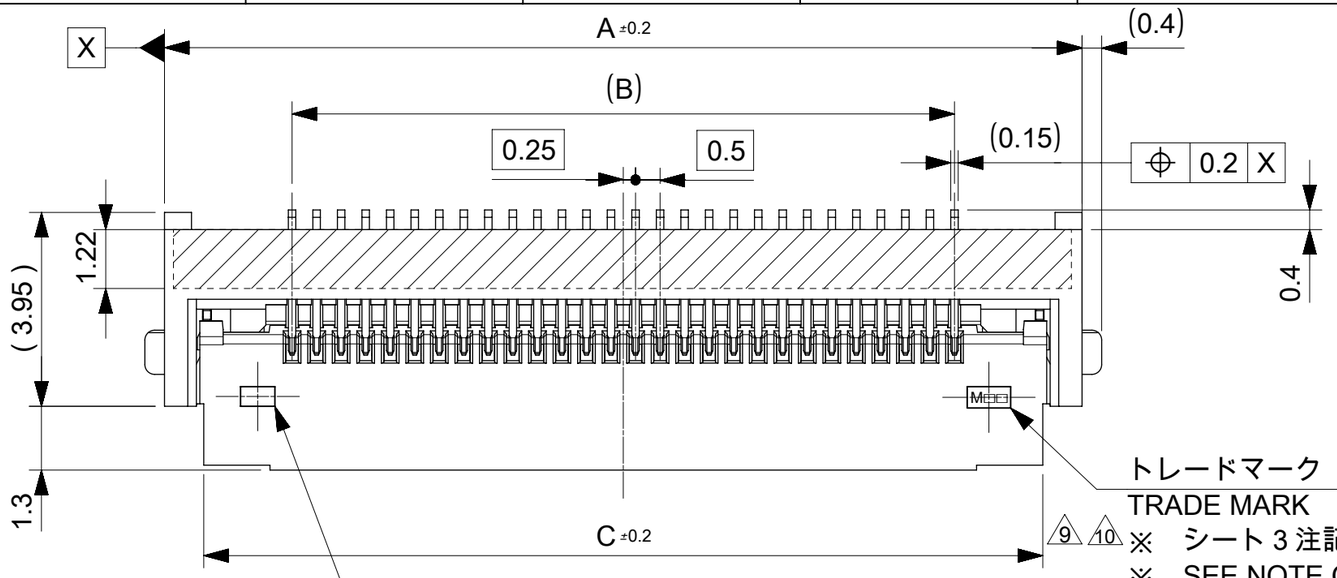
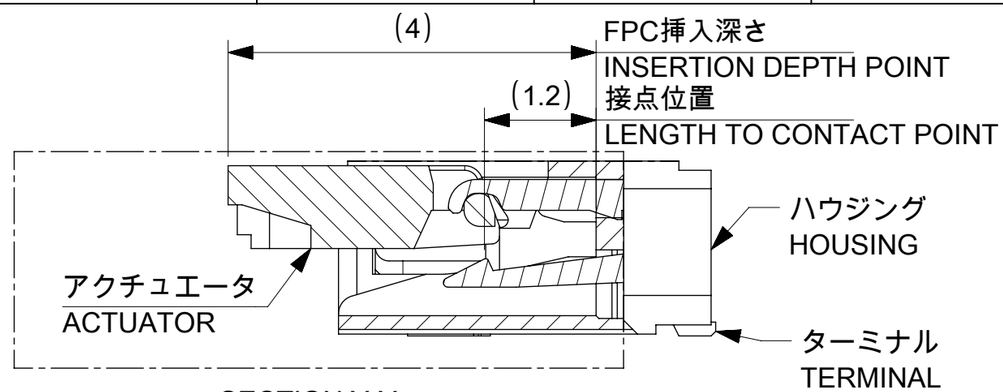
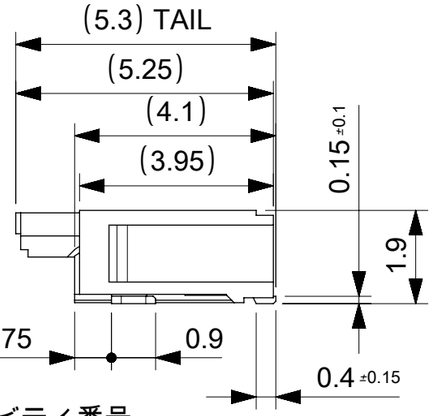
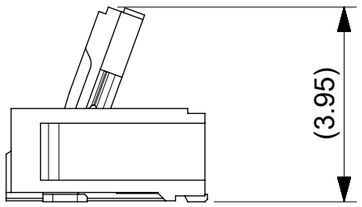




