

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

**Part Number:** [0533091870](#)  
**Status:** **Active**  
**Description:** 0.80mm (.031") Pitch Board-to-Board Header, Surface Mount, Dual Row, Right Angle, Lead-free, 18 Circuits

**Documents:**

<a href="#">3D Model</a>	<a href="#">Product Specification PS-52588-031 (PDF)</a>
<a href="#">Drawing (PDF)</a>	<a href="#">Product Specification PS-52588-032 (PDF)</a>
<a href="#">Product Specification PS-52465-014 (PDF)</a>	<a href="#">RoHS Certificate of Compliance (PDF)</a>

**General**

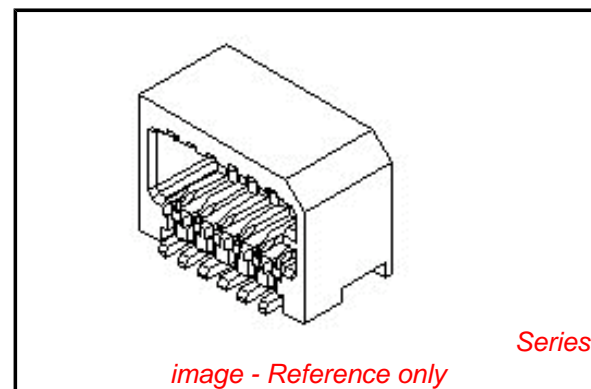
Product Family	PCB Headers
Series	<a href="#">53309</a>
Application	Board-to-Board
Product Name	N/A

**Physical**

Breakaway	No
Circuits (Loaded)	18
Circuits (maximum)	18
Color - Resin	Natural
Durability (mating cycles max)	30
First Mate / Last Break	No
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	None
Lock to Mating Part	Yes
Mated Height (in)	0.222 In, 0.262 In
Mated Height (mm)	5.65 mm, 6.65 mm
Material - Metal	Phosphor Bronze
Material - Plating Mating	Tin
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.016 In, 0.020 In
PC Tail Length (mm)	0.40 mm, 0.50 mm
PCB Locator	No
PCB Retention	None
Packaging Type	Embossed Tape on Reel
Pitch - Mating Interface (in)	0.031 In
Pitch - Mating Interface (mm)	0.80 mm
Plating min: Mating (µin)	40
Plating min: Mating (µm)	1
Plating min: Termination (µin)	40
Plating min: Termination (µm)	1
Polarized to PCB	No
Shrouded	Fully
Stackable	No
Temperature Range - Operating	-20°C to +105°C
Termination Interface: Style	Surface Mount

**Electrical**

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



*image - Reference only*

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**  
 Not Reviewed

**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**

[53309Series](#)

**Mates With**

Board-to-Board Receptacle [52465](#) , [52588](#)

