

Part Number : [541020164](#)

Product Description : 0.50mm Pitch SlimStack
Receptacle, Surface Mount, Dual Row, Vertical,
2.50mm Stacking Height, Gold Plating with Nickel
Barrier, 16 Circuits

Series Number : 54102

Status : Active

Product Category : Board-to-Board Connectors



Documents and Resources

Drawings

[541020164_sd.pdf](#)

3D Models and Design Files

[STEP AP242](#)

[SOLIDWORKS](#)

[Creo](#)

[Symbol and Footprint \(Multi-Format\)](#)

Specifications

[SPK-54102-001-001.pdf](#)

[PS-54102-011-001.pdf](#)

Product Environment Compliance

Compliance

GADSL/IMDS	Not Relevant
China RoHS	per SJ/T 11365-2006
EU ELV	Not Relevant
Low-Halogen Status	Low-Halogen per IEC 61249-2-21
REACH SVHC	Not Contained per D(2025)7771-DC (04 Feb 2026)
EU RoHS	Compliant per EU 2015/863

[Compliance Statements](#)

- EU RoHS
- REACH SVHC
- Low-Halogen

Industry Documents

- IPC 1752A Class C
- IPC 1752A Class D
- Molex Product Compliance Declaration
- IEC-62474
- chemSHERPA (xml)

Substances of Interest

- PFAS

EU RoHS Certificate of Compliance

Additional Product Compliance Information

Part Details

General

Status	Active
Category	Board-to-Board Connectors
Series	0.5, BB H2.5
Description	0.50mm Pitch SlimStack Receptacle, Surface Mount, Dual Row, Vertical, 2.50mm Stacking Height, Gold Plating with Nickel Barrier, 16 Circuits
Application	Board-to-Board
Component Type	Receptacle
Product Name	SlimStack
UPC	822348279951