SECTION Y-Y
SCALE 15:1





17.1	13.5	18.7	5052782833	28
16.1	12.5	Ⓑ17.7	5052782633	26
15.1	11.5	Ⓑ16.7	5052782433	24
14.1	10.5	Ⓑ15.7	5052782233	22
13.1	9.5	Ⓑ14.7	5052782033	20
12.6	9.0	14.2	5052781933	19
12.1	8.5	13.7	5052781833	18
11.6	8.0	13.2	5052781733	17
11.1	7.5	12.7	5052781633	16
10.6	7.0	12.2	5052781533	15
10.1	6.5	11.7	5052781433	14
9.6	6.0	11.2	5052781333	13
9.1	5.5	10.7	5052781233	12
8.6	5.0	10.2	5052781133	11
8.1	4.5	9.7	5052781033	10
7.6	4.0	9.2	5052780933	9
7.1	3.5	8.7	5052780833	8
6.6	3.0	8.2	5052780733	7
6.1	2.5	7.7	5052780633	6
5.6	2.0	7.2	5052780533	5
5.1	1.5	6.7	5052780433	4
C	B	A	EMBOSSED PACKAGE オーダー番号 ORDER NO.	Ckt

CONNECTOR SERIES NO. 505278**22

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

REVISED
EC NO: 117930 2017/06/09
DRWN: JASANUMA 2017/06/12
CHK'D: YKOBAYASHI02 2017/06/12
APPR: TKUSUHARA01

REV: C

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL	±	1.0 °
4 PLACES	±	0.2
3 PLACES	±	0.2
2 PLACES	±	0.2
1 PLACE	±	0.25
0 PLACES	±	0.3

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS: MM
SCALE: 8:1
DRWN BY: TMORISHITA DATE: 2015/02/09
CHK'D BY: KTAKAHASHI DATE: 2015/02/12
APPR BY: YNOGAWA DATE: 2015/02/12
DRAWING SIZE: A3
THIRD ANGLE PROJECTION

molex®

0.5 FFC CONN ZIF E/O BTM CONT TYPE ASSY

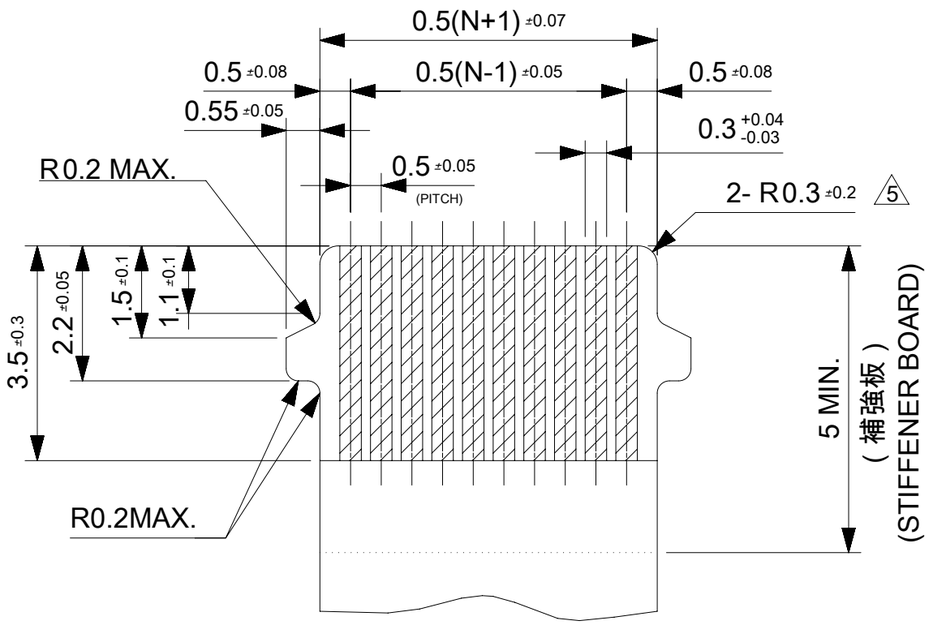
PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
505278	SEE CHART	GENERAL

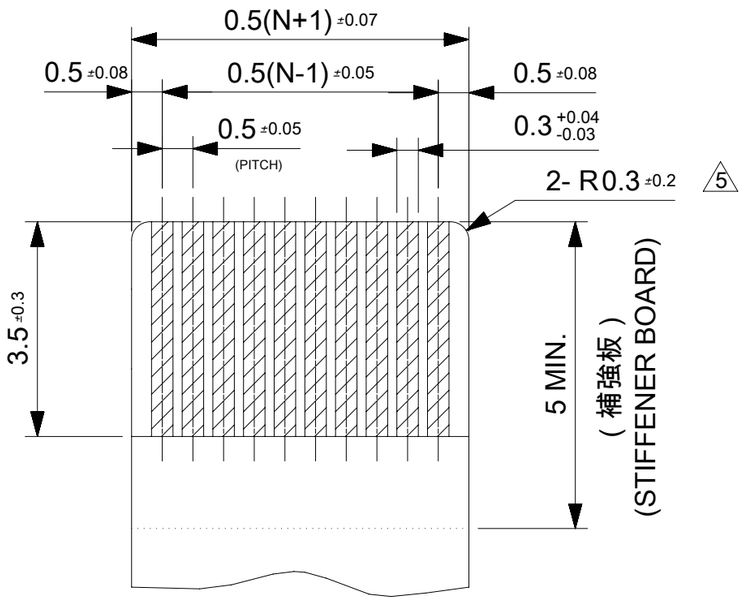
DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
5052781000	PSD	000	1 OF 3

