

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

**Part Number:** [0541044631](#)  
**Status:** **Active**  
**Overview:** [ffc fpc smt](#)  
**Description:** 0.50mm (.020") Pitch FFC/FPC Connector, Right Angle, SMT, ZIF, Top Contact Style, 46 Circuits, Lead-free, 0.1µm (4µ") Gold (Au) Plating

**Documents:**

[3D Model](#) [Product Specification PS-54104-071 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

UL E29179

**General**

Product Family FFC/FPC Connectors  
 Series [54104](#)  
 Overview [ffc fpc smt](#)  
 Product Name N/A

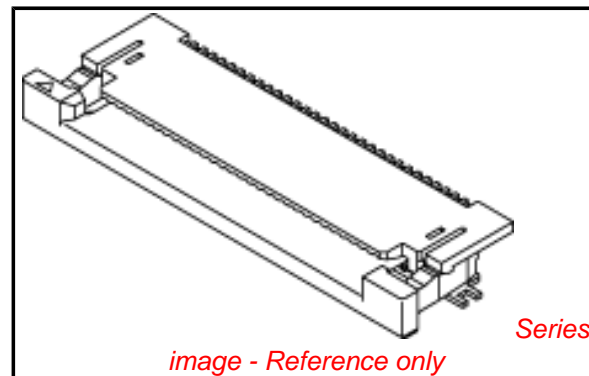
**Physical**

Circuits (Loaded) 46  
 Color - Resin Natural  
 Contact Position Top  
 Durability (mating cycles max) 20  
 Entry Angle 90° Angle  
 Flammability 94V-0  
 Mated Height (in) 0.079 In  
 Mated Height (mm) 2.00 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  
 PC Tail Length (in) 0.024 In  
 PC Tail Length (mm) 0.60 mm  
 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  
 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 Yes  
 Stackable No  
 Surface Mount Compatible (SMC) N/A  
 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

**Material Info**



*image - Reference only*

**EU RoHS**

**ELV and RoHS  
Compliant**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

Status

**Not Reviewed**

**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.

**China RoHS**



**Search Parts in this Series**

[54104Series](#)

## Reference - Drawing Numbers

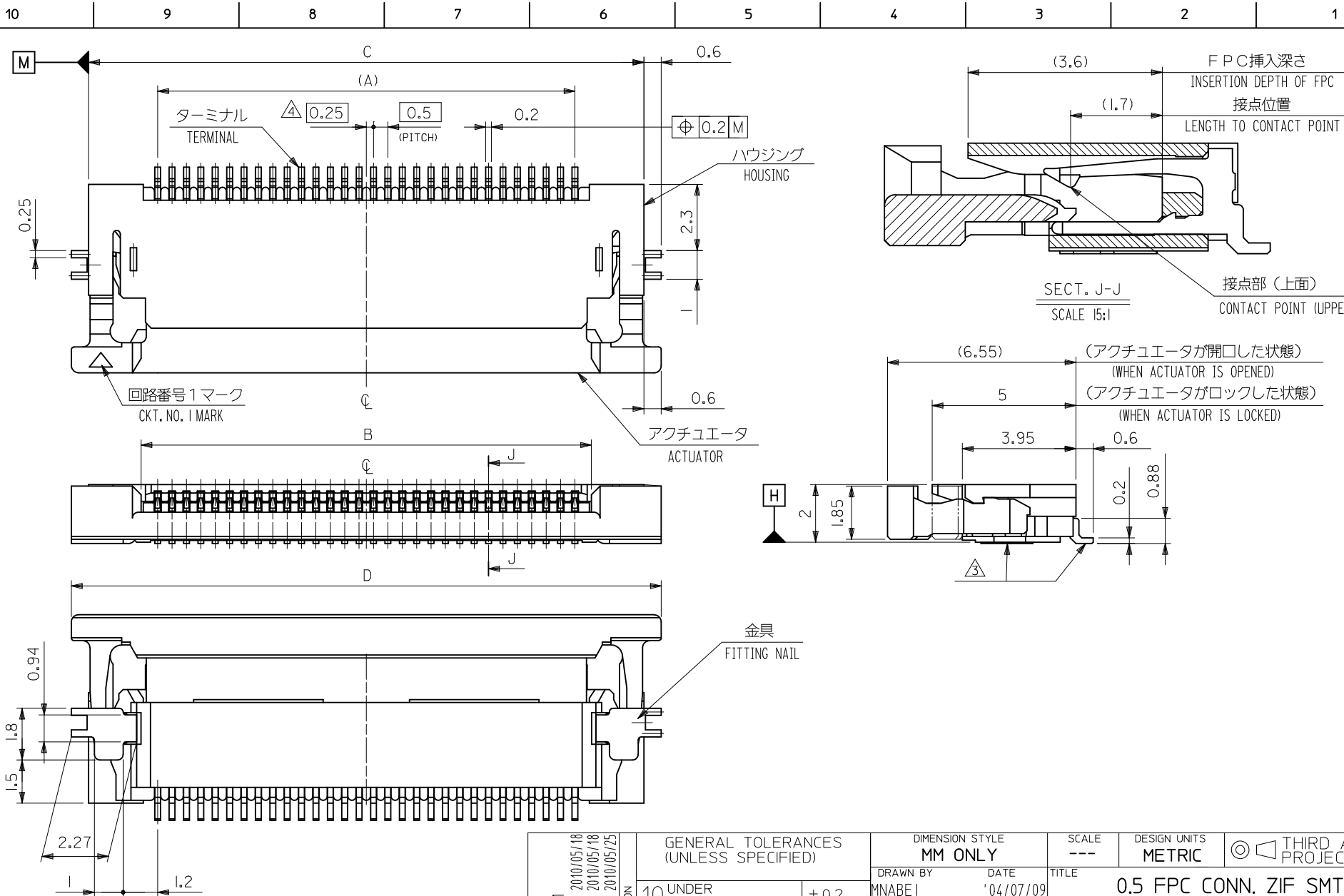
Packaging Specification  
Product Specification

