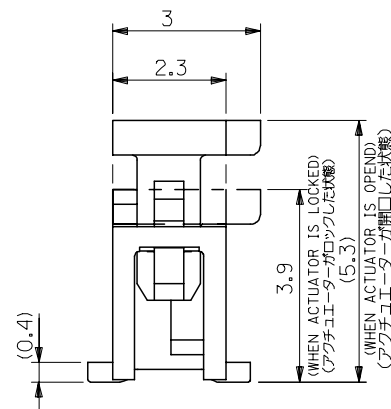
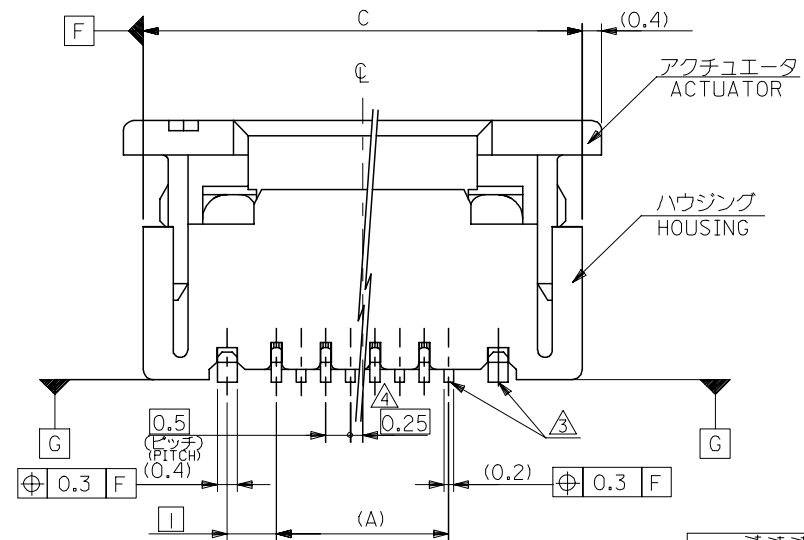
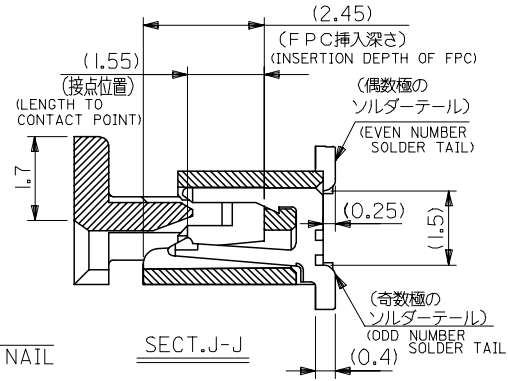
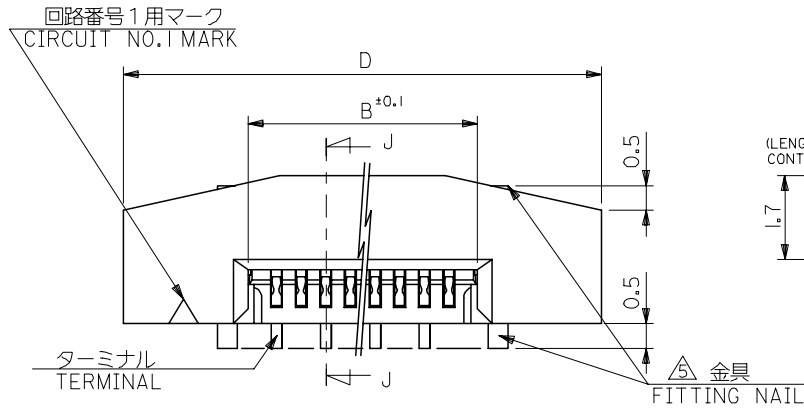


