



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



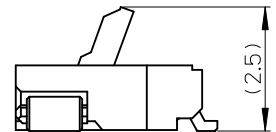
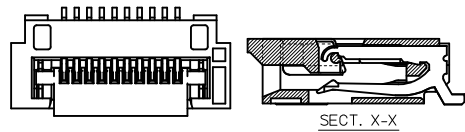
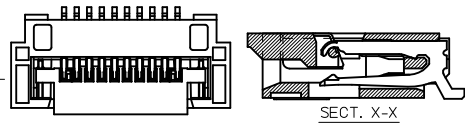
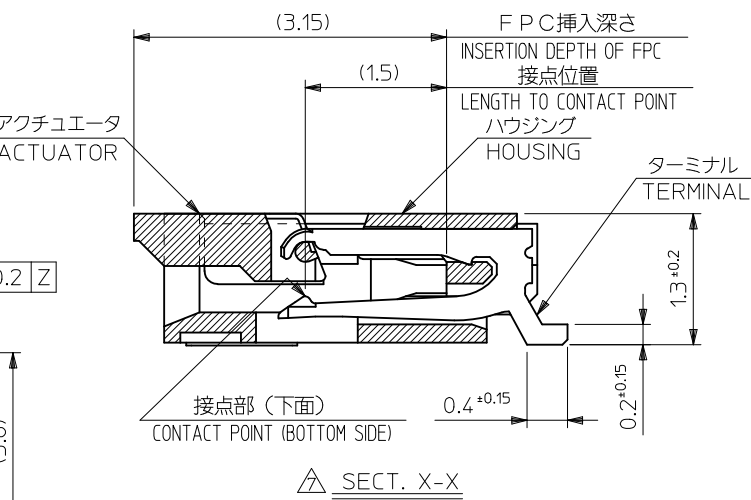
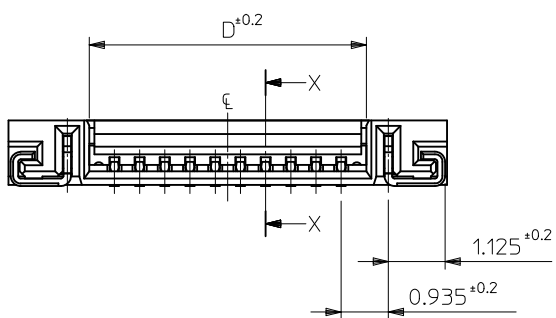
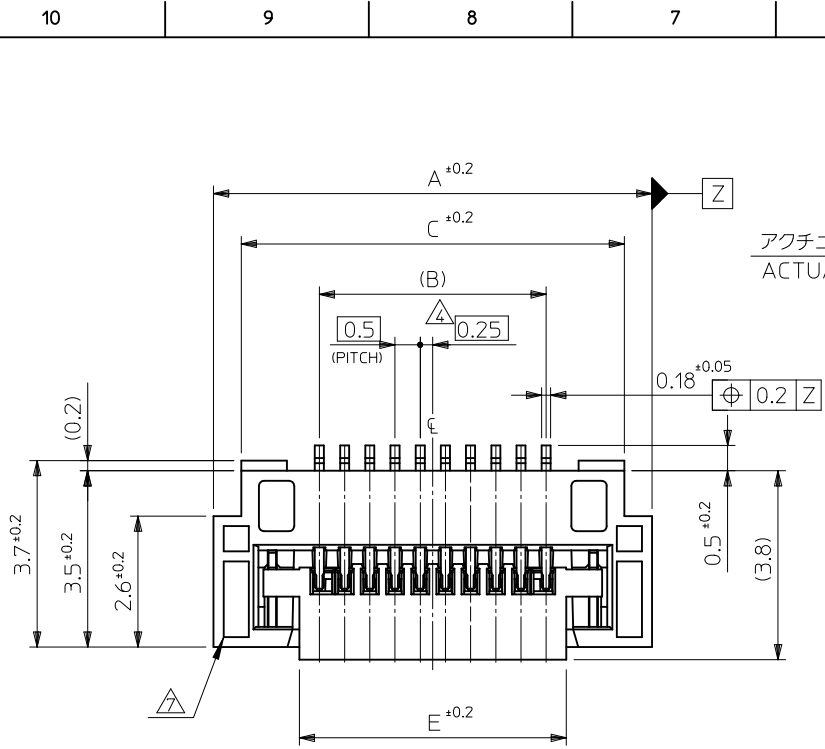
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Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

