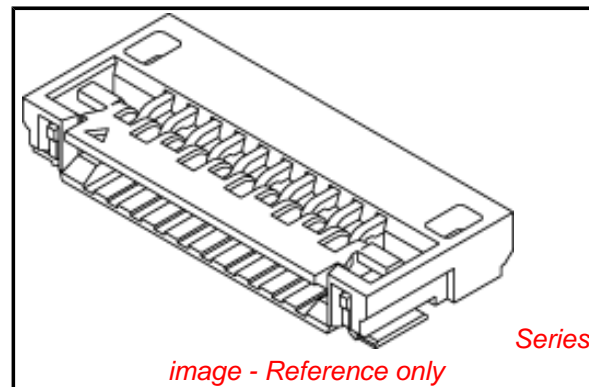


image - Reference only

**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.

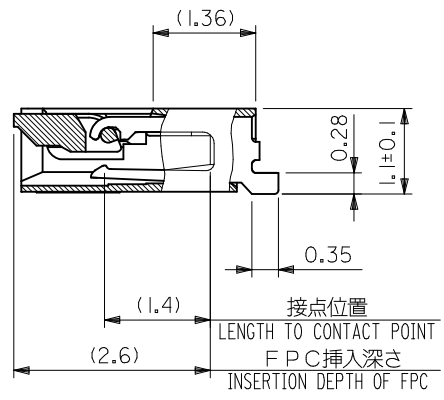
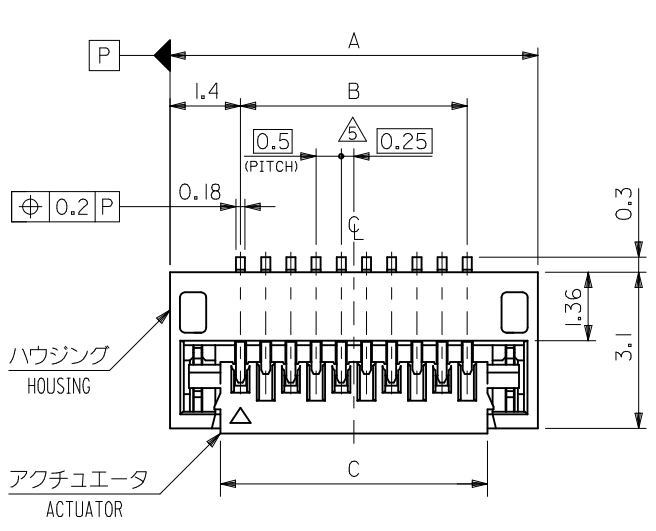
**Search Parts in this Series**

51441Series

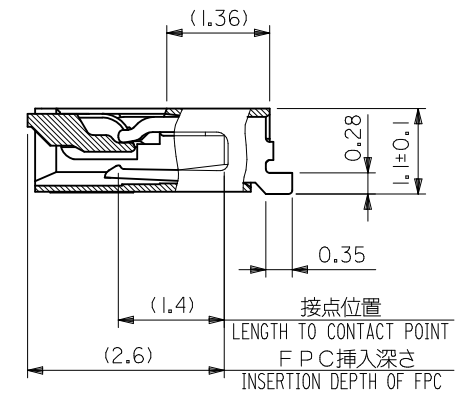
This document was generated on 04/15/2010

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

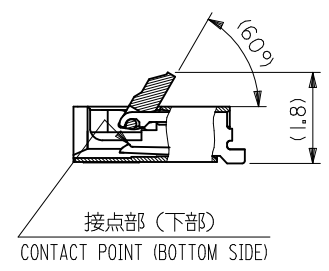
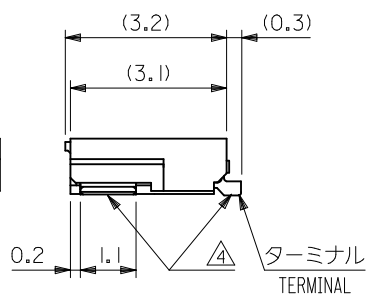
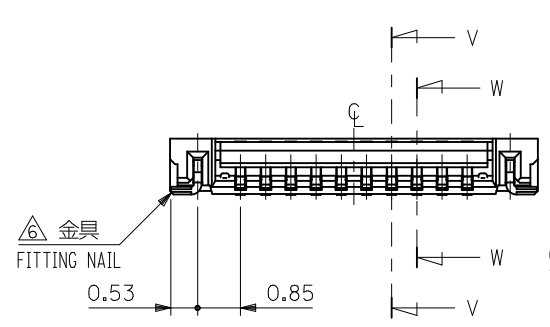
10 9 8 7 6 5 4 3 2 1