# 25-05185

## Molex #: 52559-0652 (see page 4)

3 2 1

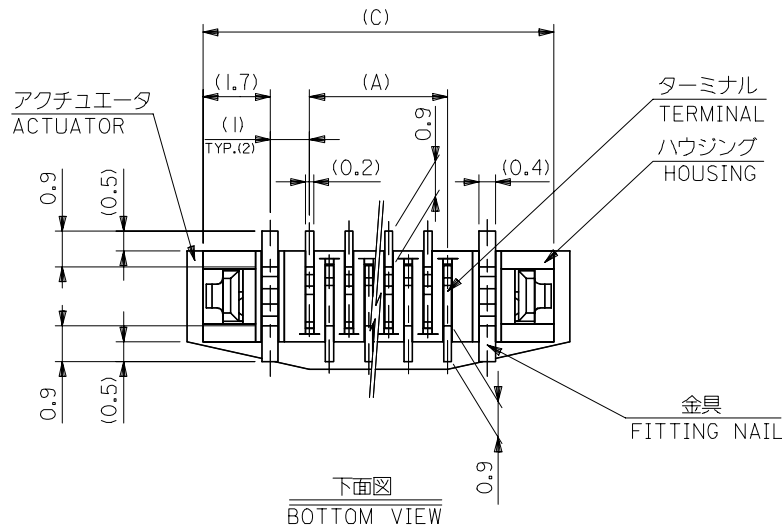


### 注記 NOTES

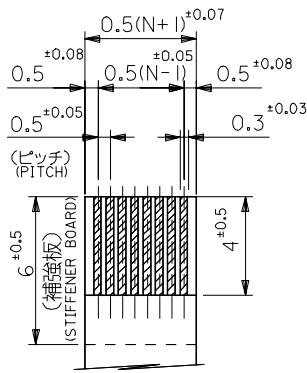
- 使用材料 : MATERIAL
  - ハウジング HOUSING : 46NYLON UL94V-0
  - アクチュエータ ACTUATOR : PPS UL94V-0
  - ターミナル TERMINAL : リン青銅 (t=0.2) PHOS-BRO
  - 接点部 金メッキ 0.1マイクロメートル以上 CONTACT GOLD 0.1 MICROMETER MINIMUM
  - 半田付け部 錫メッキ 1.0マイクロメートル以上 TAIL TIN 1.0 MICROMETER MINIMUM
  - ニッケル下地 1.0マイクロメートル以上 NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM
  - 金具 FITTING NAIL : リン青銅 (t=0.4) PHOS-BRO
  - 錫メッキ 1.0マイクロメートル以上 TIN 1.0 MICROMETER MINIMUM
  - ニッケル下地 1.0マイクロメートル以上 NICKEL (UNDER PLATING) 1.0 MICROMETER MINIMUM
- 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. 52559-\*\*79 SHOULD BE LOCKED.  
△ソルダーテール半田付け面のスレ量、及び金具半田付け面のスレ量は、基準面 G に対し上方向 0.05 MAX. , 下方向 0.15 MAX. とする。  
MISALIGNMENT OF SOLDER TAILS AND FITTING NAILS FROM G UPPER DIRECTION: 0.05 MAX. , LOWER DIRECTION: 0.15 MAX.
- △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 P.C.B. PATTERN.
- △R.O. 3は、FPCの導体部にかからないこと。  
R.O.3 MUST NOT BE OVERLAPPED TO PATTERN OF FPC.

MODEL NO. 52559-\*\*79

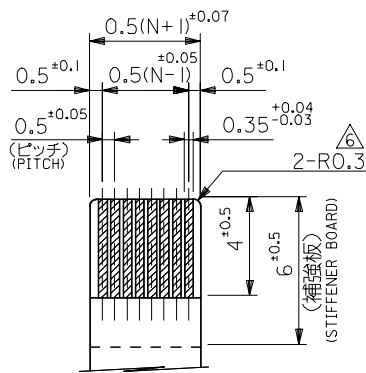
RELEASED EC NO: J2005-0174 DRAWN: MNABE1 2004/07/14 CHKD: KTOJO 2004/07/14 APPR: NUKITA 2004/07/14 REV 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	10 UNDER	±0.2	DRAWN BY MNABE1	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF.			
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13	-LEAD FREE-			
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	molex MOLEX INCORPORATED			
	ANGULAR	±3 °	MATERIAL NO. SEE CHART	DOCUMENT NO. SD-52559-048	SHEET NO. 1 OF 2			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A 3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



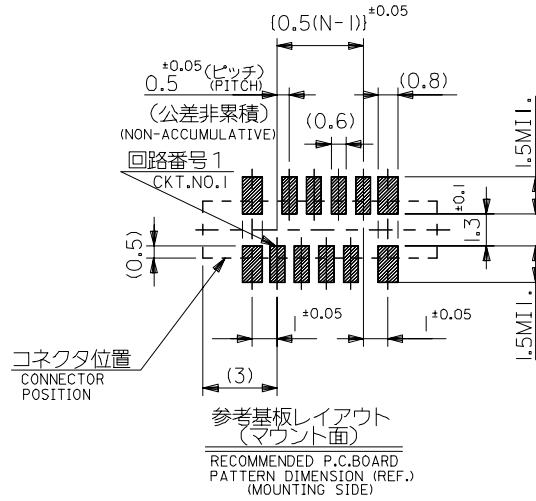
下面図  
BOTTOM VIEW



適合FPC推奨寸法  
APPLICABLE FPC  
RECOMMENDED DIMENSION.  
(仕上がり厚さ: 0.3<sup>+0.05</sup>)  
(THICKNESS: 0.3<sup>+0.05</sup>)



適合FPC推奨寸法  
APPLICABLE FPC  
RECOMMENDED DIMENSION.  
(仕上がり厚さ: 0.3<sup>+0.05</sup>)  
(THICKNESS: 0.3<sup>+0.05</sup>)



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。  
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致します。

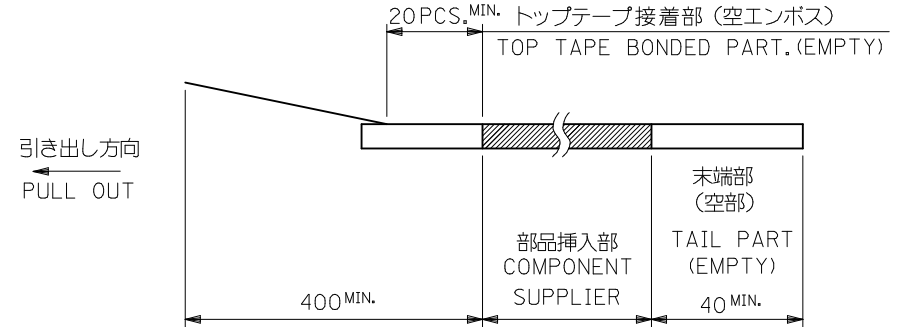
ABOUT FPC:  
RECOMMENDED PUNCHER DIRECTION: FROM CONDUCTOR SIDE TO STIFFENER BOARD SIDE.  
RECOMMENDED MATERIAL:  
STIFFENER FILM: POLYIMIDE  
BONDING AGENT: THERMOSETTING BONDING AGENT