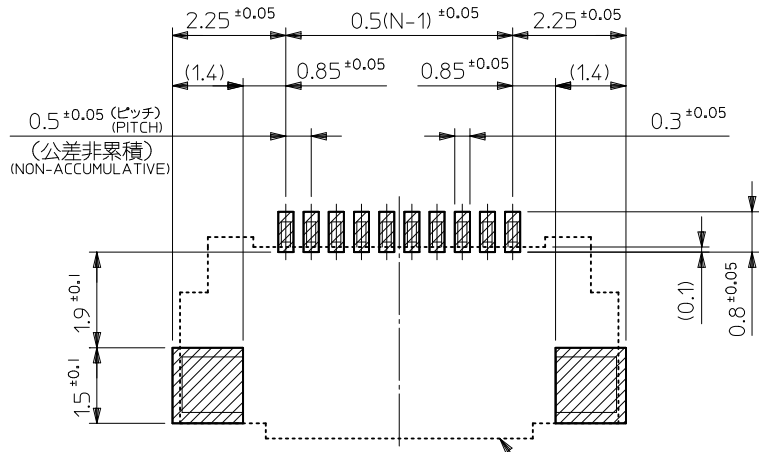




(アクチュエータが開いた状態)
(WHEN ACTUATOR IS OPENED)

30.3	30.5	32.6	29.5	33.7	51296-6093	51296-6041	60
25.3	25.5	27.6	24.5	28.7	51296-5093	4 -5041	50
22.8	23.0	25.1	22.0	26.2	51296-4593	4 -4541	45
20.3	20.5	22.6	19.5	23.7	51296-4093	-4041	40
17.3	17.5	19.6	16.5	20.7	51296-3493	-3441	34
9.3	9.5	11.6	8.5	12.7	51296-1893	-1841	18
7.3	7.5	9.6	6.5	10.7	51296-1493	7 -1441	14
6.3	6.5	8.6	5.5	9.7	51296-1293	7 -1241	12
4.3	4.5	6.6	3.5	7.7	51296-0893	51296-0841	8
E	D	C	B	A	EMBOSSED TAPE	製品番号	極数
					ORDER No. オーダー番号	MATERIAL No.	Ckt

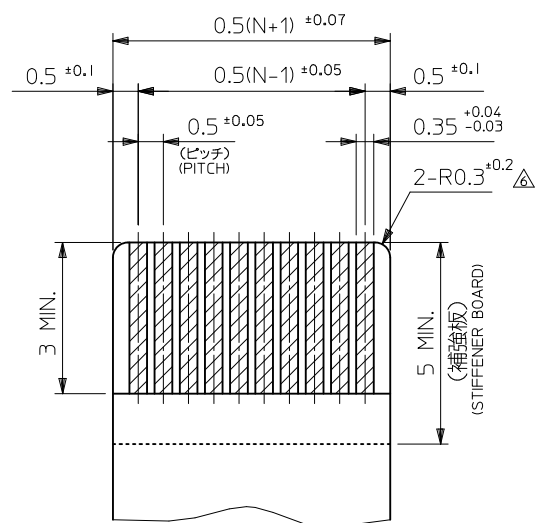
REVISED EC NO: J2011-0996 DRWN: K.MURAKAMI 2010/11/01 CHKD: APPR: K.MORIKAWA 2011/02/15	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY K. MURAKAMI	DATE 2004/02/06	TITLE 0.5 FPC CONN EASY ON HGT=1.3MM ASSY -LEAD FREE-		
	10 OVER 30 UNDER	± ---	CHECKED BY S. AIHARA	DATE 2004/02/06	MOLEX INCORPORATED		
	30 OVER	± ---	APPROVED BY M. SASAO	DATE 2004/02/06	DOCUMENT NO. SD-51296-007	SHEET NO. 1 OF 2	
	ANGULAR ± --- °	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						