RELEASE STATUS | | RELEASE DATE |

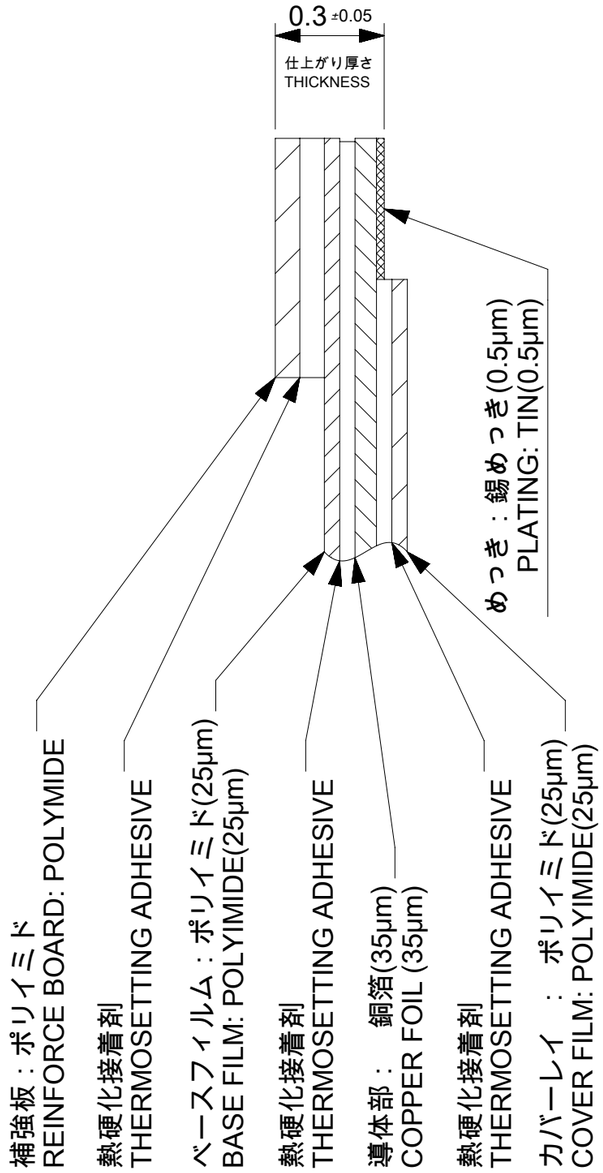
FORMAT: master-lb-prod-A3
REVISION: G
DATE: 2017/02/06



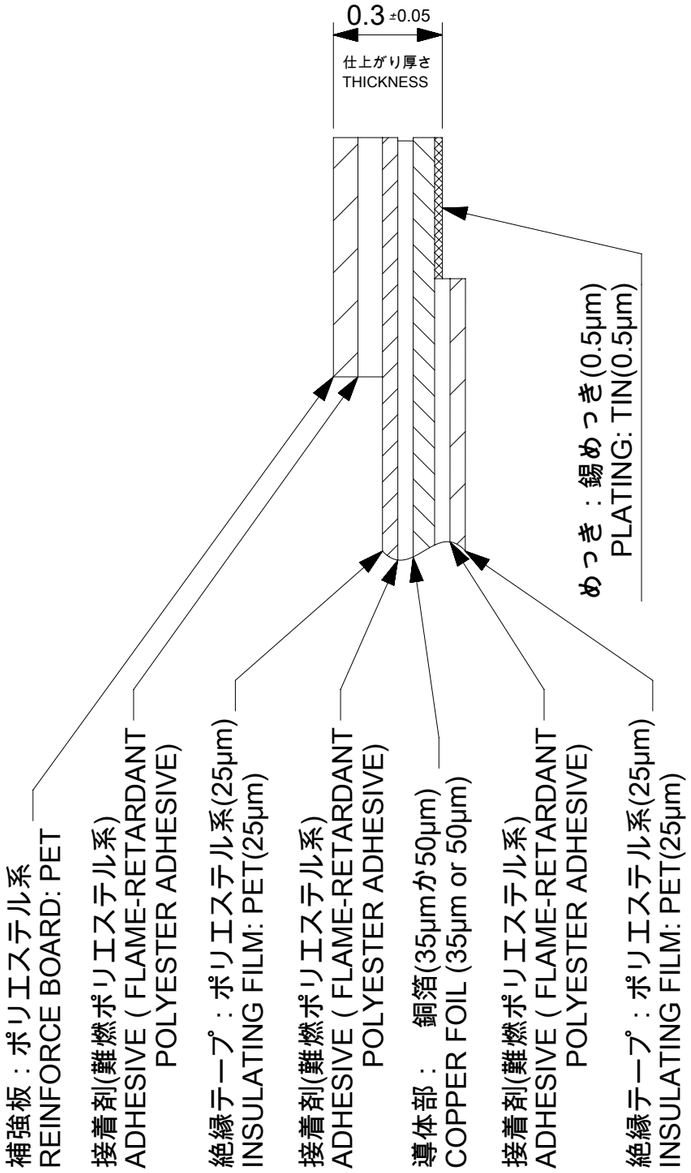
適合FPC/FFC推奨寸法
APPLICABLE FPC/FFC
RECOMMENDED DIMENSION