SPK-54104-001  
PS-54104-071, RPS-54104-079, RPS-54104-081,  
RPS-54104-082, RPS-54104-083, RPS-54104-084,  
RPS-54104-086, RPS-54104-088, RPS-54104-089  
SD-54104-077, SD-54104-078

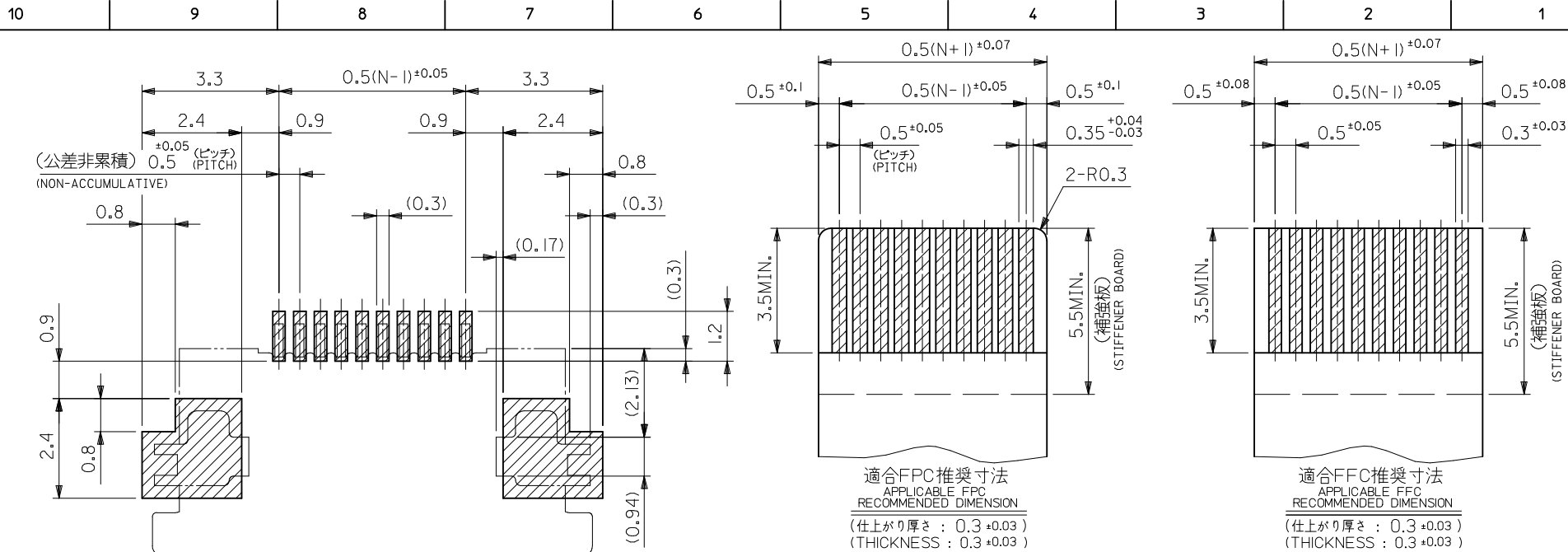
Sales Drawing

This document was generated on 06/07/2010

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<b>REVISED</b> EC NO: J2010-2281 DRWN:HYOSHINO 2010/05/18 CHKD:SHIMIZUYAMA 2010/05/18 APPR:KMORIKAWA 2010/05/25	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE ---	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	
	10 UNDER	$\pm 0.2$	DRAWN BY MNABEI	DATE '04/07/09	TITLE <b>0.5 FPC CONN. ZIF SMT R/A UPPER CONTACT -LEAD FREE-</b>			
	10 OVER 30 UNDER	$\pm 0.25$	CHECKED BY KTOJO	DATE '04/07/09	<b>MOLEX INCORPORATED</b>			
	30 OVER	$\pm 0.3$	APPROVED BY NUKITA	DATE '04/07/09	MATERIAL NO. <b>SEE SHEET 2 OF 2</b>	DOCUMENT NO. <b>SD-54104-077</b>	SHEET NO. <b>1 OF 2</b>	
ANGULAR	$\pm 3^\circ$	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								



金メッキ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。  