断面 V-V 奇数極  
SECT. V-V (ODD CKT)



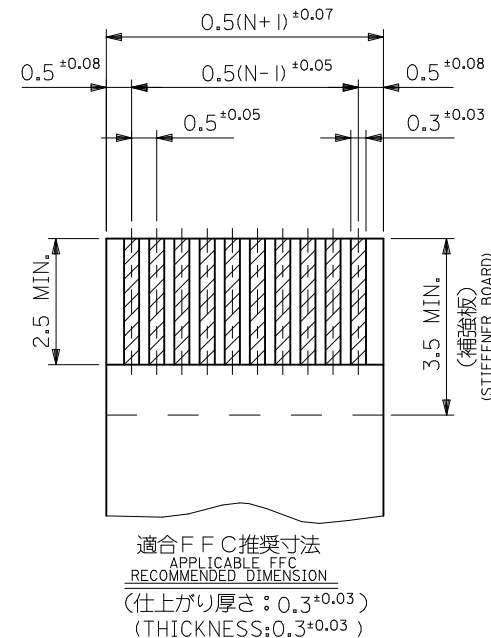
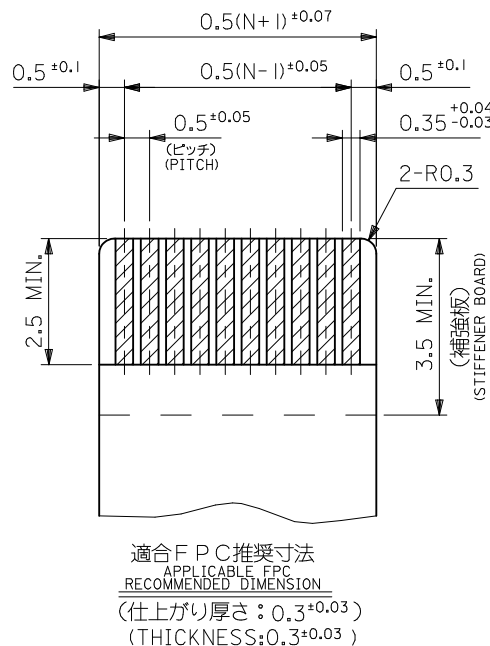
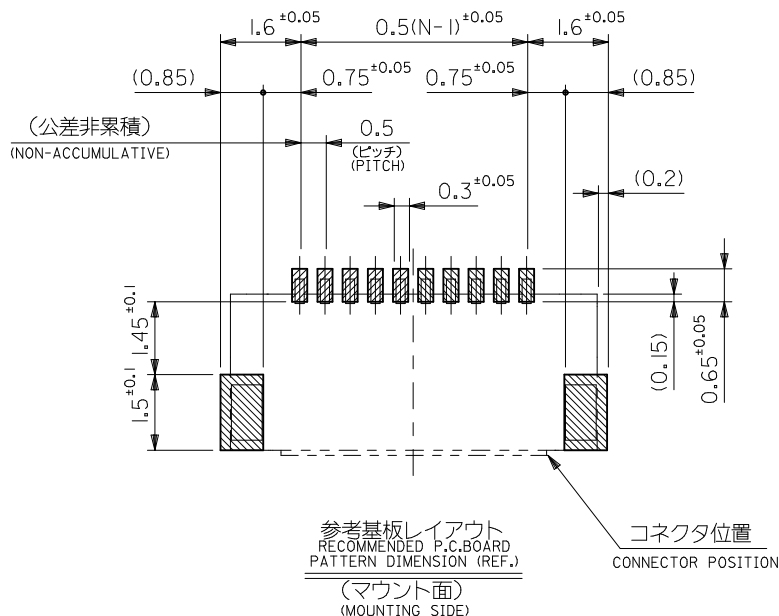
断面 W-W 偶数極  
SECT. W-W (EVEN CKT)



(アクチュエータが開いた状態)  
(WHEN ACTUATOR IS OPENED)