25.7	24.9	20.65	19.5	52559-4079	40
23.7	22.9	18.65	17.5	-3679	36
22.2	21.4	17.15	16.0	-3379	33
21.7	20.9	16.65	15.5	-3279	32
21.2	20.4	16.15	15.0	-3179	31
20.7	19.9	15.65	14.5	-3079	30
20.2	19.4	15.15	14.0	-2979	29
19.7	18.9	14.65	13.5	-2879	28
19.2	18.4	14.15	13.0	-2779	27
18.7	17.9	13.65	12.5	-2679	26
18.2	17.4	13.15	12.0	-2579	25
17.7	16.9	12.65	11.5	-2479	24
17.2	16.4	12.15	11.0	-2379	23
16.7	15.9	11.65	10.5	-2279	22
16.2	15.4	11.15	10.0	-2179	21
15.7	14.9	10.65	9.5	-2079	20
15.2	14.4	10.15	9.0	-1979	19
14.7	13.9	9.65	8.5	-1879	18
14.2	13.4	9.15	8.0	-1779	17
13.7	12.9	8.65	7.5	-1679	16
13.2	12.4	8.15	7.0	-1579	15
12.7	11.9	7.65	6.5	-1479	14
12.2	11.4	7.15	6.0	-1379	13
11.7	10.9	6.65	5.5	-1279	12
11.2	10.4	6.15	5.0	-1179	11
10.7	9.9	5.65	4.5	-1079	10
10.2	9.4	5.15	4.0	-0979	9
9.7	8.9	4.65	3.5	-0879	8
8.7	7.9	3.65	2.5	52559-0679	6
D	C	B	(A)	MATERIAL NO.	極数

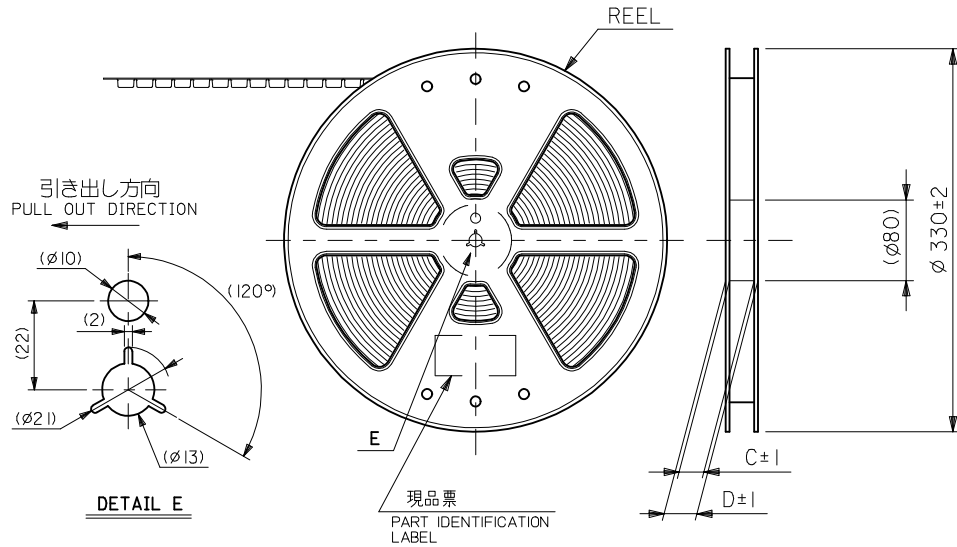
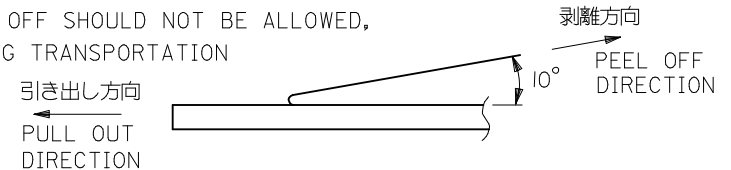
RELEASED EC NO: J2005-0174 DRAWN: MNABE 2004/07/14 CHKD: KTOJO 2004/07/14 APPR: NUKITA 2004/07/14 REV: 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	MODEL NO. DESIGN UNITS METRIC	52559-**79
	10 UNDER	±0.2	DRAWN BY MNABE1	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF.		
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13	-LEAD FREE-		
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	MOLEX INCORPORATED		
ANGULAR ±3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART	DOCUMENT NO. SD-52559-048	SHEET NO. 2 OF 2	
SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