 RECOMMENDED PUNCHER DIRECTION: FROM CONDUCTOR SIDE TO STIFFENER BOARD SIDE.

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

コネクタ位置  
 CONNECTOR POSITION

注記 NOTES

1. 使用材料 MATERIAL

- ハウジング : 46ナイロン UL94V-0  
 HOUSING : 46NYLON  
 アクチュエータ : PPS UL94V-0  
 ACTUATOR  
 ターミナル : リン青銅(t=0.2)  
 TERMINAL : ニッケル下地 : 1.0μm MIN.  
 金メッキ : 0.14μm MIN.  
 PHOSPHOR BRONZE  
 GOLD 0.14μm MIN.  
 OVER NICKEL 1.0μm MIN.  
 PLATING  
 金具 : リン青銅、スズめっき(t=0.2)  
 FITTING NAIL PHOS-BRO, TIN-PLATED

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.54104-\*\*-29 SHOULD BE LOCKED.

△ ソルダータイル半田付け面のズレ量、および金具半田付け面のズレ量は、基準面 H に対し上方向 0.1MAX.、下方向 0.15MAX. とし、相互のバラつき量は 0.1MAX. とする。  
 MISALIGNMENT OF SOLDER TAILS AND FITTING NAILS FROM UPPER DIRECTION: 0.1MAX., LOWER DIRECTION: 0.15MAX. OFFSET BETWEEN UPPER AND LOWER 0.1MAX.

△ 偶数極に適用。  
 APPLY FOR EVEN CURCUIT.

△ バタケンはく離止め用金具  
 FITTING NAIL FOR PREVENTION OF PEELING OF P.C.B. PATTERN.

6. 本製品は54104-\*\*-39のターミナル部分金メッキ品である。

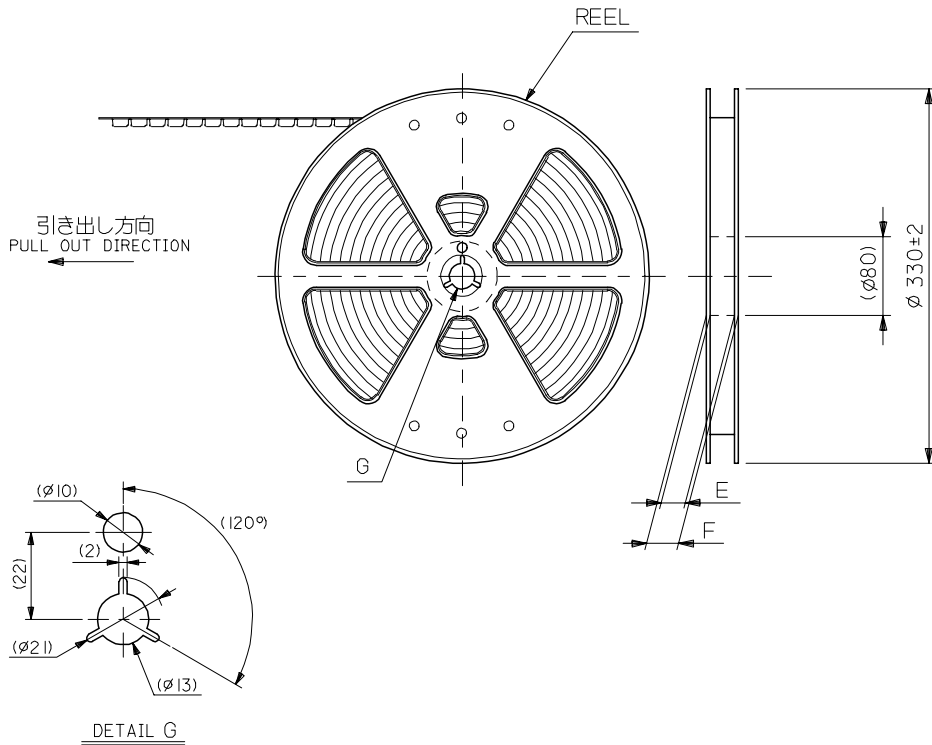
7. ELV AND RoHS適合品  
 ELV AND RoHS COMPLIANT