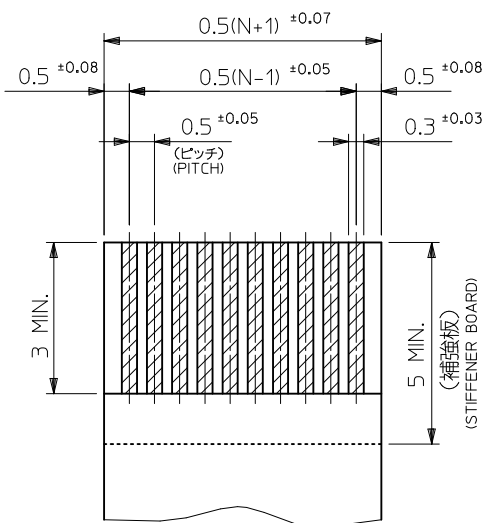
0.5 ±0.05 (ピッチ)
(公差非累積)
(NON-ACCUMULATIVE)

コネクタ位置
CONNECTOR POSITION

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



適合FPC推奨寸法
APPLICABLE FPC
RECOMMENDED DIMENSION
(仕上がり厚さ: 0.3 ±0.05)
(THICKNESS: 0.3 ±0.05)



適合FFC推奨寸法
APPLICABLE FFC
RECOMMENDED DIMENSION
(仕上がり厚さ: 0.3 ±0.05)
(THICKNESS: 0.3 ±0.05)

注記 NOTES

- 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 : ポリアミド9T ガラス充填, UL94V-0 (黒)
ACTUATOR POLYAMIDE 9T 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
- メッキ仕様 PLATING
 - ターミナル TERMINAL
 - 錫ビスマスメッキ 1.0マイクロメートル以上
 - ニッケル下地 1.0マイクロメートル以上
 - TIN-BISMUTH (Sn-Bi) 1.0 MICROMETER MINIMUM
 - OVER NICKEL PLATING 1.0 MICROMETER MINIMUM
 - 金具 FITTING NAIL
 - 錫メッキ 1.0マイクロメートル以上
 - ニッケル下地 1.0マイクロメートル以上
 - TIN (Sn) 1.0 MICROMETER MINIMUM
 - OVER NICKEL (Ni) PLATING 1.0 MICROMETER MINIMUM

- 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.51296-***41 SHOULD BE CLOSED.
- 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.
- R0.3は、FPC導体部にかからないこと。
R0.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.
- 極数によりハウジング形状が異なるので注意のこと。
THE HOUSING SHAPE IS DIFFERENT ACCORDING TO THE CIRCUIT.
- 本製品は51296-***31の鉛フリー製品である。
THIS PRODUCT IS LEAD FREE OF 51296-***31.

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致します。
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

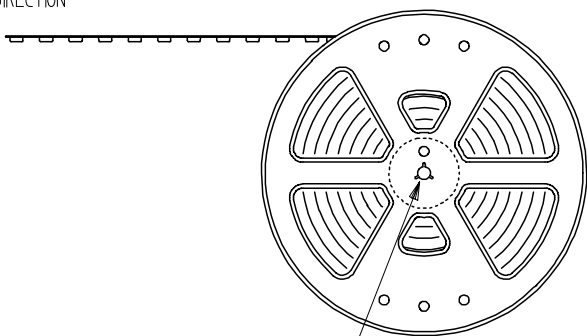
FPCについて:

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

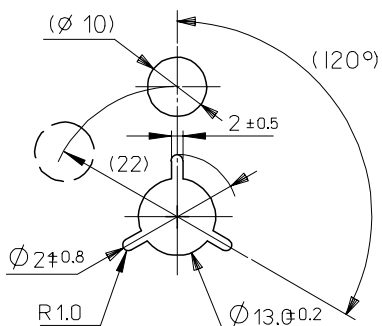
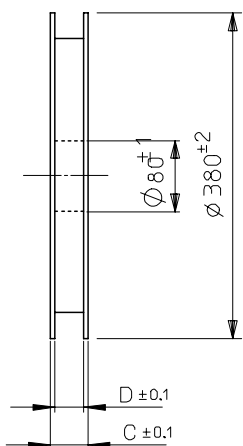
MODEL No. 51296-***41

REVISED EC NO: J2011-0996 DRAWN: K.MURAKAMI 2010/11/01 CHKD: APPR: K.MORIKAWA 2011/02/15	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY K. MURAKAMI	DATE 2004/02/06	TITLE 0.5 FPC CONN EASY ON HGT=1.3MM ASSY -LEAD FREE-	
	10 OVER 30 UNDER	± ---	CHECKED BY S. AIHARA	DATE 2004/02/06	MOLEX INCORPORATED	
	30 OVER	± ---	APPROVED BY M. SASAO	DATE 2004/02/06	DOCUMENT NO. SD-51296-007	SHEET NO. 2 OF 2
	ANGULAR ± --- °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	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



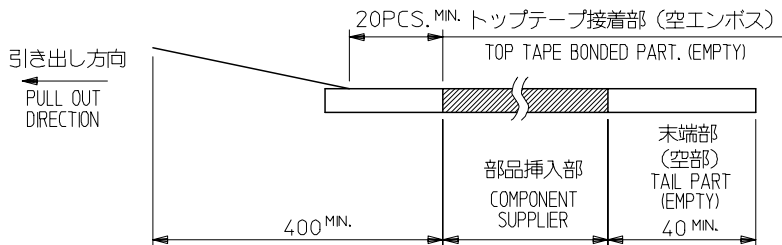
"Z"



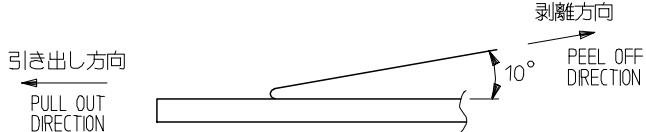
DETAIL "Z"

NOTES

- 製品詳細寸法については図面 SD-51296-007 を参照下さい。
RE DETAILED DIMENSION, SEE SD-51296-007
- 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 ~ 1.3N(10gf ~ 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：0.1N ~ 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.



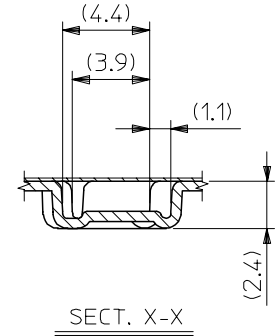
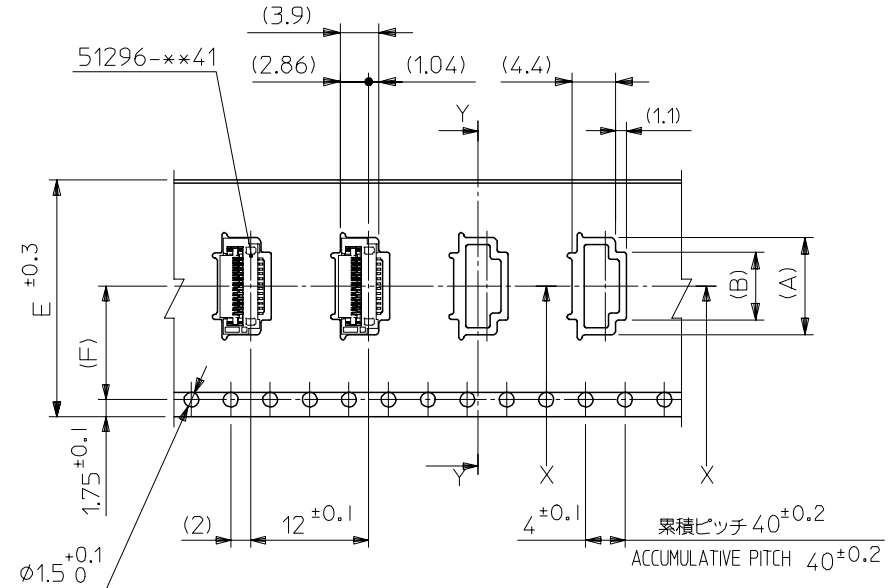
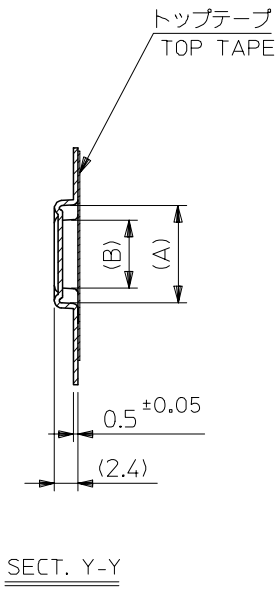
- 材料(MATERIAL)
キャリアテープ(CARRIER TAPE)：ポリプロピレン(POLYPROPYLENE)
トップテープ(TOPTAPE)：PET, PE, PEF
リール(REEL)：ポリスチレン(PS) <リサイクル材を含む>
POLYSTYRENE(PS) <RECYCLE MATERIAL CONTAINED>
- 本製品は、51296-**92 の鉛フリー製品である。
THIS PRODUCT IS LEAD FREE OF 51296-**92.