注記 NOTES

- 製品番号 52559-\*\*79 の梱包状態はアクチュエータがロックした状態とする。  
 詳細寸法については 製品単体図面を参照下さい。  
 IN THE PACKAGE,ACTUATOR OF PART NO.52559-\*\*79 SHOULD BE LOCKED  
 RE DETAILED DIMENSIONS,SEE ASSY DRAWING
- 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



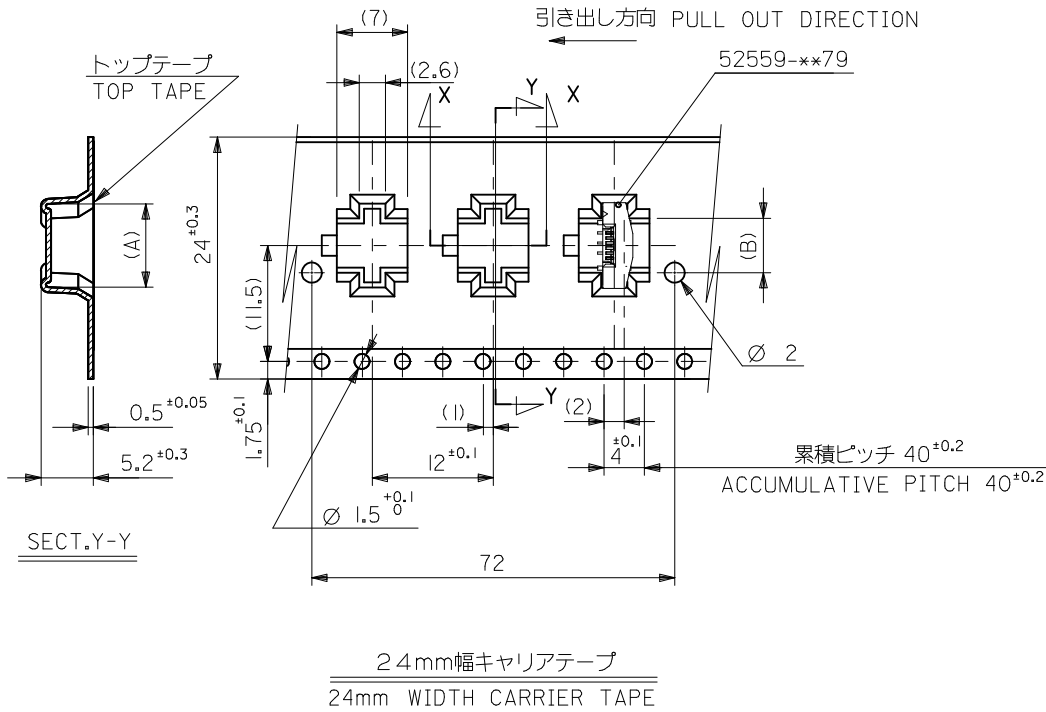
5. 材料 キャリアテープ：ポリプロピレン (PP)  
 トップテープ：PET, PE, PEF  
 リール：ポリスチレン (PS) <リサイクル材を含む>

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

6. 本製品は 52559-\*\*53 のエンボステープ違い品である。  
 THIS PRODUCT IS EMBOSSED TAPE DIFFERENCE ARTICLE OF 52559-\*\*53.

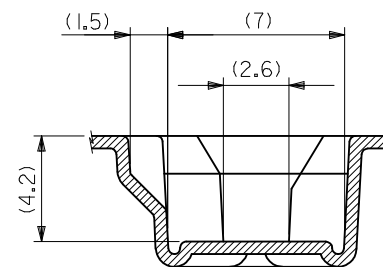
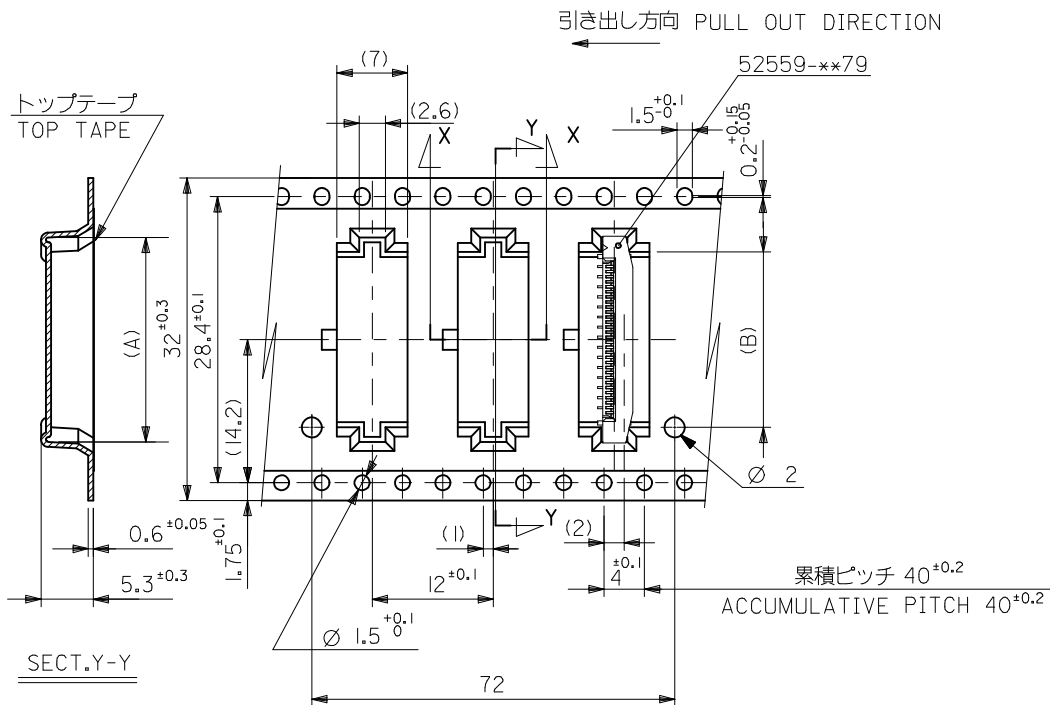
7. 本製品は乾燥剤入り、ハイバリア梱包仕様である。  
 THIS PRODUCT IS HIGH BARRIER PACKAGE WITH DESICCANT.