30.5	29.3	25.65	24.5	54104-5031	50
28.5	27.3	23.65	22.5	54104-4631	46
28.0	26.8	23.15	22.0	54104-4531	45
27.5	26.3	22.65	21.5	54104-4431	44
27.0	25.8	22.15	21.0	54104-4331	43
25.5	24.3	20.65	19.5	54104-4031	40
24.5	23.3	19.65	18.5	54104-3831	38
23.5	22.3	18.65	17.5	54104-3631	36
23.0	21.8	18.15	17.0	54104-3531	35
22.5	21.3	17.65	16.5	54104-3431	34
22.0	20.8	17.15	16.0	54104-3331	33
21.5	20.3	16.65	15.5	54104-3231	32
20.5	19.3	15.65	14.5	54104-3031	30
D	C	B	A	EMBOSSED PACKAGE オーダー番号: ORDER NO.	CKT.

CONNECTOR SERIES NO.: 54104-\*\*-29

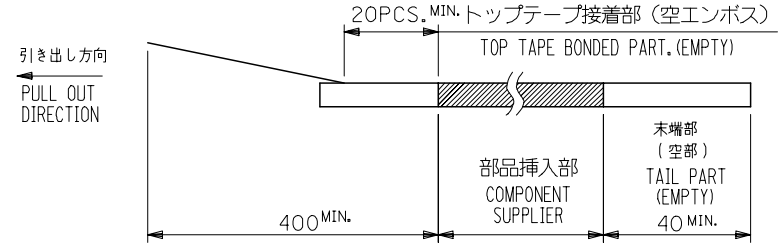
REVISED EC NO: J2010-2281 DRWN: HYOSHINO 2010/05/18 CHKD: HSHIMOTOYAMA 2010/05/18 APPR: KMORIKAWA 2010/05/25	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE		DESIGN UNITS		
				MM ONLY		---		METRIC		
		10 UNDER ±0.2		DRAWN BY MNABEI		DATE '04/07/09		TITLE		0.5 FPC CONN. ZIF SMT R/A UPPER CONTACT -LEAD FREE- MOLEX INCORPORATED
		10 OVER 30 UNDER ±0.25		CHECKED BY KTOJO		DATE '04/07/09		THIRD ANGLE PROJECTION		
30 OVER ±0.3		APPROVED BY NUKITA		DATE '04/07/09		DOCUMENT NO.				
ANGULAR ±3 °		MATERIAL NO.		SEE TABLE		SD-54104-077				
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



**NOTES**

1. 梱包数量：1500個/リール  
NUMBER OF CONNECTORS : 1500PCS/REEL
2. リードテープ長さ LEAD TAPE LENGTH

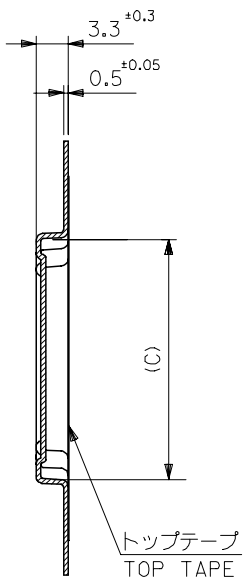


3. 材料 (MATERIAL)  
キャリアテープ (CARRIER TAPE) : ポリプロピレン (POLYPROPYLENE)  
トップテープ (TOPTAPE) : PET , PE , PEF  
リール (REEL) : ポリスチレン (POLYSTYLENE)
4. 本製品は 54104-\*\*-96 のターミナル部分金メッキ品である。