耳無し適合FPC/FFC推奨寸法
APPLICABLE NON-TAB FPC/FFC
RECOMMENDED DIMENSION



FPC構成推奨仕様
STRUCTURE OF FPC



FFC構成推奨仕様
STRUCTURE OF FFC

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

REVISED
EC NO: 117930 2017/06/09
DRWN: JASANUMA 2017/06/12
CHK'D: YKOBAYASHI02 2017/06/12
APPR: TKUSUHARA01

REV
C

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ±	1.0 °
4 PLACES	± 0.2
3 PLACES	± 0.2
2 PLACES	± 0.2
1 PLACE	± 0.25
0 PLACES	± 0.3

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS	MM
SCALE	1:1
DRWN BY	TMORISHITA
DATE	2015/02/09
CHK'D BY	KTAKAHASHI
DATE	2015/02/12
APPR BY	YNOGAWA
DATE	2015/02/12
DRAWING SIZE	A3
	THIRD ANGLE PROJECTION

molex®

0.5 FFC CONN ZIF E/O BTM CONT TYPE ASSY

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
505278	SEE SHEET 1	GENERAL

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
5052781000	PSD	000	2 OF 3

RELEASE STATUS		RELEASE DATE	

FORMAT: master-tb-prod-A3
REVISION: G
DATE: 2017/02/06

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 :ポリアミド　ガラス充填、UL94V-0(黒)
ACTUATOR　　POLYAMIDE GLASS FILLED, UL94V-0(BLACK)
ターミナル　　:リン青銅(t=0.15)
TERMINAL　　PHOSPHOR BRONZE
金具　　:リン青銅(t=0.15)
FITTING NAIL　PHOSPHOR BRONZE

2.めっき仕様 PLATING
ターミナル TERMINAL
錫銀ビスマスめっき (1.0μm以上)
下地:ニッケルめっき (1.0μm以上)
TINSILVER BISMUTH PLATING
(1.0 MICROMETER MINIMUM)
UNDERPLATE : NICKEL OVERALL
(1.0 MICROMETER MINIMUM)
金具 FITTING NAIL
錫めっき(1.0μm以上)
下地:ニッケルめっき (1.0μm以上)
TIN PLATING (1.0 MICROMETER MIN.)
UNDER PLATING : NICKEL PLATING
(1.0 MICROMETER MIN.)

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 SHOULD BE CLOSED.

△4 パターン剥離止め用金具
FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.

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

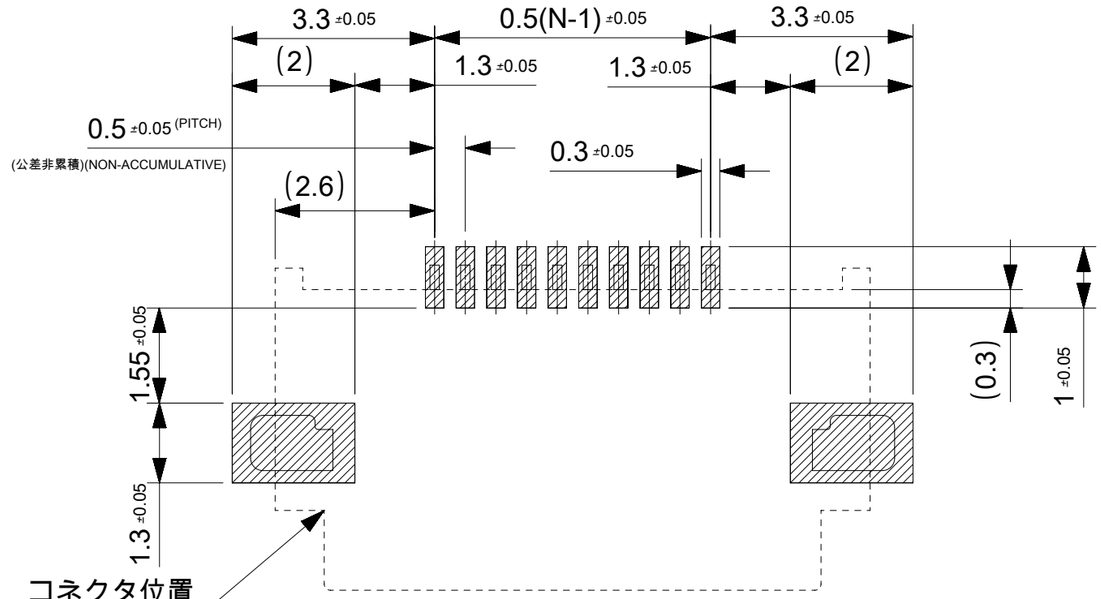
6.N:極数　N:CIRCUIT.