Agency

UL	E29179
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Electrical

Current - Maximum per Contact	0.5A
Voltage - Maximum	50V

Physical

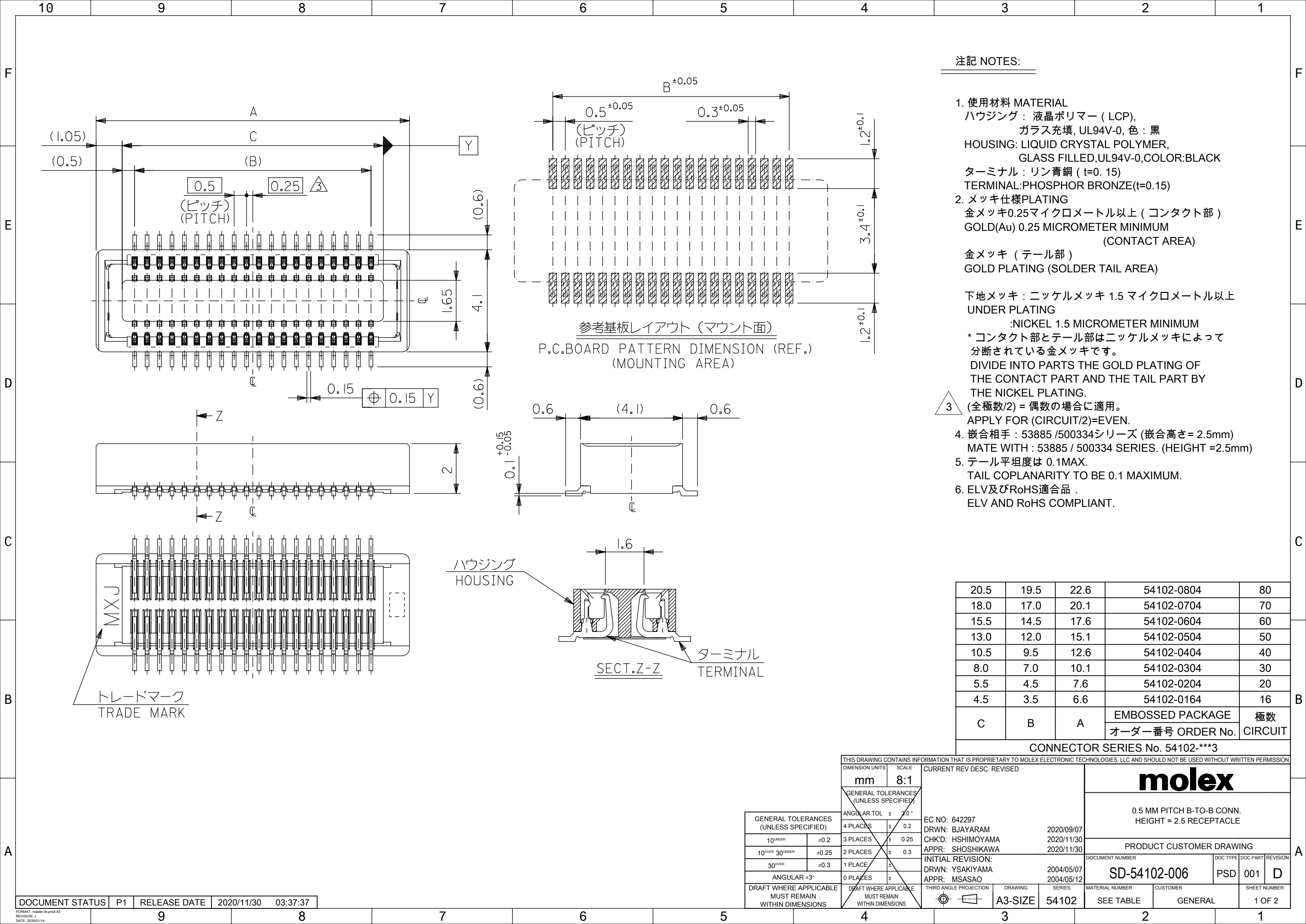
Circuits (Loaded)	16
Circuits (maximum)	16
Color - Resin	Black

Durability (mating cycles max)	30
Flammability	94V-0
Glow-Wire Capable	No
Lock to Mating Part	Yes
Mated Height	2.50mm
Mated Width	5.30mm
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Gold
Net Weight	76.125/mg
Number of Rows	2
Orientation	Vertical
Packaging Type	Embossed Tape on Reel
PCB Locator	No
PCB Retention	No
PCB Thickness - Recommended	1.60mm
Pitch - Mating Interface	0.50mm
Polarized to Mating Part	No
Polarized to PCB	No
Temperature Range - Operating	-40° to +105°C
Termination Interface Style	Surface Mount

Mates With / Use With

Mates with Part(s)

Description	Part Number
0.50mm Pitch Dual Row SlimStack Plugs	<u>500334</u>
0.50mm Pitch Vertical SlimStack Plugs	<u>53885</u>



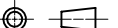
注記 NOTES:

1. 使用材料 MATERIAL
ハウジング : 液晶ポリマー (LCP),
ガラス充填, UL94V-0, 色 : 黒
HOUSING: LIQUID CRYSTAL POLYMER,
GLASS FILLED, UL94V-0, COLOR: BLACK
ターミナル : リン青銅 (t=0. 15)
TERMINAL: PHOSPHOR BRONZE (t=0.15)
2. メッキ仕様 PLATING
金メッキ 0.25マイクロメートル以上 (コンタクト部)
GOLD (Au) 0.25 MICROMETER MINIMUM
(CONTACT AREA)

金メッキ (テール部)
GOLD PLATING (SOLDER TAIL AREA)