12.3	11.5	14.3	51441-2472	24
11.3	10.5	13.3	51441-2272	22
10.3	9.5	12.3	51441-2072	20
6.3	5.5	8.3	51441-1272	12
5.8	5.0	7.8	51441-1172	11
5.3	4.5	7.3	51441-1072	10
4.3	3.5	6.3	51441-0872	8
C	B	A	EMBOSSED TAPE	極数
			ORDER No. オーダー番号	CIRCUIT
CONNECTOR SERIES NO. 51441-**28				

REVISED EC NO: J2010-1656 DRWN: TONO 2010/02/15 CHKD: SHIMOMIYAMA 2010/02/15 APPR: KMORIKAWA 2010/02/15	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 10:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		10 UNDER	±0.2	DRAWN BY M. NABEI	DATE '05/06/29	TITLE 0.5 FPC CONN. (E/O) HSG ASSY BTM CONT(H=1.1)			
		10 OVER 30 UNDER	±0.25	CHECKED BY K. TOYODA	DATE '05/06/29	MOLEX INCORPORATED			
		30 OVER	±0.3	APPROVED BY N. UKITA	DATE '05/06/29				
		ANGULAR ±3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-51441-012	SHEET NO. 1 OF 2			



注記 NOTES

1. 使用材料 MATERIAL

ハウジング : 液晶ポリマー ガラス充填, UL94V-0 (ベージュ)  
HOUSING LIQUID CRYSTAL POLYMER GLASS FILLED, UL94V-0(BEIGE)  
アクチュエータ: ポリフェニレンサルファイド ガラス充填, UL94V-0 (黒)  
ACTUATOR POLYPHENYLENE SULFIDE GLASS FILLED, UL94V-0(BLACK)  
ターミナル : リン青銅 (t=0.18)  
TERMINAL PHOSPOR BRONZE  
金具 : リン青銅 (t=0.15)  
FITTING NAIL PHOSPOR BRONZE

2. メッキ仕様 PLATING

ターミナル TERMINAL  
ニッケル下地金メッキ  
GOLD OVER NICKEL PLATING  
金具 FITTING NAIL  
ニッケル下地金メッキ  
TIN OVER NICKEL PLATING

3. エンボステープ梱包時は、アクチュエータが閉じた状態とする。  
IN THE PACKAGE, ACTUATOR OF PART NO.51441-\*\*-II SHOULD BE CLOSED.
- △ソルダータール及び金具の平坦度は、0.1以下。  
SOLDER TAIL AND FITTING NAIL COPLANARITY TO BE 0.1 MAXIMUM.
- △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 PCB PATTERN.
7. 本製品は 51441-\*\*-29 の部分金メッキ品である。  
THIS PRODUCT IS SELECTIVE GOLD OF 51441-\*\*-29.
8. ELV AND RoHS COMPLIANT.

FPC/FFCについて:

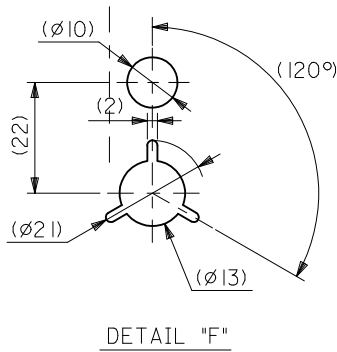
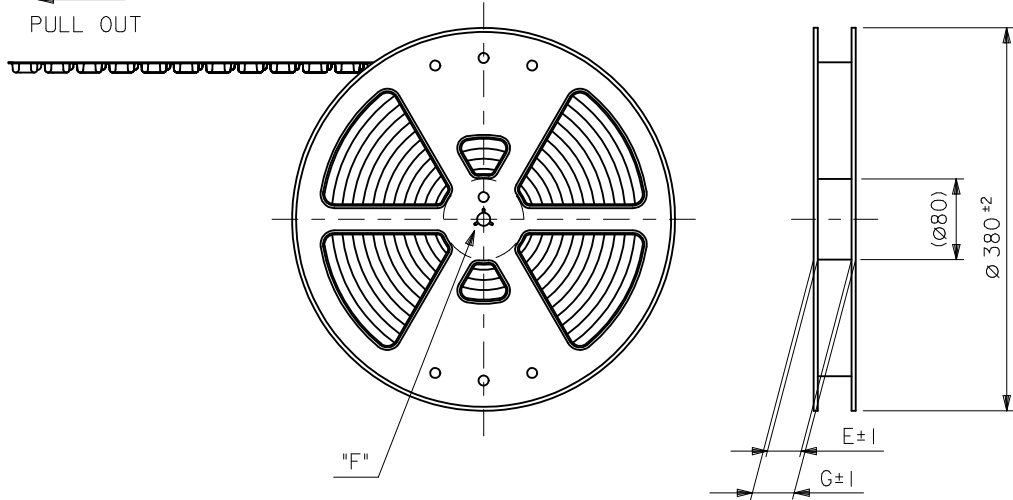
打抜き方向は導体側から補強板側を推奨いたします。  
導体部については軟銅箔35マイクロメートルまたは50マイクロメートルを推奨いたします。  
ABOUT FPC/FFC  
RECOMMENDED PUNCHER DIRECTION : FROM CONDUCTOR SIDE TO STIFFENER FILM SIDE.  
RECOMMENDED CONDUCTOR SPEC :  
THICKNESS OF SOFT COPPER FOIL : 35 MICROMETER OR 50 MICROMETER