## Material Info

### Reference - Drawing Numbers

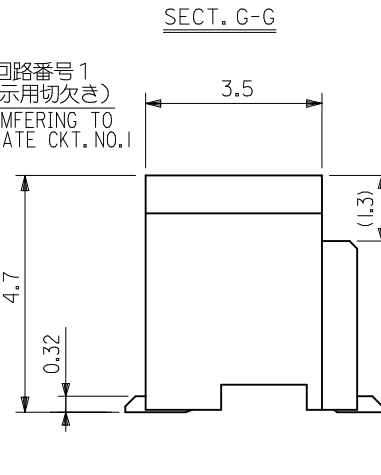
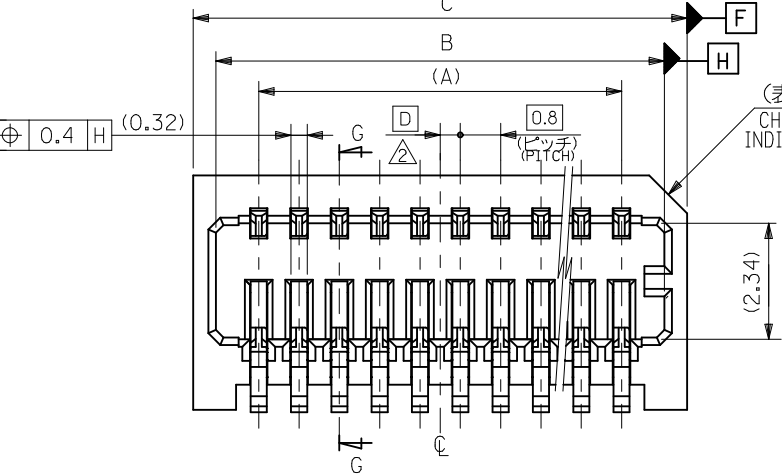
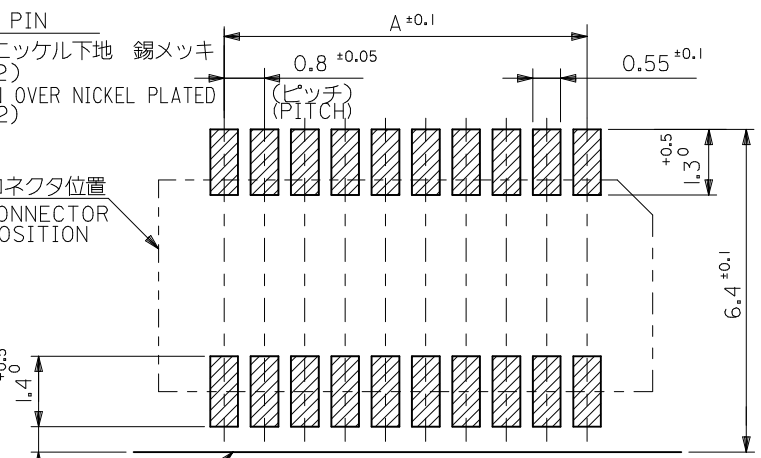
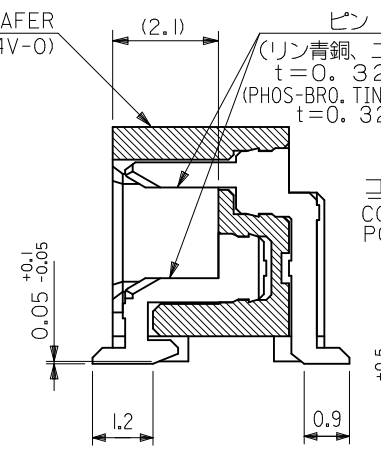
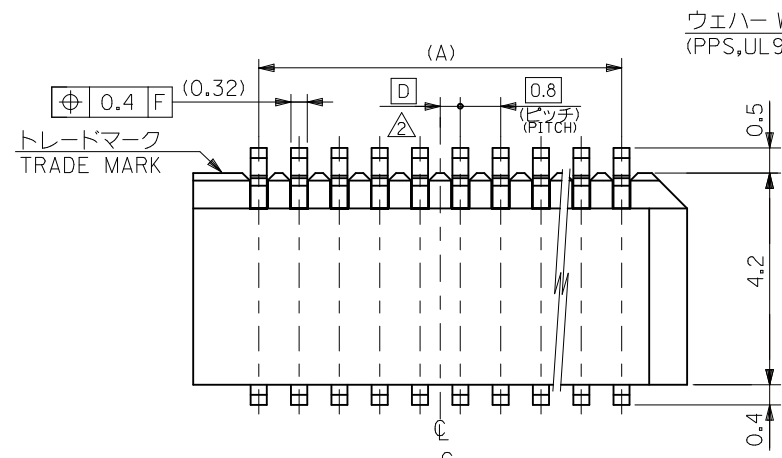
Product Specification

PS-52465-014, PS-52588-031, PS-52588-032,  
RPS-52465-042, RPS-52465-047, RPS-52465-049,  
RPS-52588-039, RPS-52588-040, RPS-52588-041  
SD-53309-011, SD-53309-012