REVISED EC NO: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	52559-**52	MODEL NO.
	10 UNDER ±0.2		DRAWN BY MNABEI DATE '04/07/13		TITLE	THIRD ANGLE PROJECTION	
	10 OVER 30 UNDER ±0.25		CHECKED BY KTOJO DATE '04/07/13		0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-		
	30 OVER ±0.3		APPROVED BY NUKITA DATE '04/07/13		MOLEX INCORPORATED		
ANGULAR ±3 °		MATERIAL NO. SEE SHEET 2-4		DOCUMENT NO. SD-52559-049		SHEET NO. 1 OF 4	
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					



24	29.4	25.4	14.4	17.3	52559-2452	24		
			13.9	16.8	52559-2352	23		
			12.9	15.8	52559-2152	21		
			12.4	15.3	52559-2052	20		
			10.9	13.8	52559-1752	17		
			10.4	13.3	52559-1652	16		
			9.9	12.8	52559-1552	15		
			9.4	12.3	52559-1452	14		
			8.4	11.3	52559-1252	12		
			7.4	10.3	52559-1052	10		
6.9	9.8	52559-0952	9					
5.4	8.3	52559-0652	6					
キャリアテープ幅 CARRIER TAPE WIDTH			D	C	(B)	(A)	MATERIAL NO.	CIRCUIT NO.

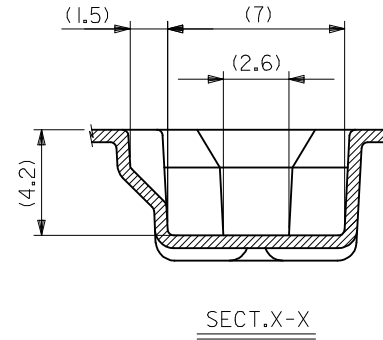
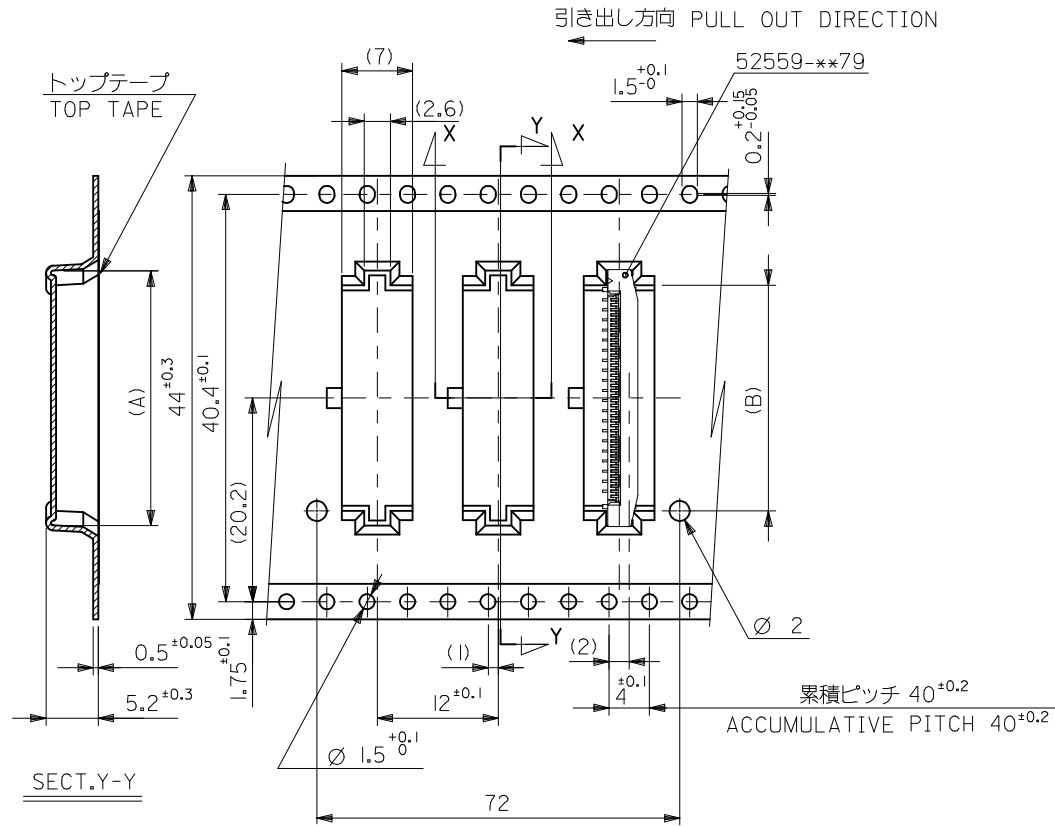
<b>REVISED</b> EC NO.: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		52559-**-52 MODEL NO.	
	10 UNDER	±0.2	DRAWN BY MNABEI	DATE '04/07/13	TITLE 0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-			
	10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13	MOLEX INCORPORATED			
	30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	DOCUMENT NO. SD-52559-049			
	ANGULAR ±3 °		MATERIAL NO. SEE TABLE		SHEET NO. 2 OF 4			
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						