7.ELV及びRoHS適合品
ELV AND RoHS COMPLIANT

8.テールと金具を併せた平坦度は0.1以下とする。
TAILS AND NAILS COPLANALITY TO BE 0.1 MAX.

△9 トレードマーク　:Mプラス2文字の製造工場を示すアルファベットにて表示
但し,"J"はJAPANを"L"はMALAYSIAを示す。
(例MXJまたはMXL)
キャビティー番号 :1桁から2桁の数字にて表示
金型番号　　:アルファベット1文字にて表示(例 A,B等)
TRADEMARK:DISPLAY BY M PLUS 2LETTERS OF ALPHABET
WHICH MEAN THE MANUFACTURE.
BUT "J" MEANS JAPAN. "L" MEANS MALAYSIA (TO TRADE MARK)
(e.g. MXJ OR MXL)
AND BY 1 OR 2 DIGIT NUMBER (TO CAVITY NO.)
AND BY 1 LETTER OF ALPHABET (TO MOLD NO.)
(e.g. A,B etc)

△10 アクチュエータのトレードマーク及び金型番号とキャビティー番号の位置は
キャビティー番号奇数の時:本図の通り。
キャビティー番号偶数の時:本図の逆位置に配置。
POSITION OF TRADE MARK, MOLD & CAVITY NO. ON THE ACTUATOR
WHEN CAVITY NO. IS ODD　:AS DROWING.
WHEN CAVITY NO. IS EVEN　:REVERCE OF DROWING.



推奨基板レイアウト
RECOMENDED P.W.B.
PATTERN LAYOUT

参考マスク厚：100μm
参考マスク開口率：100%
REFERENCE SCREEN THICKNESS : 100μm
REFERENCE SCREEN OPEN RATIO : 100%

FPC/FFCについて　ABOUT FFC
打ち抜き方向は導体側から補強板側を推奨します。
導体部については軟箔銅35μmまたは50μmを推奨します。
FFCに規定された定格温度がFFC単体前提である場合が御座います。
コネクタと組み合わせての実使用において、接着層が劣化するなどの信頼性を満足できないケースを回避するため、
実機での評価/確認をお願いいたします。
RECOMMENDED PUNCHING DIRECTION　: FROM CONDUCTOR SIDE TO STIFFENER SIDE
RECOMMENDED CONDUCTOR SPEC　: SOFT COPPER FOIL
RECOMMENDED CONDUCTOR THICKNESS : 35 MICROMETER OR 50 MICROMETER
NOTE: WHEN ACTUALLY USING IT WITH CONNECTOR, PLEASE DO THE EVALUATION AND THE
CONFIRMATION WITH AN ACTUAL EQUIPMENT TO EVADE THE CASE WHERE RELIABILITY
CANNOT BE FILLED (THE ADHESIVE LINE OF FFC IS DETERIORATED ETC.)

FPCについて　ABOUT FPC
補強フィルム材質はポリイミドを推奨します。ベースフィルムは25μmを推奨します。
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。
RECOMMENDED MATERIAL/THICKNESS.
RECOMMENDED STIFFENER MATERIAL: POLYIMIDE
RECOMMENDED BASE FILM THICKNESS: 25 MICROMETER
RECOMMENDED ADHESIVE: THERMOSETTING ADHESIVE
NOTE: PLEASE PUT APPROPRIATE AMOUNT OF ADHESIVE ON ADHEREND BECAUSE THERE IS A
POSSIBILITY THAT THE EXTRA ADHESIVE CAUSES THE DEFECT IN ELECTRICAL CONTINUITY.
THERE IS A POSSIBILITY THAT THE PRESCRIPT TEMPERATURE OF FFC IS SET TO SINGLE IT.

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

REVISED
EC NO: 117930　2017/06/09
DRWN: JASANUMA　2017/06/12
CHK'D: YKOBAYASHI02　2017/06/12
APPR: TKUSUHARA01

GENERAL TOLERANCES (UNLESS SPECIFIED)
ANGULAR TOL ± 1.0 °
4 PLACES ± 0.2
3 PLACES ± 0.2
2 PLACES ± 0.2
1 PLACE ± 0.25
0 PLACES ± 0.3
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

REV C

DIMENSION UNITS: MM　SCALE: 10:1
DRWN BY: TMORISHITA　DATE: 2015/02/09
CHK'D BY: KTAKAHASHI　DATE: 2015/02/12
APPR BY: YNOGAWA　DATE: 2015/02/12
DRAWING SIZE: A3　THIRD ANGLE PROJECTION