下地メッキ : ニッケルメッキ 1.5 マイクロメートル以上
UNDER PLATING
: NICKEL 1.5 MICROMETER MINIMUM
* コンタクト部とテール部はニッケルメッキによって
分断されている金メッキです。
DIVIDE INTO PARTS THE GOLD PLATING OF
THE CONTACT PART AND THE TAIL PART BY
THE NICKEL PLATING.
△ 3 (全極数/2) = 偶数の場合に適用。
APPLY FOR (CIRCUIT/2)=EVEN.
4. 嵌合相手 : 53885 /500334シリーズ (嵌合高さ = 2.5mm)
MATE WITH : 53885 / 500334 SERIES. (HEIGHT =2.5mm)
5. テール平坦度は 0.1MAX.
TAIL COPLANARITY TO BE 0.1 MAXIMUM.
6. ELV及びRoHS適合品 .
ELV AND RoHS COMPLIANT.

20.5	19.5	22.6	54102-0804	80
18.0	17.0	20.1	54102-0704	70
15.5	14.5	17.6	54102-0604	60
13.0	12.0	15.1	54102-0504	50
10.5	9.5	12.6	54102-0404	40
8.0	7.0	10.1	54102-0304	30
5.5	4.5	7.6	54102-0204	20
4.5	3.5	6.6	54102-0164	16
C	B	A	EMBOSSED PACKAGE	極数 CIRCUIT
			オーダー番号 ORDER No.	
CONNECTOR SERIES No. 54102-***3				

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													
DIMENSION UNITS		SCALE		CURRENT REV DESC: REVISED				molex 0.5 MM PITCH B-TO-B CONN. HEIGHT = 2.5 RECEPTACLE					
mm		8:1											
GENERAL TOLERANCES (UNLESS SPECIFIED)													
ANGULAR TOL		± 30.0°		EC NO: 642297 DRWN: BJAYARAM 2020/09/07 CHK'D: HSHIMOYAMA 2020/11/30 APPR: SHOSHIKAWA 2020/11/30				PRODUCT CUSTOMER DRAWING					
4 PLACES		± 0.2											
3 PLACES		± 0.25											
2 PLACES		± 0.3		INITIAL REVISION: DRWN: YSAKIYAMA 2004/05/07 APPR: MSASAO 2004/05/12				DOCUMENT NUMBER SD-54102-006		DOC TYPE PSD	DOC PART 001	REVISION D	
1 PLACE		±											
0 PLACES		±											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION 		DRAWING A3-SIZE	SERIES 54102	MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL		SHEET NUMBER 1 OF 2	