REVISED EC NO: J2005-1696 DRWN:KONURAKA 2004/12/08 CHKD: 2004/12/08 APPR:HIRATA 2004/12/14	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	51296-**93 DESIGN UNITS METRIC	MODEL NO. THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY K.MURAKAMI	DATE 2004/02/06	TITLE 0.5 FPC CONN EASY ON HGT=1.3MM EMBSTP PKG -LEAD FREE-		
	10 OVER 30 UNDER	± ---	CHECKED BY S.AIHARA	DATE 2004/02/06	MOLEX INCORPORATED		
	30 OVER	± ---	APPROVED BY M.SASAO	DATE 2004/02/06	DOCUMENT NO. SD-51296-008		
	ANGULAR ± --- °	MATERIAL NO. SEE CHART		SHEET NO. 1 OF 3			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

10 9 8 7 6 5 4 3 2 1

F
E
D
C
B
A

引き出し方向
PULL OUT DIRECTION



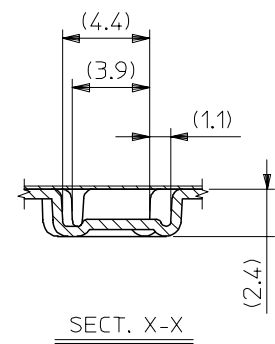