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

32	37.4	33.4	18.4	21.3	52559-3252	32
			17.4	20.3	52559-3052	30
			16.4	19.3	52559-2852	28
			15.9	18.8	52559-2752	27
			15.4	18.3	52559-2652	26
キャリアテープ幅 CARRIER TAPE WIDTH	D	C	(B)	(A)	MATERIAL NO.	CIRCUIT NO.

REVISED EC NO.: J2009-2061 DRWN:TKGN 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE ---	52559-**52	MODEL NO.	
		10 UNDER	±0.2	DRAWN BY MNABEI	DATE '04/07/13	0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-		
		10 OVER 30 UNDER	±0.25	CHECKED BY KTOJO	DATE '04/07/13			
		30 OVER	±0.3	APPROVED BY NUKITA	DATE '04/07/13	MOLEX MOLEX INCORPORATED	DOCUMENT NO. SD-52559-049	SHEET NO. 3 OF 4
G	REV	ANGULAR ±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			



44mm幅キャリアテープ  
44mm WIDTH CARRIER TAPE

44	49.4	45.4	22.4	25.3	52559-4052	40
キャリアテープ幅 CARRIER TAPE WIDTH	D	C	(B)	(A)	52559-3652	36
					MATERIAL NO.	CIRCUIT NO.

REVISED EC NO.: J2009-2061 DRWN:TKON 2009/05/20 CHKD:HMATSUMOTO 2009/05/21 APPR:NUKITA 2009/05/21	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---		52559-**-52 MODEL NO.	
	10 UNDER	±0.2	DRAWN BY	DATE	TITLE			
	10 OVER 30 UNDER	±0.25	MNABEI	'04/07/13	0.5 FPC CONN ASSY ZIF FOR SMT EMBSTP PKG -LEAD FREE-			
	30 OVER	±0.3	CHECKED BY	DATE				
ANGULAR ±3 °		APPROVED BY		DATE	MOLEX INCORPORATED MOLEX			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		NUKITA		'04/07/13				
		MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
		SEE TABLE		SD-52559-049		4 OF 4		
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						



PRODUCT SPECIFICATION



LANGUAGE  
JAPANESE  
ENGLISH

【1. 適用範囲 SCOPE】

本仕様書は、 \_\_\_\_\_ 殿 に納入する  
0.5mmピッチ FPC用コネクタ について規定する。

This specification covers the 0.5mm PITCH FPC CONNECTOR series.

【2. 製品名称及び型番 PRODUCT NAME AND PART NUMBER】

製品名称 Product Name	製品型番 Parts Number
ハウジング アッセンブリ (無鉛) Housing Assembly (STRAIGHT TYPE) LEAD FREE	52559-**79
52559-**79テーピング梱包品 (無鉛) (乾燥剤入り、ハイバリア梱包) LEAD FREE Embossed Tape Package for 52559-**79 (High barrier package including Desiccant)	52559-**52

\*\* : 図面参照 Refer to the drawing.

REV.	A	B	C	D	E	F													
SHEET	1-10	1-10	1-10	1-9	1-9	1-10													
REVISE ON PC ONLY							TITLE: 0.5mm PITCH FPC CONN. -LEAD FREE- 製品仕様書												
<b>F</b>	変更 REVISED J2009-1711 2009/01/09 T.NAKAGAWA						THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												
REV.	DESCRIPTION						WRITTEN BY: M.NABEI	CHECKED BY: K.TOJO	APPROVED BY: N.UKITA	DATE: YR/MO/DAY 2004/07/14									
DESIGN CONTROL J							STATUS					FILE NAME PS52559013.doc	SHEET 1 OF 10						
DOCUMENT NUMBER <b>PS-52559-013</b>																			



PRODUCT SPECIFICATION



LANGUAGE

JAPANESE  
ENGLISH

【3. 定格 RATINGS】

項目 Item	規格 Standard	
最大許容電圧 Rated Voltage (MAXIMUM)	50 V	[AC(実効値 rms) / DC]
許容電流 Rated Current	0.5 A	
使用温度範囲 Ambient Temperature Range. (Operating and Non-operating)	-20°C ~ +85°C*1 *2	
防湿梱包開梱後の推奨保管条件*3 Storage condition after opening the Humidity Prevention package 52559-**52に 適用	温度 Temperature	-5°C~+35°C
	湿度 Humidity	70%R.H.以下(但し結露なきこと) 70%R.H.MAX.(No condensation)

\*1: 通電による温度上昇分も含む。

Including terminal temperature rise.