FPCについて:

補強フィルム材質はポリイミドを推奨します。  
接着剤は熱硬化接着剤を推奨します。  
ABOUT FPC  
RECOMMENDED MATERIAL :  
STIFFENER FILM : POLYIMIDE  
BONDING AGENT : THERMOSETTING BONDING AGENT

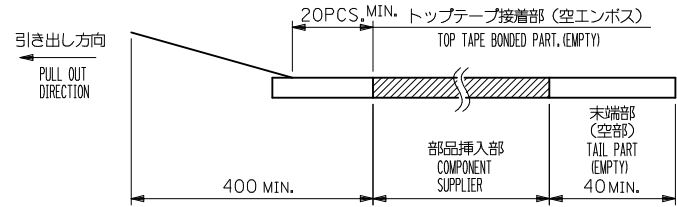
REVISED EC NO: J2010-1656 DRWN: TONO 2010/02/15 CHKD: HSHIMOIYAMA 2010/02/15 APPR: KMORIKAWA 2010/02/15	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 10:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		10 UNDER	±0.2	DRAWN BY M. NABEI	DATE '05/06/29	TITLE 0.5 FPC CONN. (E/O) HSG ASSY BTM CONT(H=1.1)			
		10 OVER 30 UNDER	±0.25	CHECKED BY K. TOYODA	DATE '05/06/29	MOLEX INCORPORATED			
		30 OVER	±0.3	APPROVED BY N. UKITA	DATE '05/06/29	DOCUMENT NO. SD-51441-012			
		ANGULAR ±3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 1		SHEET NO. 2 OF 2		
		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

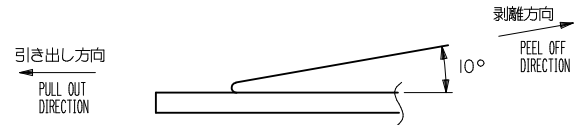


注記 NOTES

- 製品詳細寸法については、図面 SD-51441-012 を参照下さい。  
RE DETAILED DIMENSION, SEE SD-51441-012.
- 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