molex®

0.5 FFC CONN ZIF E/O BTM CONT TYPE ASSY

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
505278	SEE SHEET 1	GENERAL

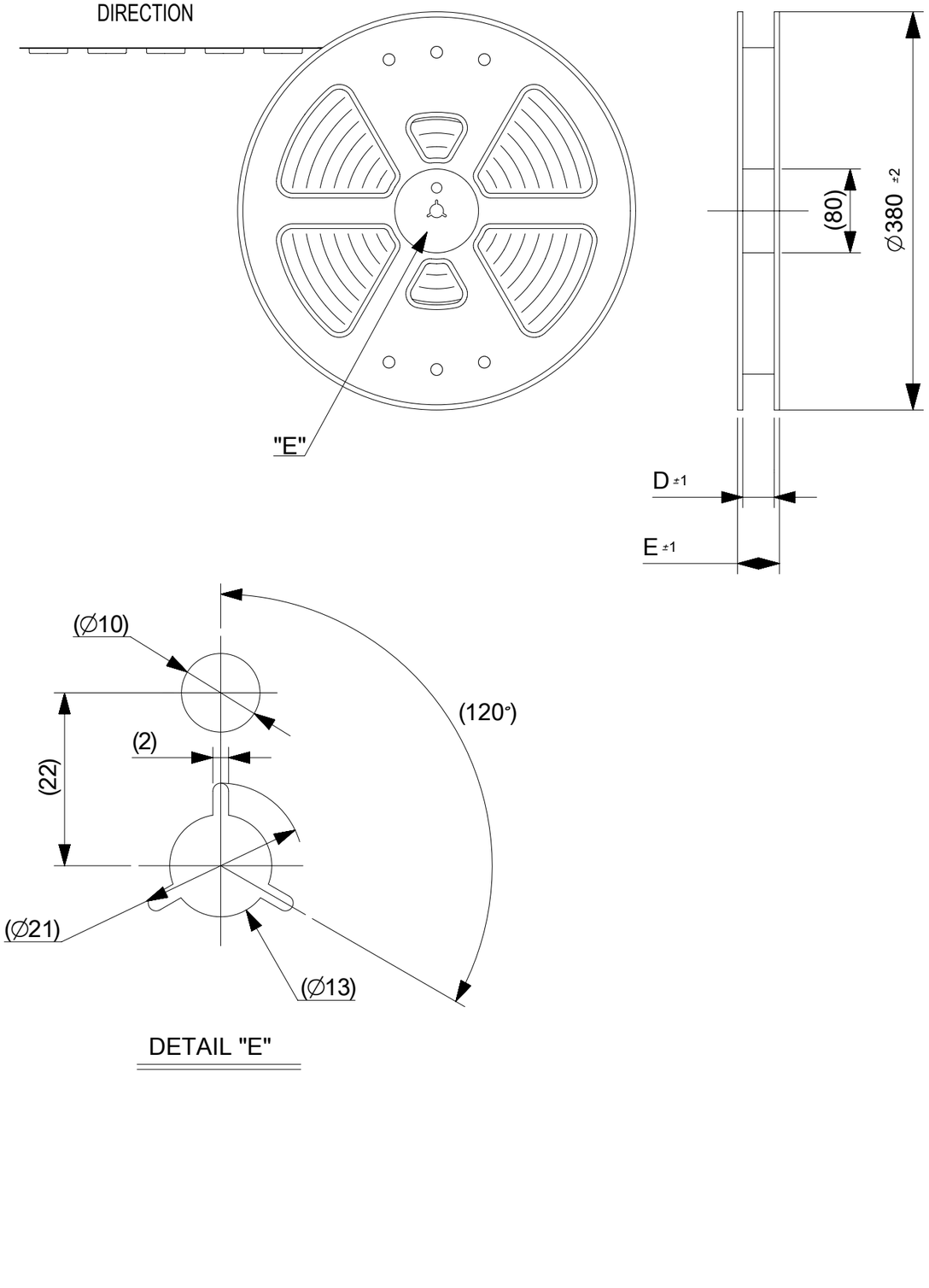
DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
5052781000	PSD	000	3 OF 3

RELEASE STATUS		RELEASE DATE	

FORMAT: master-tb-prod-A3
REVISION: G
DATE: 2017/02/06

引き出し方向

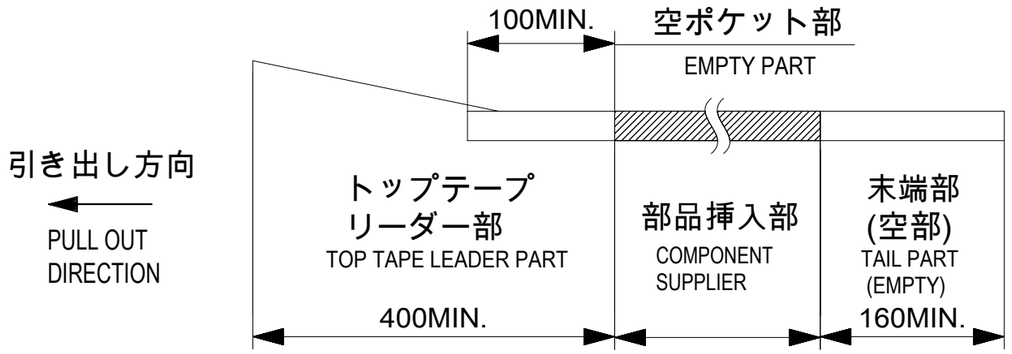
PULL OUT
DIRECTION



DETAIL "E"