Sales Drawing

This document was generated on 04/16/2010

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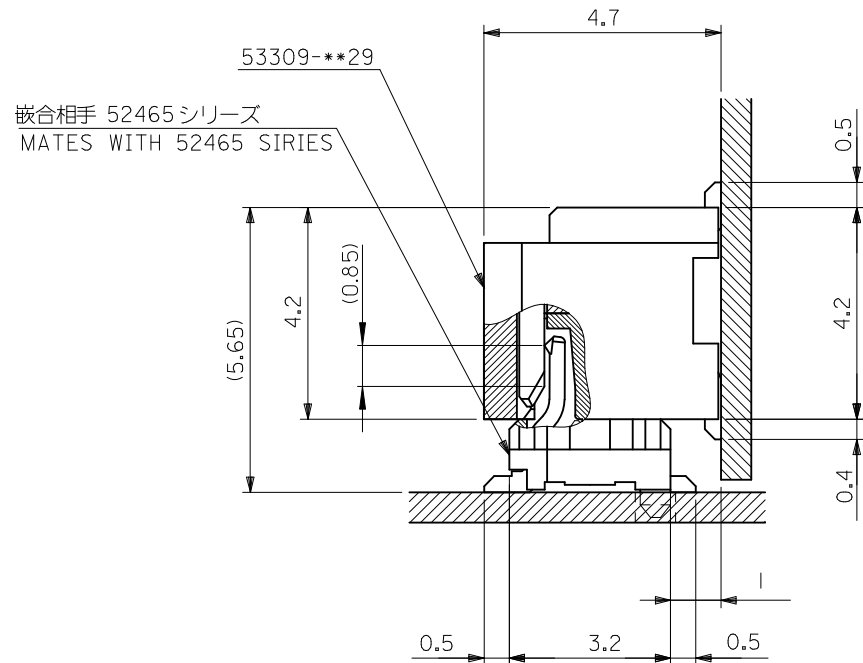
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0.8	17.0	16.1	14.4	-3829	38	
0.4	16.2	15.3	13.6	-3629	36	
0.8	15.4	14.5	12.8	-3429	34	
0.4	14.6	13.7	12.0	-3229	32	
0.8	13.8	12.9	11.2	-3029	30	
0.4	13.0	12.1	10.4	-2829	28	
0.8	12.2	11.3	9.6	-2629	26	
0.4	11.4	10.5	8.8	-2429	24	
0.8	10.6	9.7	8.0	-2229	22	
0.4	9.8	8.9	7.2	-2029	20	
0.8	9.0	8.1	6.4	-1829	18	
0.4	8.2	7.3	5.6	-1629	16	
0.8	7.4	6.5	4.8	-1429	14	
0.4	6.6	5.7	4.0	-1229	12	
53309-**29	0.8	5.8	4.9	3.2	53309-1029	10
MODEL NO.	D	C	B	A	MATERIAL NO.	極数 CKT.

注記 NOTES

1. 嵌合相手: 52465,52588 シリーズ  
MATE WITH : 52465,52588 SERIES
2. ウエハーの C から隣接するピンの C 迄の位置を示す。  
SHOW POSITION FROM C OF WAFER TO C OF ADJACENT PINS.
3. 本製品は 53309-\*\*27 の鉛フリー品である。  
THIS PRODUCT IS LEAD FREE OF 53309-\*\*27