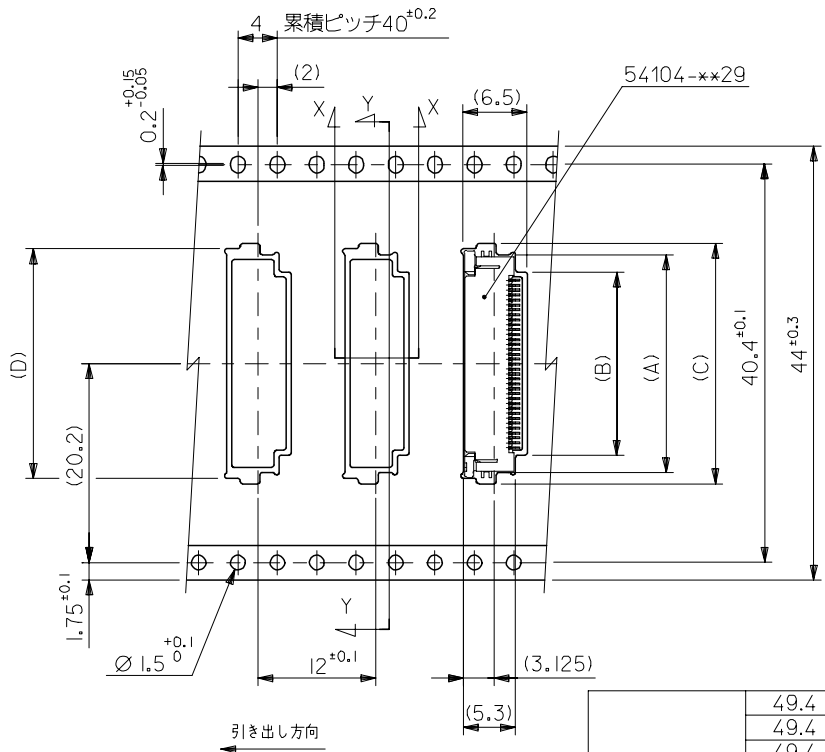
REVISED EC NO: J2007-2009 DRWN: YAMADA01 2007/01/23 CHKD: TOYODA 2007/01/25 APPR: NUKITA 2007/01/25	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± 0.2	DRAWN BY MNABEI	DATE '04/07/09	TITLE EMBOSSD TAPE PACKAGE FOR 54104-**-29 -LEAD FREE-	
	10 OVER 30 UNDER	± 0.25	CHECKED BY KTOJO	DATE '04/07/09	MOLEX INCORPORATED	
	30 OVER	± 0.3	APPROVED BY NUKITA	DATE '04/07/09		
	ANGULAR	± 3 °	MATERIAL NO. SEE CHART		DOCUMENT NO. SD-54104-078	SHEET NO. 1 OF 2
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

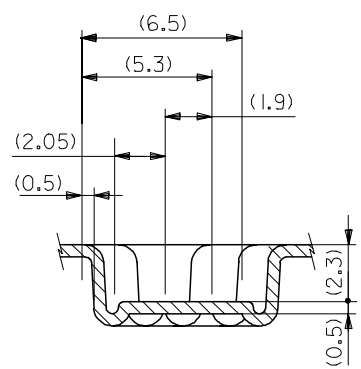
F  
E  
D  
C  
B  
A



SECT:Y-Y



引き出し方向



44	49.4	45.4	30.8	31.9	26.1	29.6	54104-5031	50
	49.4	45.4	28.8	29.9	24.1	27.6	54104-4631	46
	49.4	45.4	28.3	29.4	23.6	27.1	54104-4531	45
	49.4	45.4	27.8	28.9	23.1	26.6	54104-4431	44
	49.4	45.4	27.3	28.4	22.6	26.1	54104-4331	43
	49.4	45.4	25.8	26.9	21.1	24.6	54104-4031	40
	49.4	45.4	24.8	25.9	20.1	23.6	54104-3831	38
	49.4	45.4	23.8	24.9	19.1	22.6	54104-3631	36
	49.4	45.4	23.3	24.4	18.6	22.1	54104-3531	35
	49.4	45.4	22.8	23.9	18.1	21.6	54104-3431	34
	49.4	45.4	22.3	23.4	17.6	21.1	54104-3331	33
	49.4	45.4	21.8	22.9	17.1	20.6	54104-3231	32
	49.4	45.4	20.8	21.9	16.1	19.6	54104-3031	30
キャリアテープ幅 CARRIER TAPE WIDTH	F	E	D	C	B	A	MATERIAL NO.	CKT.

REVISED EC NO: J2007-2009 DRWN: YAMADA01 2007/01/23 CHKD: KTOYODA 2007/01/25 APPR: NUKITA 2007/01/25	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
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	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/09	MOLEX INCORPORATED SD-54104-078			
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/09				
ANGULAR	±3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART	DOCUMENT NO. SD-54104-078	SHEET NO. 2 OF 2		