NOTES

1. 梱包数量： 3000個 / リール
   NUMBER OF CONNECTORS : 3000 PCS/REEL.
2. リードテープ長さ
   LEAD TAPE LENGTH



3. カバーテープの剥離強度については、IEC60286-3に準拠。
   COVER TAPE PEEL FORCE IS DEFINED BY IEC 60286-3.
4. 製品詳細寸法については、図面　5052781000/1001を参照下さい。
   FOR DIMENTIONS OF PRODUCT, REFER TO 5052781000/1001.
5. 材料　MATERIAL
   キャリアテープ　：　ポリスチレン
   CARRIER TAPE : POLYSTYRENE
   トップテープ　：　ポリエチレンテレフタレート、ポリエチレン
   TOP TAPE : POLYETHYLENE TEREHTHALATE, POLYETHYLENE
   リール　:ポリスチレン < リサイクル材を含む >
   REEL : POLYSTYRENE < RECYCLE MATERIAL CONTAINED >
6. ELV及びRoHS適合品　ELV AND RoHS COMPLIANT.

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

EC NO:	106679	2016/07/14	
DRWN:	YMIZUNO02	2016/07/28	
CHK'D:	KTAKAHASHI	2016/07/29	
APPR:	TKUSUHARA01		

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ±	1.0	°
4 PLACES	±	0.03
3 PLACES	±	0.03
2 PLACES	±	0.05
1 PLACE	±	0.1
0 PLACES	±	0.2

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS	MM
SCALE	2:1
DRWN BY	FSATO
DATE	2015/02/09
CHK'D BY	KTAKAHASHI
DATE	2015/02/12
APPR BY	YNOGAWA
DATE	2015/02/12
DRAWING SIZE	A3
THIRD ANGLE PROJECTION	

molex®

0.5 FFC CONN ZIF E/O EMBOSSED TAPE PKG

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
505278	SEE CHART	GENERAL

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
5052780000	PSD	000	1 OF 2

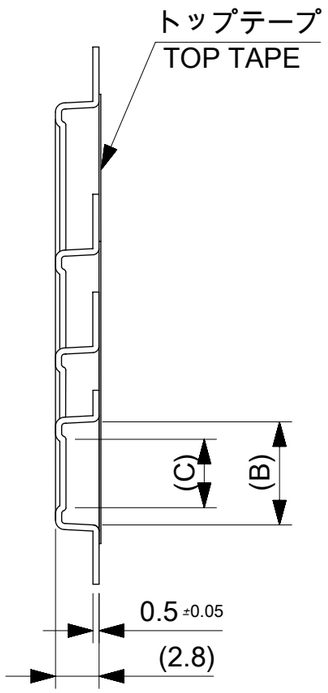
D REV

RELEASE STATUS	P1	RELEASE DATE	29.07.2016 04:59:56

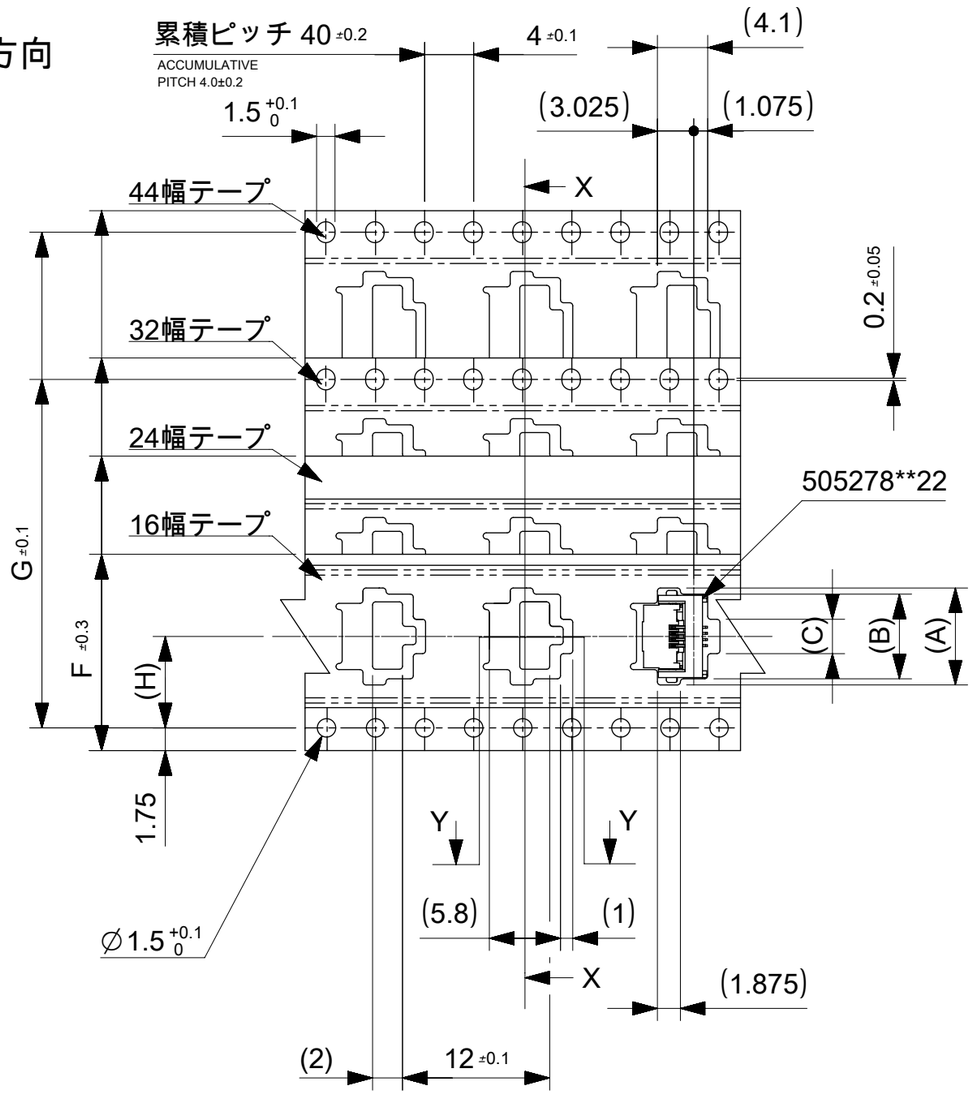
FORMAT: master-lb-prod-A3
REVISION: G
DATE: 2015/12/14