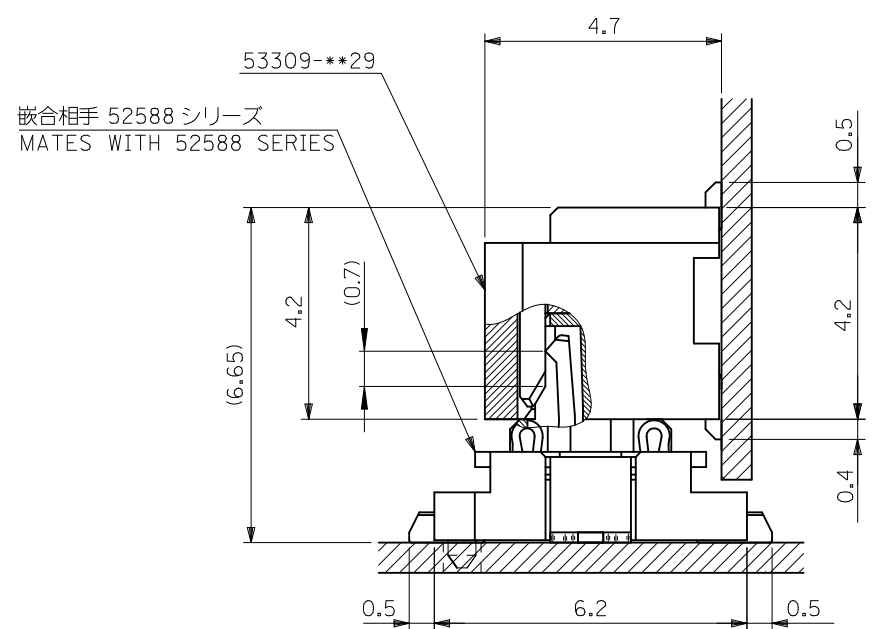
REVISED EC NO: J2010-1285 DRWN: YON002 2009/12/17 CHKD: SMARUYAMA 2009/12/17 APPR: SMARUYAMA 2009/12/17	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	±0.2	DRAWN BY M. NINOMIYA	DATE 2004/03/10	TITLE 0.8 B/B CONN. WAFER ASS'Y R/A SMT(WITHOUT BOSS)		
	10 OVER 30 UNDER	±0.25	CHECKED BY K. TOJO	DATE 2004/03/10	MOLEX INCORPORATED		
	30 OVER	±0.3	APPROVED BY M. SASAO	DATE 2004/03/10	DOCUMENT NO. SD-53309-011		
REV	DESCRIPTION	ANGULAR ±3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3	SHEET NO. 1 OF 2	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



嵌合相手 52465 シリーズ  
MATES WITH 52465 SERIES

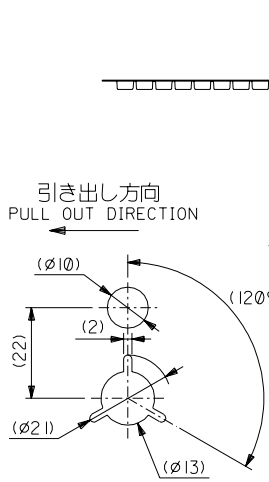
嵌合状態図 (参考)  
MATED DRAWING(REF.)



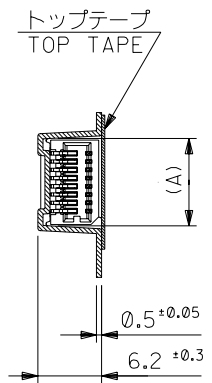
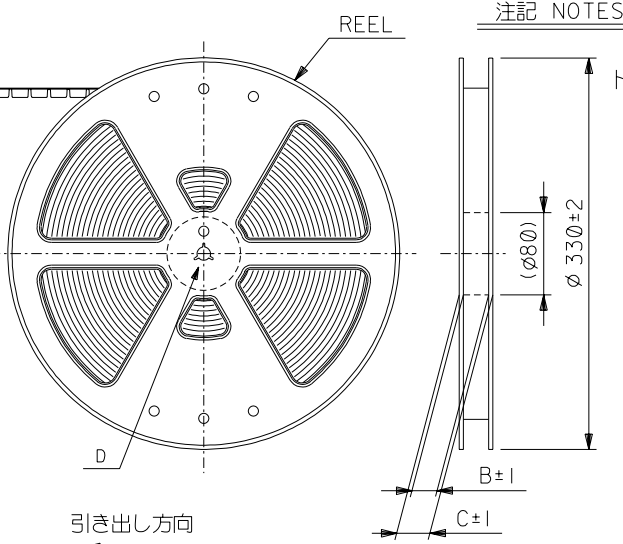
嵌合相手 52588 シリーズ  
MATES WITH 52588 SERIES

嵌合状態図 (参考)  
MATED DRAWING(REF.)