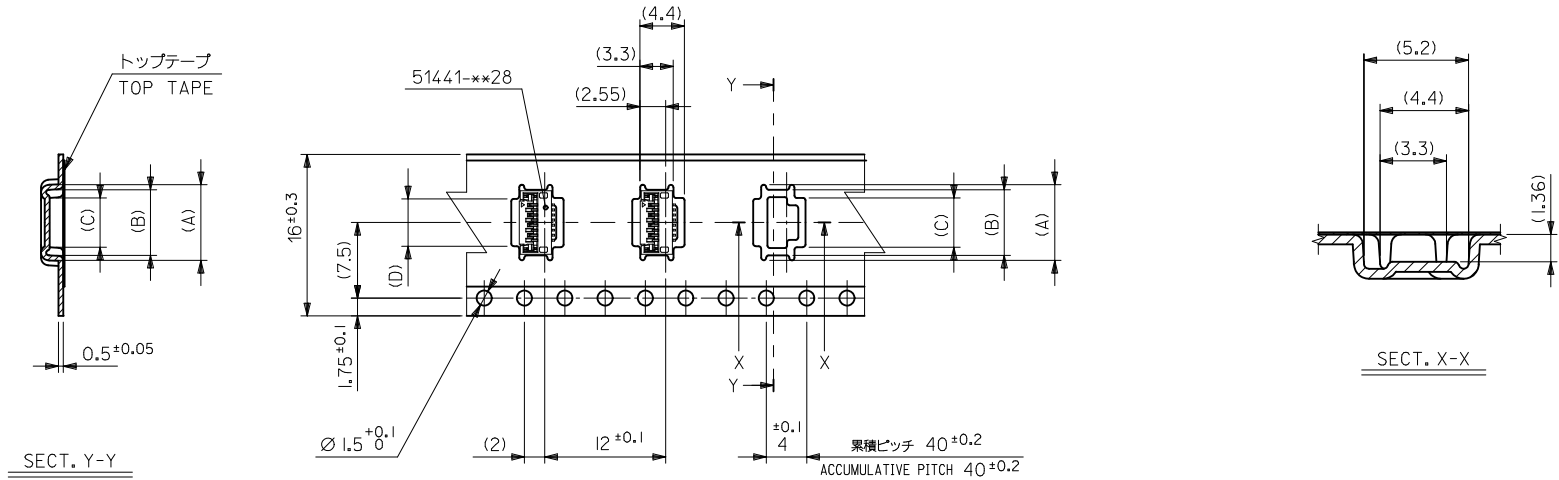
- トップテープの剥離強度：0.1~1.3N(10~130gf)  
(剥離方向は下図参照)  
尚、本規格値は出荷時に適用。(但し、輸送時に剥離が発生しないこと。)  
PEELING OFF FORCE OF TOP TAPE : 0.1~1.3N(10~130gf)  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIG.)  
THIS REQUIREMENT SHOULD BE APPLIED AT SHIPMENT.  
PEEL OFF SHOULD NOT BE ALLOWED, DURING TRANSPORTATION.



- 材料 (MATERIAL)  
キャリアテープ (CARRIER TAPE)：ポリプロピレン (POLYPROPYLENE)  
トップテープ (TOP TAPE)：PET, PE, PEF  
リール (REEL)：ポリスチレン (PS) <リサイクル材を含む>  
POLYSTYRENE(PS) <RECYCLE MATERIAL CONTAINED>
- 本製品は 51441-\*\*-71 の部分金メッキ品である。  
THIS PRODUCT IS SELECTIVE GOLD OF 51441-\*\*-71.
- ELV AND RoHS COMPLIANT.

REVISED EC NO: J2010-1656 DRWN: TONO 2010/02/15 CHKD: SHIMOMIYAMA 2010/02/15 APPR: KMORIKAWA 2010/02/15	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	10 UNDER	± 0.2	DRAWN BY M. NABEI	DATE '05/06/29	TITLE EMBSTP PKG FOR 0.5 FPC CONN E/O BTM CONT			
	10 OVER 30 UNDER	± 0.25	CHECKED BY K. TOYODA	DATE '05/06/29	MOLEX INCORPORATED			
	30 OVER	± 0.3	APPROVED BY N. UKITA	DATE '05/06/29				
ANGULAR	± 3 °	MATERIAL NO. SEE SHEET 2 OR 3	DOCUMENT NO. SD-51441-013		SHEET NO. 1 OF 3			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