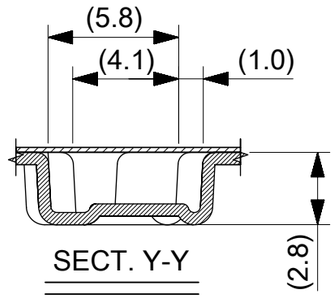
引き出し方向

PULL OUT DIRECTION



SECT. X-X





SECT. Y-Y

CONNECTOR SEIRES NO.505278**22

H	G	F	E	D	C	B	A	EMBOSSED PACKAGE オーダー番号 ORDER NO.	Ckt
20.2	40.4	44	49.4	45.4	25.9	29.9	31	5052785033	50
					23.4	27.4	28.5	5052784533	45
					20.9	24.9	26	5052784033	40
					18.4	22.4	23.5	5052783533	35
14.2	28.4	32	37.4	33.4	15.9	19.9	21	5052783033	30
					14.9	18.9	20	5052782833	28
					13.9	17.9	19	5052782633	26
					12.9	16.9	18	5052782433	24
					11.9	15.9	17	5052782233	22
11.5	---	24	29.4	25.4	10.9	14.9	16	5052782033	20
					10.4	14.4	15.5	5052781933	19
					9.9	13.9	15	5052781833	18
					9.4	13.4	14.5	5052781733	17
					8.9	12.9	14	5052781633	16
					8.4	12.4	13.5	5052781533	15
					7.9	11.9	13	5052781433	14
					7.4	11.4	12.5	5052781333	13
					6.9	10.9	12	5052781233	12
					6.4	10.4	11.5	5052781133	11
					5.9	9.9	11	5052781033	10
					5.4	9.4	10.5	5052780933	9
					4.9	8.9	10	5052780833	8
					4.4	8.4	9.5	5052780733	7
					3.9	7.9	9	5052780633	6
					3.4	7.4	8.5	5052780533	5
7.5	---	16	21.4	17.4	2.9	6.9	8	5052780433	4

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

REV	EC NO:	DRWN:	CHK'D:	APPR:
D	106679	YMIZUNO02	KTAKAHASHI	TKUSUHARA01
C	106679	YMIZUNO02	KTAKAHASHI	TKUSUHARA01
B	106679	YMIZUNO02	KTAKAHASHI	TKUSUHARA01
A	106679	YMIZUNO02	KTAKAHASHI	TKUSUHARA01

GENERAL TOLERANCES (UNLESS SPECIFIED)	
ANGULAR TOL ± 1.0 °	
4 PLACES	± 0.03
3 PLACES	± 0.03
2 PLACES	± 0.05
1 PLACE	± 0.1
0 PLACES	± 0.2

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS	MM
SCALE	2:1
DRWN BY	FSATO
DATE	2015/02/09
CHK'D BY	KTAKAHASHI
DATE	2015/02/12
APPR BY	YNOGAWA
DATE	2015/02/12
DRAWING SIZE	A3
THIRD ANGLE PROJECTION	

molex®

0.5 FFC CONN ZIF E/O EMBOSSED TAPE PKG

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
505278	SEE CHART	GENERAL

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
5052780000	PSD	000	2 OF 2

RELEASE STATUS	P1	RELEASE DATE	29.07.2016 04:59:56

FORMAT: master-lib-prod-A3
REVISION: G
DATE: 2015/12/14

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

molex:

2181021034 2174712111 150200083 151670248 2147561082 2153482125 2162721083 2175101122
559320830 2153261101 2174911213 151660051 216288-1063 217471-1221 2183231061 0150200051
1200878703 1300970327 2147632113 2153252062 2163012123 2175202124 2178431123 0982670423
151660751 936012539 1451300703 2138642633 2174902123 2174911202