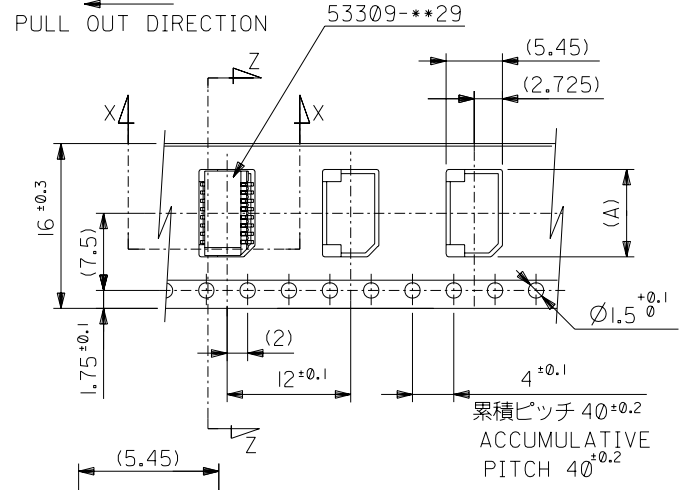
REVISED EC NO: J2010-1285 DRWN: YON002 CHK'D: SMARUYAMA APPR: SMARUYAMA	2009/12/17 2009/12/17 2009/12/17	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		10 UNDER	±0.2	DRAWN BY M. NINOMIYA	DATE 2004/03/10	TITLE 0.8 B/B CONN. WAFER ASS'Y R/A SMT(WITHOUT BOSS)				
		10 OVER 30 UNDER	±0.25	CHECKED BY K. TOJO	DATE 2004/03/10	APPROVED BY M. SASAO				
		30 OVER	±0.3	DATE 2004/03/10	MATERIAL NO. SEE SHEET 1					
ANGULAR ±3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		DOCUMENT NO. SD-53309-011			SHEET NO. 2 OF 2	



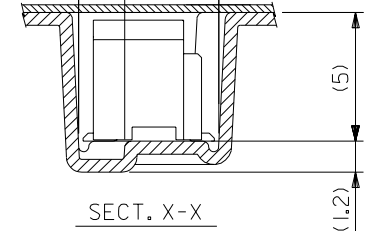
DETAIL D



SECT. Z-Z



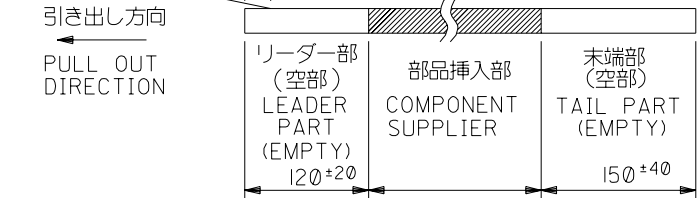
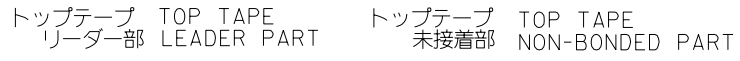
16mm幅キャリアテープ  
16mm WIDTH CARRIER TAPE



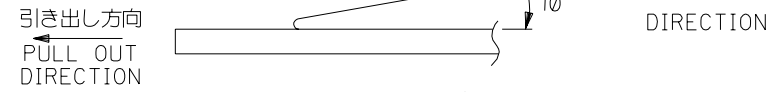
SECT. X-X

注記 NOTES

- 梱包数量：1000個/リール NUMBER OF CONNECTORS:1000PCS/REEL
- リードテープ長さ LEAD TAPE LENGTH



- トップテープの剥離強度：(剥離方向は下図参照)  
0. 1N~1. 3N {10gf~130gf} 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事。)  
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