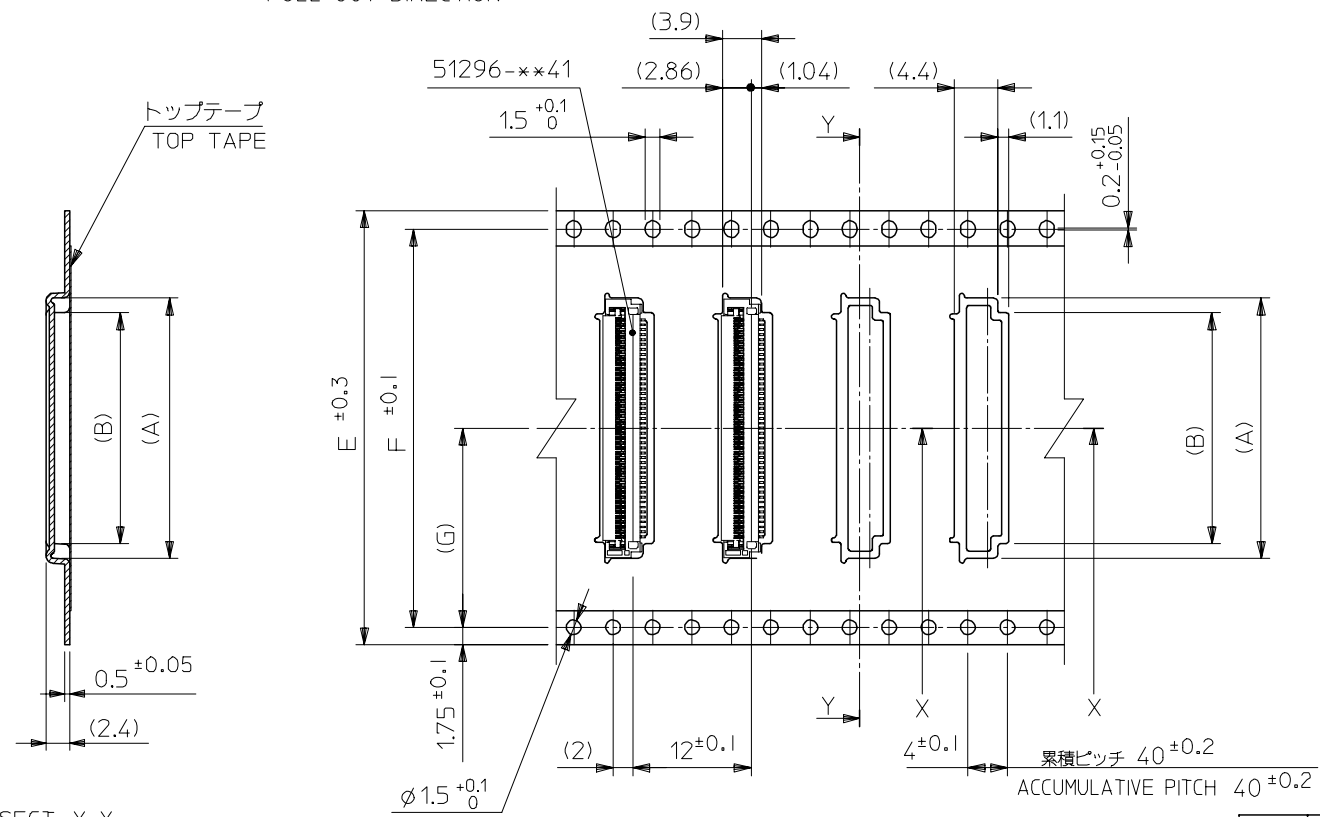
11.5	24	25.4	29.4	9.89	12.9	51296-1893	18
				7.89	10.9	51296-1493	14
				6.89	9.9	51296-1293	12
7.5	16	17.4	21.4	4.89	7.9	51296-0893	8
(F)	E	D	C	(B)	(A)	製品番号 MATERIAL No	極数 Ckt

REVISED EC NO: J2005-1696 DRAWN: KOMURAKA 2004/12/08 CHKD: 2004/12/08 APPR: HIRATA 2004/12/14	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY DATE K.MURAKAMI 2004/02/06		TITLE 0.5 FPC CONN EASY ON HGT=1.3MM EMBSTP PKG -LEAD FREE-		
	10 OVER 30 UNDER	± ---	CHECKED BY DATE S.AIHARA 2004/02/06		MOLEX INCORPORATED		
	30 OVER	± ---	APPROVED BY DATE M.SASAO 2004/02/06		DOCUMENT NO. SD-51296-008	SHEET NO. 2 OF 3	
	ANGULAR	± --- °	MATERIAL NO. SEE CHART				
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					