molex

0.5 MM PITCH B-TO-B CONN.
HEIGHT = 2.5 RECEPTACLE

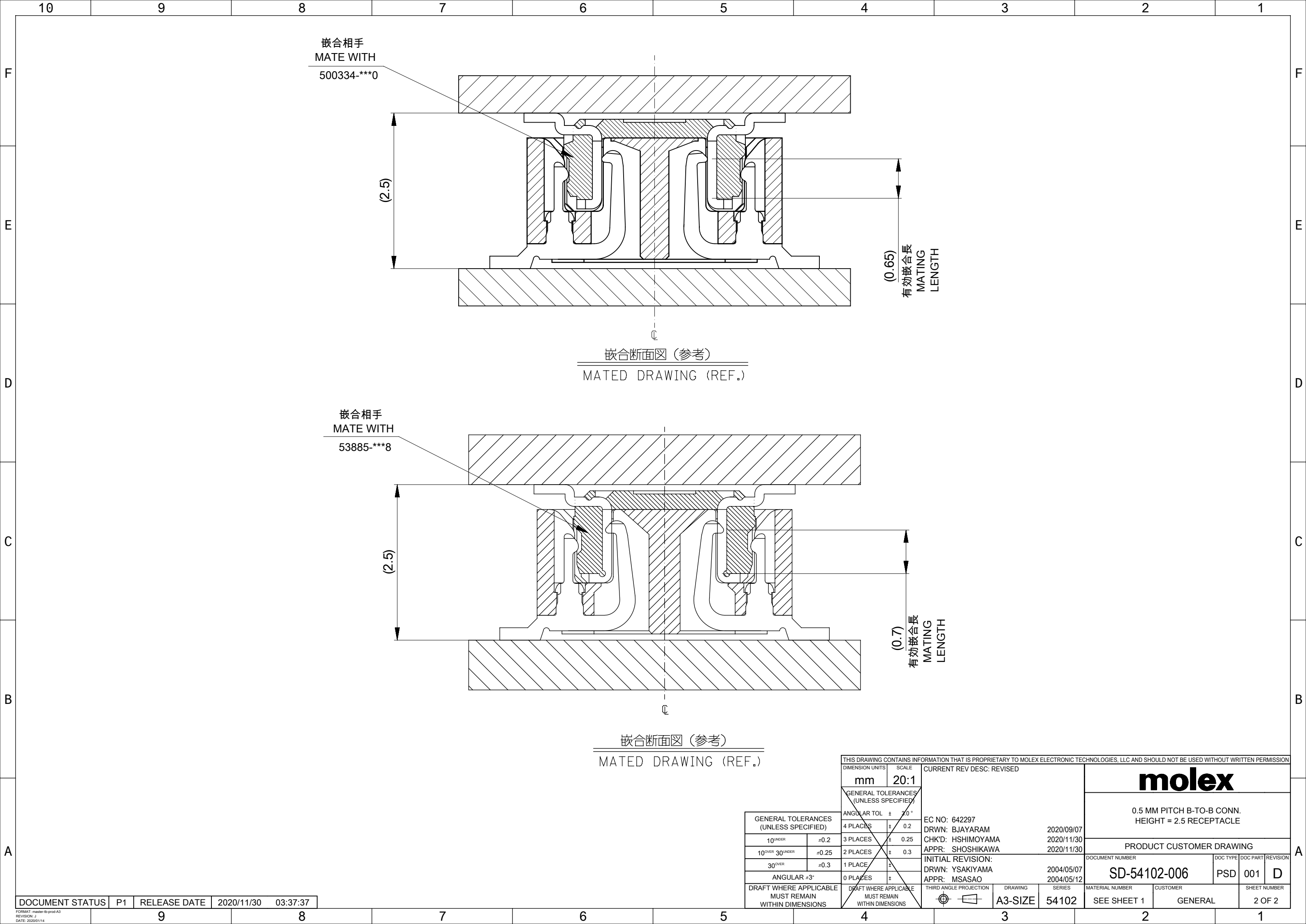
PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
SD-54102-006	PSD	001	D

MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
SEE TABLE	GENERAL	1 OF 2

DOCUMENT STATUS	P1	RELEASE DATE	2020/11/30	03:37:37
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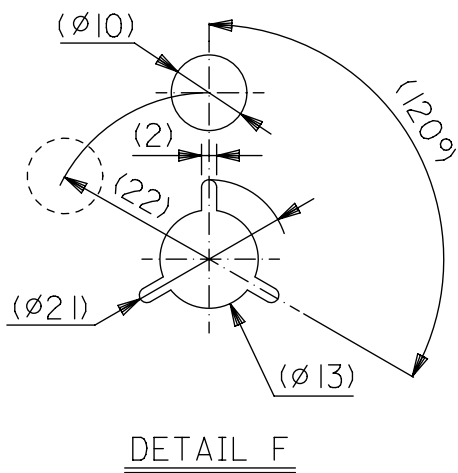
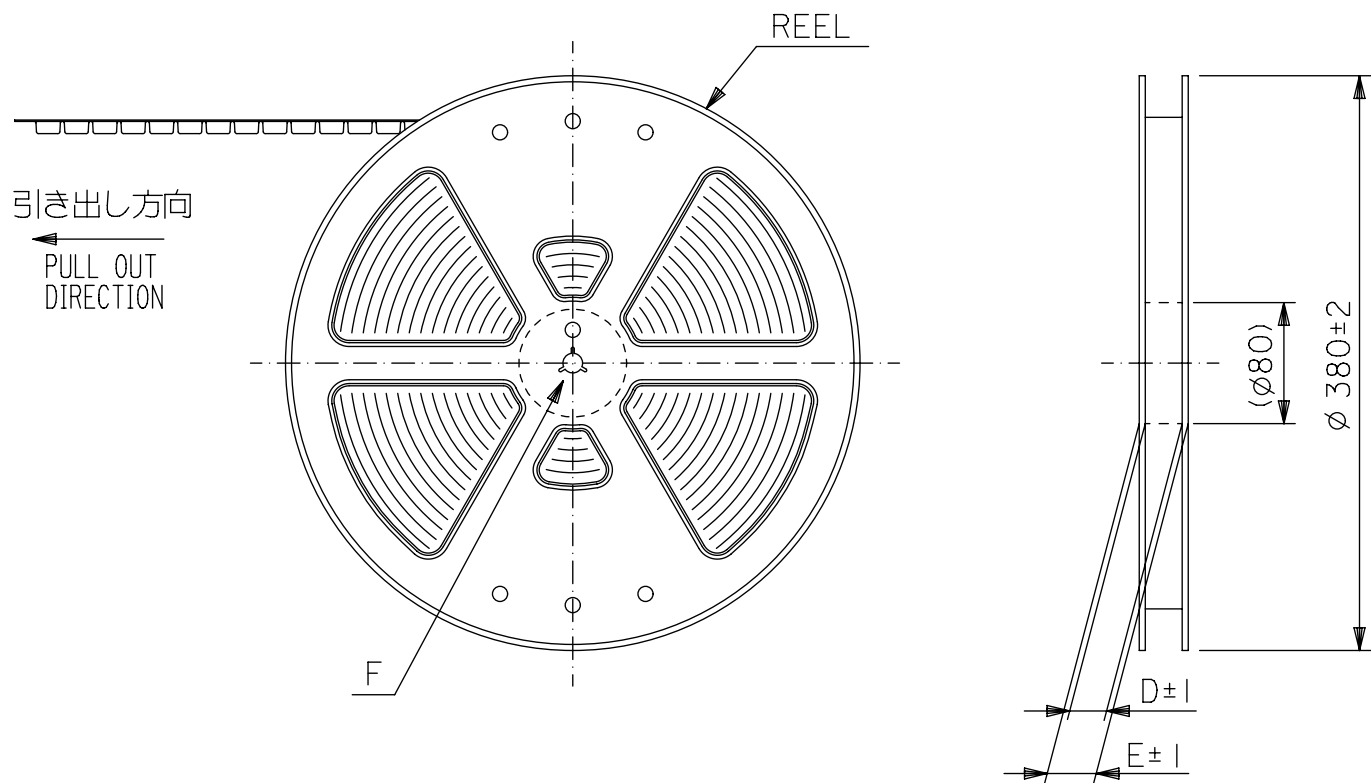
FORMAT: master-b-prod-A3
REVISION: J
DATE: 2020/11/14



GENERAL TOLERANCES (UNLESS SPECIFIED)	
10 ^{UNDER}	±0.2
10 ^{OVER} 30 ^{UNDER}	±0.25
30 ^{OVER}	±0.3
ANGULAR ±3°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

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DIMENSION UNITS		mm		20:1		0.5 MM PITCH B-TO-B CONN. HEIGHT = 2.5 RECEPTACLE			
GENERAL TOLERANCES (UNLESS SPECIFIED)		ANGULAR TOL		± 30°		PRODUCT CUSTOMER DRAWING			
4 PLACES		± 0.2				EC NO: 642297 DRWN: BJAYARAM CHK'D: HSHIMOYAMA APPR: SHOSHIKAWA			
3 PLACES		± 0.25				2020/09/07 2020/11/30 2020/11/30			
2 PLACES		± 0.3				INITIAL REVISION: DRWN: YSAKIYAMA APPR: MSASAO			
1 PLACE		±				2004/05/07 2004/05/12			
0 PLACES		±							
THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER	
A3-SIZE		54102		SEE SHEET 1		GENERAL		SHEET NUMBER	
								2 OF 2	