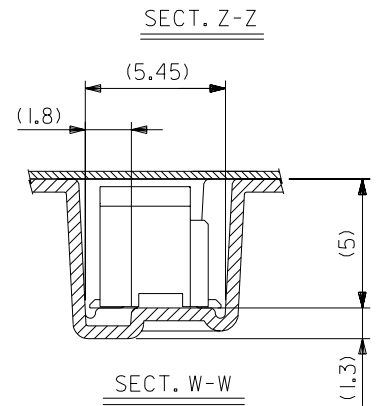
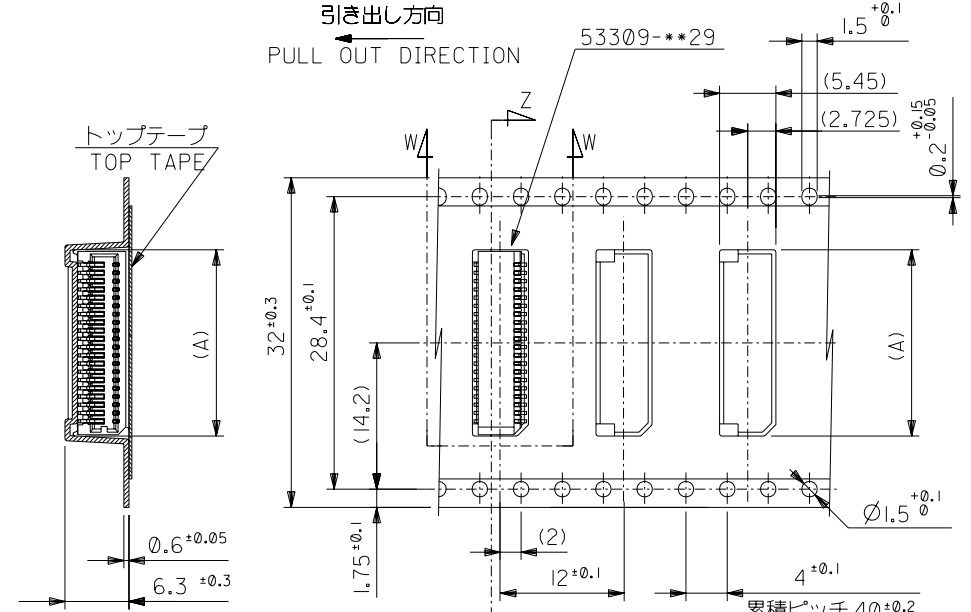
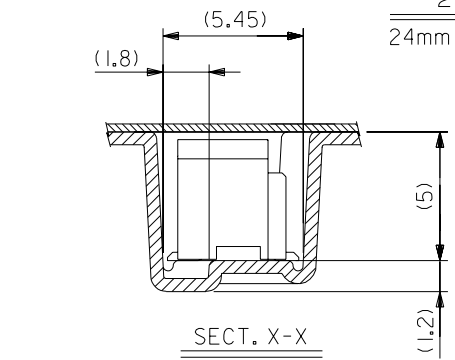
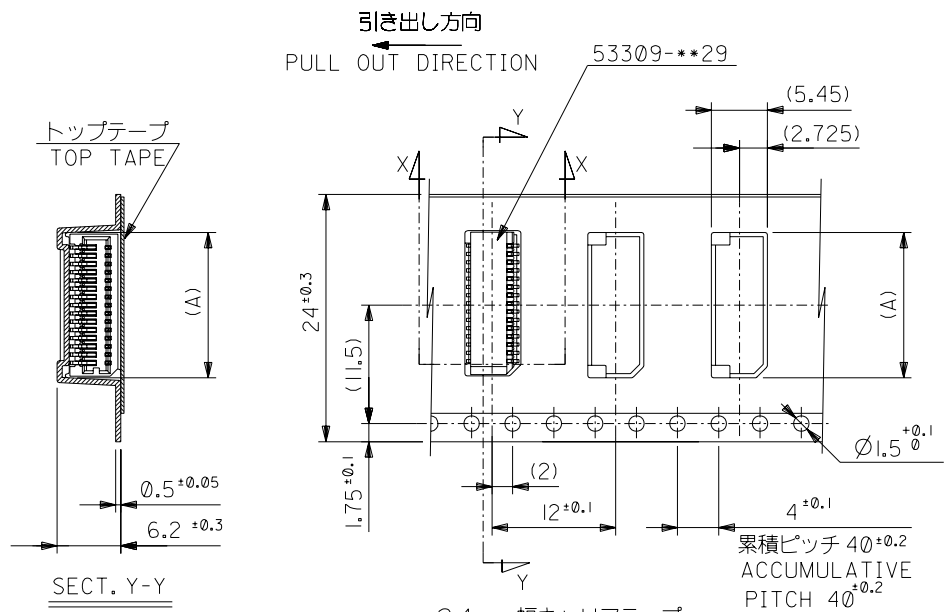


- 材料  
キャリアテープ：ポリプロピレン (PP)  
トップテープ：PET, PE, PEF  
リール：ポリスチレン (PS)  
MATERIAL  
<リサイクル材を含む>
- 本製品は 53309-\*\*91 の鉛フリー品である。  
THIS PRODUCT IS LEAD FREE OF 53309-\*\*91.