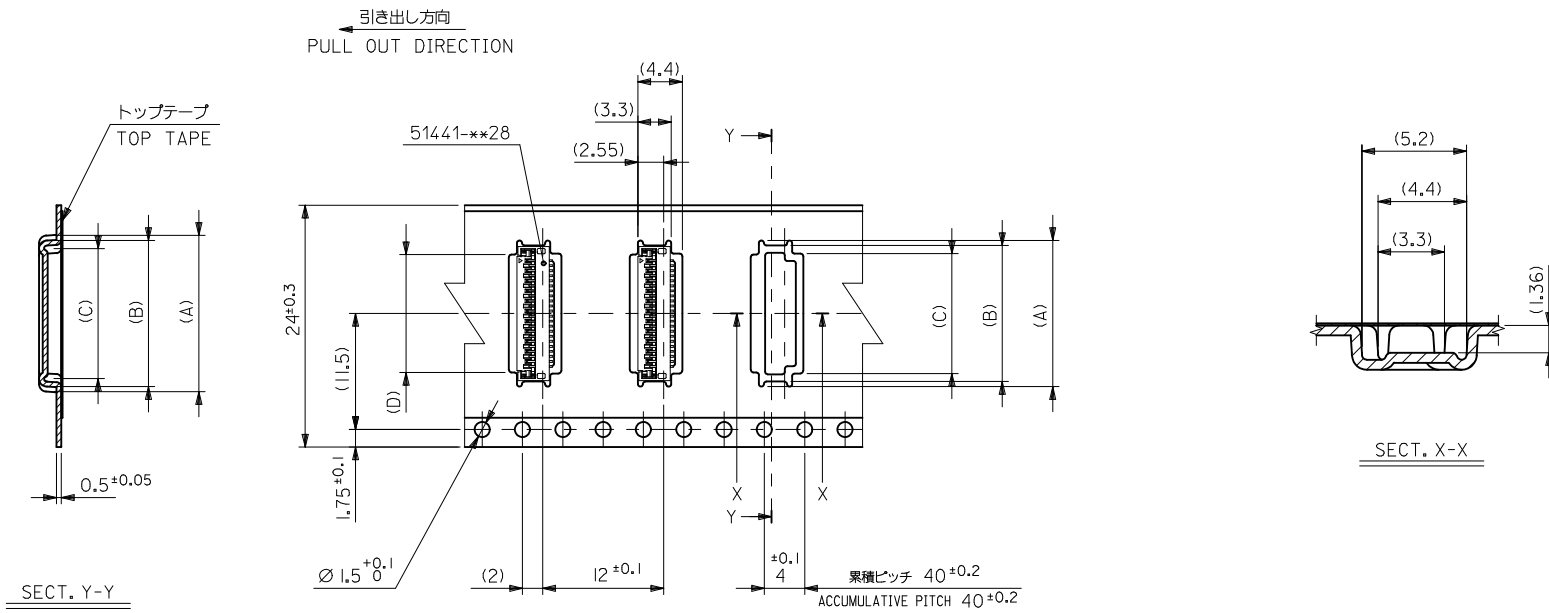
引き出し方向  
PULL OUT DIRECTION



16 mm幅キャリアテープ  
16mm WIDTH CARRIER TAPE

16	21.4	17.4	4.7	4.89	6.5	7.5	51441-0872	8
キャリアテープ幅 CARRIER TAPE WIDTH	G	E	(D)	(C)	(B)	(A)	製品番号 MATERIAL NO.	種数 CIRCUIT

REVISED EC NO: J2010-1656 DRWN: TONO 2010/02/15 CHKD: SHIMOMIYAMA 2010/02/15 APPR: KMORI KAWA 2010/02/15	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		DESIGN UNITS METRIC		THIRD ANGLE PROJECTION	
	10 UNDER	±0.2	DRAWN BY M. NABEI	DATE '05/06/29	TITLE EMBSTP PKG FOR 0.5 FPC CONN E/O BTM CONT					
	10 OVER 30 UNDER	±0.25	CHECKED BY K. TOYODA	DATE '05/06/29	MOLEX INCORPORATED					
	30 OVER	±0.3	APPROVED BY N. UKITA	DATE '05/06/29	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-51441-013		SHEET NO. 2 OF 3	
REV	ANGULAR ±3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							



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

24	29.4	25.4	12.7	12.89	14.5	15.5	51441-2472	24
			11.7	11.89	13.5	14.5	51441-2272	22
			10.7	10.89	12.5	13.5	51441-2072	20
			6.7	6.89	8.5	9.5	51441-1272	12
			6.2	6.39	8.0	9.0	51441-1172	11
			5.7	5.89	7.5	8.5	51441-1072	10
キャリアテープ幅 CARRIER TAPE WIDTH	G	E	(D)	(C)	(B)	(A)	製品番号 MATERIAL NO.	種数 CIRCUIT

REVISED EC NO: J2010-1656 DRWN: TONO 2010/02/15 CHKD: SHIHOYAMA 2010/02/15 APPR: KMORIKAWA 2010/02/15	DESCRIPTION GENERAL TOLERANCES (UNLESS SPECIFIED)	10 UNDER ±0.2		DRAWN BY M. NABEI DATE '05/06/29		TITLE EMBSTP PKG FOR 0.5 FPC CONN E/O BTM CONT			
		10 OVER 30 UNDER ±0.25		CHECKED BY K. TOYODA DATE '05/06/29		MOLEX INCORPORATED SD-51441-013			
		30 OVER ±0.3		APPROVED BY N. UKITA DATE '05/06/29					
		ANGULAR ±3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-51441-013 SHEET NO. 3 OF 3	
						SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	