10 9 8 7 6 5 4 3 2 1

F
E
D
C
B
A

引き出し方向
PULL OUT DIRECTION

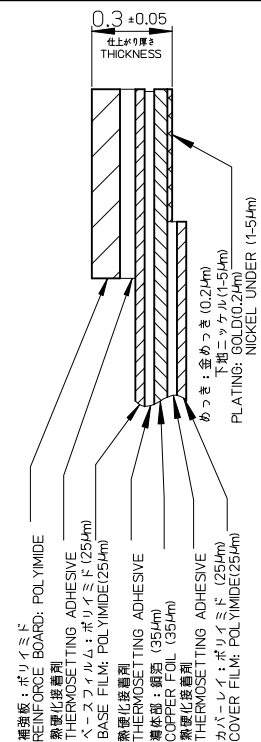
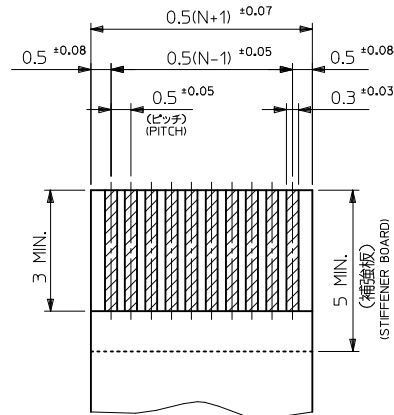
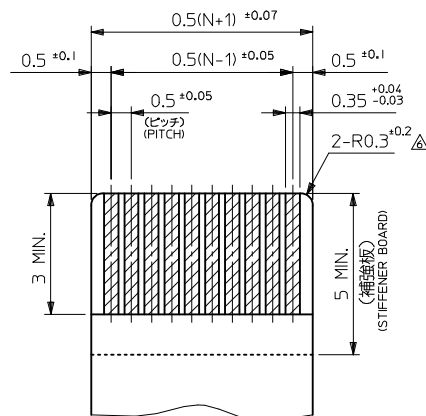
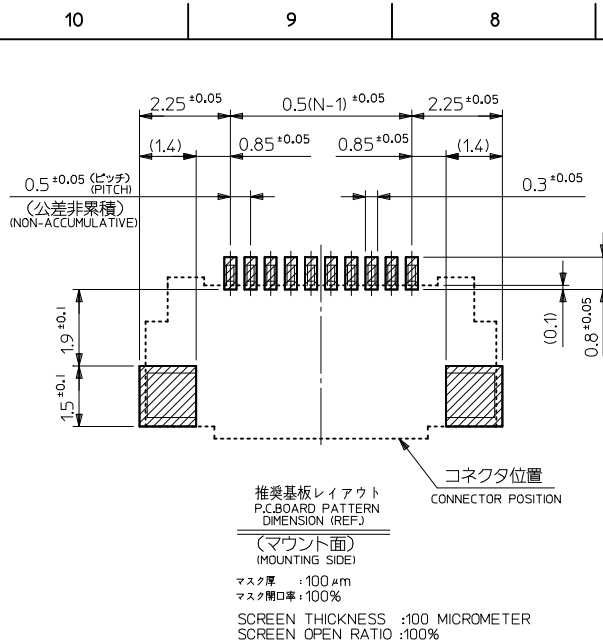


SECT. Y-Y

26.2	52.4	56	57.4	61.4	30.89	33.9	51296-6093	60
					25.89	28.9	51296-5093	50
20.2	40.4	44	45.4	49.4	23.39	26.4	51296-4593	45
					20.89	23.9	51296-4093	40
14.2	28.4	32	33.4	37.4	17.89	20.9	51296-3493	34
(G)	F	E	D	C	(B)	(A)	製品番号 MATERIAL No	極数 Ckt

REVISED EC NO: J2005-1696 DRAWN: KOMURAKA 2004/12/08 CHKD: 2004/12/08 APPR: HIRATA 2004/12/14	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY K.MURAKAMI	DATE 2004/02/06	TITLE 0.5 FPC CONN EASY ON HGT=1.3MM EMBSTP PKG -LEAD FREE-	
	10 OVER 30 UNDER	± ---	CHECKED BY S.AIHARA	DATE 2004/02/06	MOLEX INCORPORATED DOCUMENT NO. SD-51296-008 SHEET NO. 3 OF 3	
	30 OVER	± ---	APPROVED BY M.SASAO	DATE 2004/02/06		
	ANGULAR	± --- °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART	