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
SD-54102-006	PSD	001	D

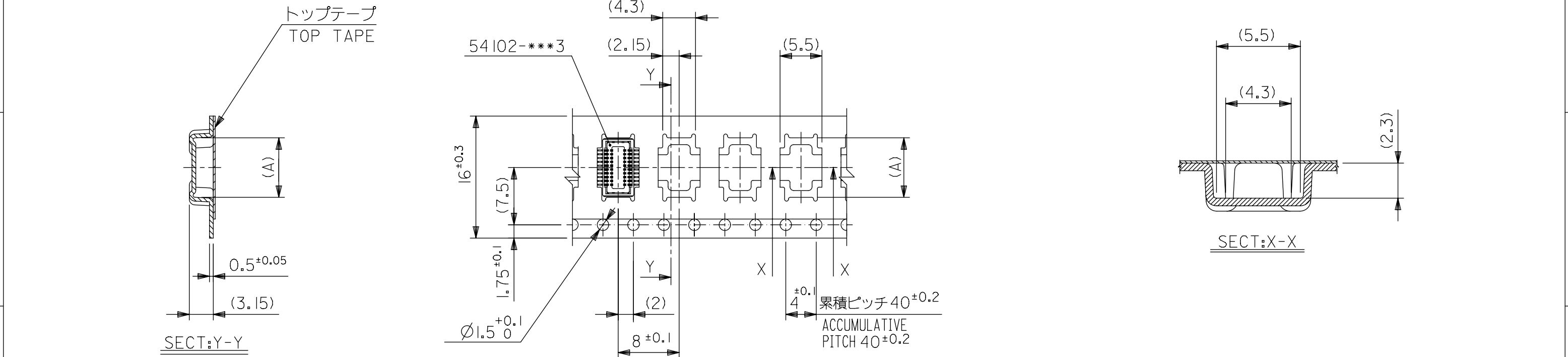


NOTES

- 製品詳細寸法については図面 SD-54102-006 を参照下さい。
DETAIL DIMENSION, SEE SD-54102-006
- 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
20PCS. MIN. トップテープ接着部 (空エンボス)
TOP TAPE BONDED PART. (EMPTY)
部品挿入部
COMPONENT SUPPLIER
末端部 (空部)
TAIL PART (EMPTY)
40 MIN.
- カバーテープの剥離強度については、IEC 60286-3に準拠
COVER TAPE PEEL FORCE IS DEFINED BY IEC60286-3.
- 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>

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: REVISED		molex		
DIMENSION UNITS		SCALE		0.5 MM PITCH B-TO-B CONN. HEIGHT = 2.5 RECEPTACLE EMBOSS TAPE PACKAGE		
mm		NTS		PRODUCT CUSTOMER DRAWING		
GENERAL TOLERANCES (UNLESS SPECIFIED)		ANGULAR TOL ± 30°		DOCUMENT NUMBER		
10 ^{UNDER}	±0.2	4 PLACES	± 0.2	SD-54102-007		
10 ^{OVER} 30 ^{UNDER}	±0.25	3 PLACES	± 0.25	PSD		
30 ^{OVER}	±0.3	2 PLACES	± 0.3	001		
ANGULAR ±3°		1 PLACE	±	C		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SHEET NUMBER		
THIRD ANGLE PROJECTION		DRAWING		1 OF 4		
A3-SIZE		SERIES				
54102		MATERIAL NUMBER				
SEE SHEET 2-4		CUSTOMER				
GENERAL						