CARRIER TAPE:POLYPROPYLENE  
TOP TAPE:PET,PE,PEF  
REEL:POLYSTYRENE(PS)  
<RECYCLE MATERIAL CONTAINED>

16	21.4	17.4	9.3	53309-1870	18
			8.5	53309-1670	16
			7.7	53309-1470	14
			6.9	53309-1270	12
			6.1	53309-1070	10
キャリアテープ幅 CARRIER TAPE WIDTH	C	B	(A)	MATERIAL NO.	極数 CIRCUIT

53309-**70		材料 MATERIAL		注記参照 SEE NOTES		MATERIAL NO. 53309-1870	
MODEL NO.		仕上げ FINISH		—		REVISE ONLY ON CAD SYSTEM	
角度 ANGLE		適用電線範囲 WIRE RANGE		—		TITLE 名称 0.8 BtB Conn Wafer Assy RA SMT Without Boss Embstp Pkg	
30以上 OVER		被覆外径 INS. RANGE		—		—LEAD FREE-	
10以上 OVER 30 UNDER		DRAWN BY 04/03/10		CHK'D BY 04/03/10		DWG. NO. (SHEET 1 OF 2) REV	
未満 10 UNDER		M.N. M.NINOMIYA		K.T. K.TOJO		SD-53309-012 0	
一般公差 GENERAL TOLERANCES		記号 LTR		変更内容 REVISION RECORD		DR. 日付 DATE	
		0 新規作成 (J2004-2995) RELEASED		M.SASAO		尺度 SCALE	



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

32mm幅キャリアテープ  
32mm WIDTH CARRIER TAPE

24	29.4	25.4	16.5	53309-3670	36
			15.7	53309-3470	34
			14.9	53309-3270	32
			14.1	53309-3070	30
			13.3	53309-2870	28
			12.5	53309-2670	26
			11.7	53309-2470	24
			10.9	53309-2270	22
10.1	53309-2070	20			
キャリアテープ幅 CARRIER TAPE WIDTH	C	B	(A)	MATERIAL NO.	極数 CIRCUIT

53309-***70		M.N. K.	
MODEL NO.		04/03/10	
角度 ANGLE	+3°	DR. CHK.	日付 DATE
30以上 OVER	+0.3	DR. CHK.	日付 DATE
10以上 30未満 UNDER	+0.25	DR. CHK.	日付 DATE
未満 10 UNDER	+0.2	DR. CHK.	日付 DATE
一般公差 GENERAL TOLERANCES	記号 LTR	変更内容 REVISION RECORD	新規作成 RELEASED (J2004-2995)

32	37.4	33.4	18.1	53309-4070	40
キャリアテープ幅 CARRIER TAPE WIDTH	C	B	(A)	53309-3870	38
			MATERIAL NO.		極数 CIRCUIT

材料 MATERIAL  
SHEET 1 OF 2 参照 REFER TO SHEET 1 OF 2

仕上げ FINISH //

適用電線範囲 WIRE RANGE //

被覆外径 INS. RANGE //

DRAWN BY 04/03/10 M.NINOMIYA  
CHK'D BY 04/03/10 K.TOJO

APP'D BY 04/03/10 M.SASAO

尺 度 SCALE //

材料 MEX  
MOLEX-JAPAN CO.,LTD.  
日本モレックス株式会社

REVISE ONLY ON CAD SYSTEM

TITLE 名称  
0.8 BtB Wafer Assy  
RA SMT Without Boss  
Embstp Pkg  
-LEAD FREE-

DWG. NO. (SHEET 2 OF 2) REV 0  
SD-53309-012