9 8 7 6 5 4 3 2 EN-02JA(021)



注記 NOTES

1. 使用材料 MATERIAL

- ハウジング : 液晶ポリマー(LCP), ベージュ, ガラス充填, UL94V-0
HOUSING LIQUID CRYSTAL POLYMER, BEIGE, GLASS FILLED, UL94V-0
- アクチュエータ : ポリアミド(PPS), 黒, ガラス充填, UL94V-0
ACTUATOR POLYAMIDE, BLACK, GLASS FILLED, UL94V-0
- 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
 - 錫銀ビスマスマッキ (1.0 μm以上)
 - TIN SILVER BISMUTH PLATING (1.0 MICROMETER MINIMUM)
 - 下地 : ニッケルめっき(1.0 μm以上)
 - UNDER PLATING: NICKEL PLATING (1.0 MICROMETER MINIMUM)
- 金具 FITTING NAIL
 - 錫メッキ (1.0 μm以上)
 - TIN PLATING (1.0 MICROMETER MINIMUM)
 - 下地 : ニッケルめっき(1.0 μm以上)
 - UNDER PLATING: NICKEL PLATING (1.0 MICROMETER MINIMUM)

3. エンボステップ梱包時は、アクチュエータが閉じた状態とする。
IN THE PACKAGE, ACTUATOR SHOULD BE CLOSED.

△ 偶数極に適用。
APPLY FOR EVEN CIRCUIT.

△ パターンはくり止め用具
FITTING NAIL FOR PREVENTION OF PEELING OF PCB PATTERN.

△ R0.3は、FPC導体部にかからないこと。
R0.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.

△ 極数によりハウジング形状が異なるので注意のこと。
THE HOUSING SHAPE IS DIFFERENT ACCORDING TO THE CIRCUIT.

8. テール及び金具の平坦度は、0.1ミリメートル以下とする。
TAIL AND FITTING NAIL COPLANARITY TO BE 0.1 MILLIMETERS.

9. ELV及びRoHS適合品
ELV AND RoHS COMPLIANT

FPCについて:

- 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します。
- 尚、接着剤の接点部への付着は導通不良の原因になりますので、
- 染み出しが無い様お願い致します。

ABOUT FPC:

- RECOMMENDED PUNCHER DIRECTION:
FROM CONDUCTOR SIDE TO STIFFENER SIDE
- RECOMMENDED MATERIAL : STIFFENER FILM POLYIMIDE
- BONDING AGENT : THERMOSETTING AGENT
- PLEASE PUT APPROPRIATE AMOUNT OF ADHESIVE ON ADHEREND
- BECAUSE THERE IS A POSSIBILITY THAT THE EXTRA ADHESIVE
- CAUSES THE DEFECT IN ELECTRICAL CONTINUITY.

FFC/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。
- 導体部については軟銅箔35 μmまたは50 μmを推奨致します。

ABOUT FFC/FPC:

- RECOMMENDED PUNCHER DIRECTION:
FROM CONDUCTOR SIDE TO STIFFENER FILM SIDE.
- RECOMMENDED CONDUCTOR SPECIFICATION:
THICKNESS OF SOFT COPPER FOIL: 35MICROMETER OR 50 MICROMETER

FPC構成推奨仕様
STRUCTURE OF FPC

RELEASED EC NO: J2013-1133 DRWN: NAKANUMA 2013/04/10 CHKD: KAKAHASHI 2013/04/11 APPR: KMORIKAWA 2013/04/16	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		10 UNDER	± ---	DRAWN BY AISHII	DATE 2012/09/19	TITLE 0.5MM FPC CONN F/F E/O HOUSING ASSY			
		10 OVER 30 UNDER	± ---	CHECKED BY KTAKAHASHI	DATE 2012/09/19				
		30 OVER	± ---	APPROVED BY KMORIKAWA	DATE 2013/03/15				
A	REV	ANGULAR ± --- °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	MATERIAL NO. SEE SHEET1		DOCUMENT NO. SD-51296-017	SHEET NO. 2 OF 2	