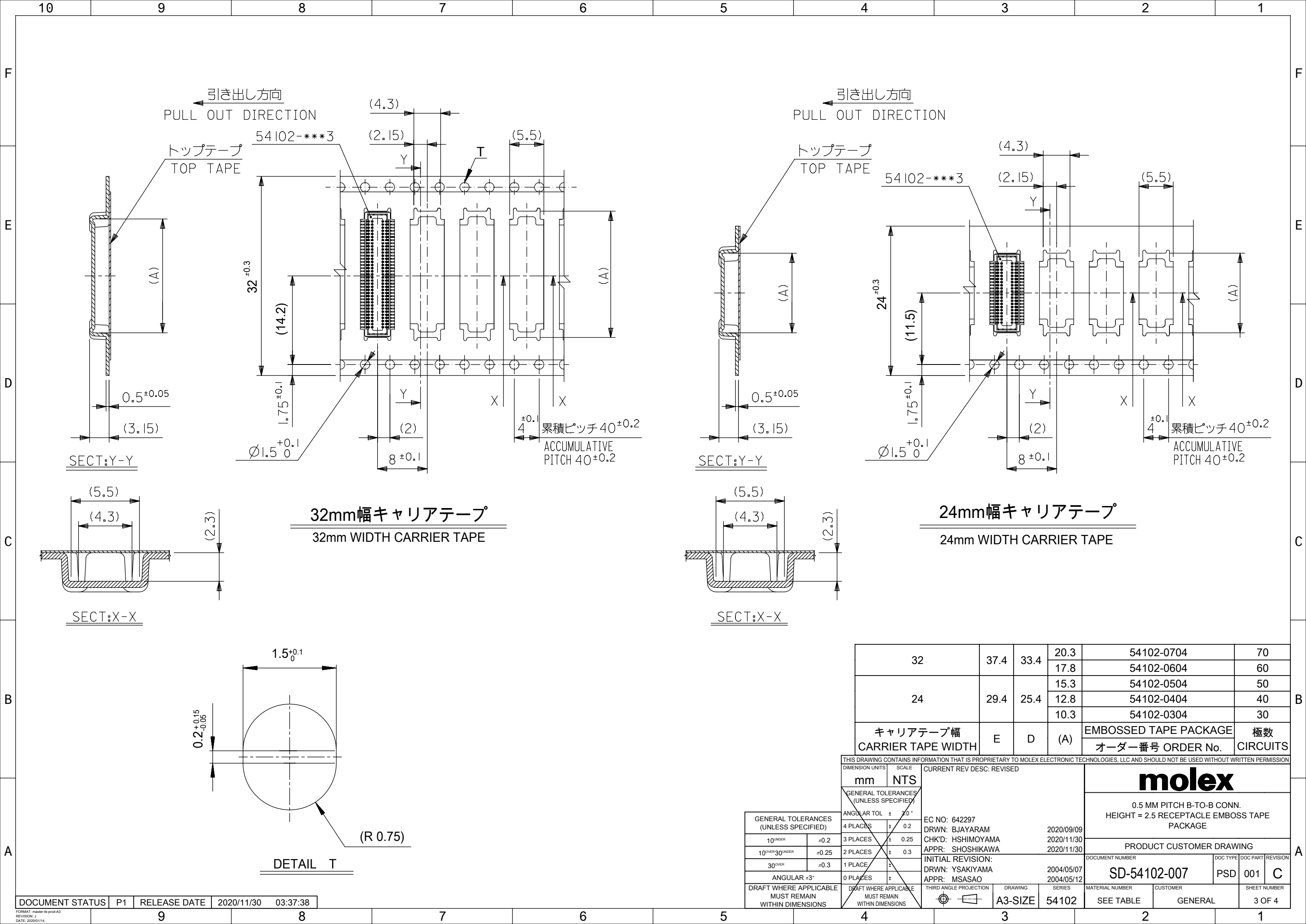
引き出し方向
PULL OUT DIRECTION

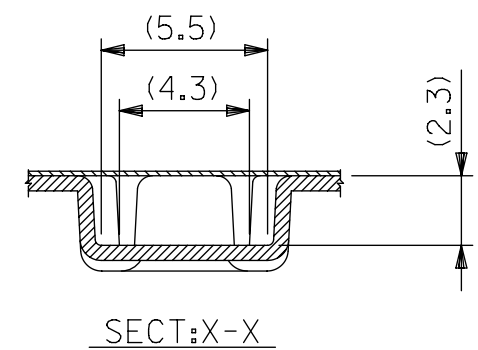


16mm幅キャリアテープ
16mm WIDTH CARRIER TAPE

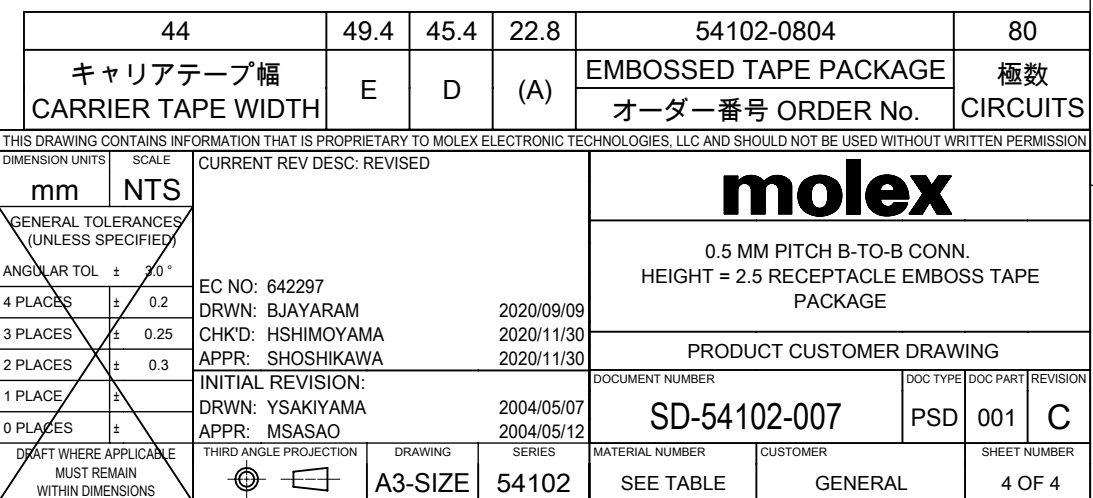
16	21.4	17.4	7.8	54102-0204	20
			6.8	54102-0164	16
キャリアテープ幅 CARRIER TAPE WIDTH	E	D	(A)	EMBOSSED TAPE PACKAGE	極数 CIRCUITS
				オーダー番号 ORDER No.	

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DIMENSION UNITS		SCALE		CURRENT REV DESC: REVISED				molex 0.5 MM PITCH B-TO-B CONN. HEIGHT = 2.5 RECEPTACLE EMBOSS TAPE PACKAGE			
mm		NTS									
GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 30° 4 PLACES ± 0.2 3 PLACES ± 0.25 2 PLACES ± 0.3 1 PLACE ± 0 PLACES ± DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				EC NO: 642297							
				DRWN: BJAYARAM						2020/09/09	
				CHK'D: HSHIMOMAYA				2020/11/30			
				APPR: SHOSHIKAWA				2020/11/30			
INITIAL REVISION: DRWN: YSAKIYAMA APPR: MSASAO				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION			
				SD-54102-007		PSD	001	C			
				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
				SEE TABLE		GENERAL		2 OF 4			
THIRD ANGLE PROJECTION		DRAWING		SERIES							
		A3-SIZE		54102							





44mm WIDTH CARRIER TAPE



FORMAT: master-tb-prod-A3
REVISION: J
DATE: 2020/01/14