\*2: 適合FPCも本使用温度範囲を満足すること。

FPC must be meet temperature range specified in this standard.

\*3: 開梱後の取り扱いについては、本書の取り扱いの注意事項を参照下さい。

Refer to 【Instruction upon usage】.

REVISE ON PC ONLY

**F**

SEE SHEET 1 OF 10

REV.

DESCRIPTION

TITLE:

0.5mm PITCH FPC CONN.

-LEAD FREE-

製品仕様書

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

DOCUMENT NUMBER

**PS-52559-013**

FILE NAME

PS52559013.doc

SHEET

2 OF 10

EN-37-1(019)





PRODUCT SPECIFICATION



LANGUAGE

JAPANESE  
ENGLISH

【4. 性能 PERFORMANCE】

4 - 1. 電気的性能 Electrical Performance

項目 Item		条件 Condition	規格 Standard
4-1-1	接触抵抗 Contact Resistance	適合FPCを嵌合させ、開放電圧 20mV以下、短絡電流 10mAにて測定する。 (JIS C5402 5.4) Mate applicable FPC, measure by dry circuit, 20mV MAXIMUM, 10mA. (JIS C5402 5.4)	20 milliohm MAXIMUM
4-1-2	絶縁抵抗 Insulation Resistance	適合FPCを嵌合させ、隣接するターミナル間及びターミナル、アース間に、DC 500Vを印加し測定する。 (JIS C5402 5.2/MIL-STD-202 試験法 302) Mate applicable FPC, apply 500V DC between adjacent terminal or ground. (JIS C5402 5.2/MIL-STD-202 Method 302)	50 megohm MINIMUM
4-1-3	耐電圧 Dielectric Strength	適合FPCを嵌合させ、隣接するターミナル間及びターミナル、アース間に、AC 250V (実効値) を 1分間印加する。 (JIS C5402 5.1/MIL-STD-202 試験法 301) Mate applicable FPC, apply 250V AC (rms) for 1 minute Between adjacent terminal or ground. (JIS C5402 5.1/MIL-STD-202 Method 301)	異状なきこと No Breakdown

4 - 2. 機械的性能 Mechanical Performance

項目 Item		条件 Condition	規格 Standard
4-2-1	アクチュエータ挿抜力 Actuator and Withdrawal Force	適合FPCを嵌合させ、アクチュエータを毎分 25±3mmの速さで挿入、抜去を行う。 Mate applicable FPC and Insert and withdraw actuator at the speed rate of 25±3mm/minute.	第6項参照 Refer to paragraph 6
4-2-2	FPC保持力 FPC Retention Force	アクチュエータ挿入状態にて、毎分 25±3mmの速さでFPCを引き抜く。 Insert the actuator, pull the FPC at the speed rate of 25±3mm/minute.	第7項参照 Refer to paragraph 7
4-2-3	端子保持力 Terminal / Housing Retention Force	端子を毎分 25±3mmの速さで引張る。 Apply axial pull out force at the speed rate of 25±3mm/minute on the terminal assembled in the housing.	3.0 N {0.30 kgf} MINIMUM
4-2-4	金具保持力 Fitting nail/ Housing Retention Force	金具を毎分 25±3mmの速さで引張る。 Apply axial pull out force at the speed rate of 25±3mm/minute on the fitting nail assembled in the housing.	3.0 N {0.30 kgf} MINIMUM

REVISE ON PC ONLY

F

SEE SHEET 1 OF 10

REV.

DESCRIPTION

TITLE:

0.5mm PITCH FPC CONN.

-LEAD FREE-

製品仕様書

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LANGUAGE

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ENGLISH

4-3. その他 Environmental Performance and Others

項目 Item		条件 Condition	規格 Standard	
4-3-1	アクチュエータ 繰返し動作 Repeated Actuator Insertion / Withdrawal	無通電状態にて、1分間に10回以下の速さで挿入、抜去を20回繰り返す。 Insert and withdraw actuator up to 20 cycles at the speed rate of less than 10 cycle per minute.	接触抵抗 Contact Resistance	40 milliohm MAXIMUM
4-3-2	温度上昇 Temperature Rise	適合FPCを嵌合させ、最大許容電流を通電し、コネクタの温度上昇分を測定する。 (UL 498) Carrying rated current load. (UL 498)	温度上昇 Temperature Rise	30 °C MAXIMUM
4-3-3	耐振動性 Vibration	DC 1mA通電状態にて、嵌合軸を含む互いに垂直な3方向に掃引割合 10~55~10Hz/分、全振幅 1.5mmの振動を各2時間加える。 (MIL-STD-202 試験法 201) Amplitude : 1.5mm P-P Sweep time : 10~55~10Hz in 1 minute Duration : 2 hours in each X, Y, Z axes (MIL-STD-202 Method 201)	外観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
			瞬断 Discontinuity	1.0 microsecond MAXIMUM
4-3-4	耐衝撃性 Shock	DC 1mA通電状態にて、嵌合軸を含む互いに垂直な6方向に 490m/s <sup>2</sup> {50G}の衝撃を各3回加える。 (JIS C60068-2-27/MIL-STD-202 試験法 213) 490m/s <sup>2</sup> {50G}, 3 strokes in each X,Y,Z axes. (JIS C60068-2-27/MIL-STD-202 Method 213)	外観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
			瞬断 Discontinuity	1.0 microsecond MAXIMUM
4-3-5	耐熱性 Heat Resistance	適合FPCを嵌合させ、85±2°Cの雰囲気中に96時間放置後取り出し、1~2時間室温に放置する。 (JIS C60068-2-2/MIL-STD-202 試験法 108) 85±2°C, 96 hours (JIS C60068-2-2/MIL-STD-202 Method 108)	外観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
4-3-6	耐寒性 Cold Resistance	適合FPCを嵌合させ、-40±2°Cの雰囲気中に96時間放置後取り出し、1~2時間室温に放置する。 (JIS C60068-2-1) -40±2°C, 96 hours (JIS C60068-2-1)	外観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM

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項 目 Item		条 件 Condition	規 格 Standard	
4-3-7	耐 湿 性 Humidity	適合FPCを嵌合させ、60±2℃、 相対湿度 90~95%の雰囲気中に 96時間 放置後取り出し、1~2時間室温に放置する。 (JIS C60068-2-3/MIL-STD-202 試験法103)  Temperature : 60±2℃ Relative Humidity : 90~95% Duration : 96hours (JIS C60068-2-3/MIL-STD-202 Method 103)	外 観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
			耐電圧 Dielectric Strength	4-1-3項満足のこと Must meet 4-1-3
			絶縁抵抗 Insulation Resistance	20 megohm MINIMUM
4-3-8	温度サイクル Temperature Cycling	適合FPCを嵌合させ、-55℃に 30分、 +85℃に 30分、これを 1サイクルとし、 5サイクル繰り返す。但し、温度移行時間は 1時間以内とする。試験後、1~2時間室温に 放置する。 (JIS C0025)  5 cycles of : a) -55℃ 30minutes b) +85℃ 30minutes (JIS C0025)	外 観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
4-3-9	塩水噴霧 Salt Spray	適合FPCを嵌合させ、35±2℃にて 5±1%重量比の塩水を 48±4時間噴霧し、 試験後、常温で水洗いした後、室温で 乾燥させる。 (JIS C5028/MIL-STD-202 試験法101)  48±4 hours exposure to a salt spray from the 5±1% solution at 35±2℃. (JIS C5028/MIL-STD-202 Method 101)	外 観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
4-3-10	亜硫酸ガス SO <sub>2</sub> Gas	適合FPCを嵌合させ、40±2℃にて 50±5ppmの亜硫酸ガス中に 24時間放置する。  24hours exposure to 50±5ppm. SO <sub>2</sub> gas at 40±2℃.	外 観 Appearance	異常なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM

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項 目 Item		条 件 Condition	規 格 Standard	
4-3-11	耐アンモニア性 NH <sub>3</sub> Gas	適合FPCを嵌合させ、濃度 28%のアンモニア水を入れた容器中に 40分間放置する。 (1 IIに対して 25mlの割合) 40 minutes exposure to NH <sub>3</sub> gas evaporating from 28% Ammonia solution.	外 観 Appearance	異状なきこと No damage
			接触抵抗 Contact Resistance	40 milliohm MAXIMUM
4-3-12	半田付け性 Solderability	端子先端より0.2mm、金具先端より0.2mmの位置まで245±3℃の半田に 3±0.5秒浸す。 Dip terminal and fitting nail (held at 245±3℃) up to 0.2mm from the tip for 3±0.5 seconds	濡れ性 Solder Wetting	浸漬面積の90%以上 90% of immersed area must show no voids, pin holes
4-3-13	半田耐熱性 Resistance to Soldering Heat	(リフロー時) 第8項の条件を2回繰り返す。 (When reflowing) Repeat paragraph 8, condition two times.	外 観 Appearance	端子ガタ、割れ等 異状なきこと No Damage
		(手半田時) 端子先端より0.2mm、金具先端まで0.2mmの位置まで、370~400℃の半田ゴテにて最大5秒加熱する。 Dip terminal and fitting nail (held at 370~400℃) up to 0.2mm from the tip for 5 seconds MAX.		

( ) : 参考規格 Reference Standard

{ } : 参考単位 Reference Unit

【5. 外観形状、寸法及び材質 PRODUCT SHAPE, DIMENSIONS AND MATERIALS】

図面参照 Refer to the drawing.

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【6. アクチュエータ挿抜力 ACTUATOR INSERTION AND WITHDRAWAL FORCE】

極数 No. of CKT.	単位 UNIT	挿入力 (最大値) INSERTION FORCE (MAXIMUM)			抜去力 (最大値) WITHDRAWAL FORCE (MAXIMUM)		
		初回 1st	6回目 6th	20回目 20th	初回 1st	6回目 6th	20回目 20th
6	N {kgf}	30.3 {3.1}	28.4 {2.9}	28.4 {2.9}	39.2 {4.0}	35.2 {3.6}	35.2 {3.6}
9	N {kgf}	33.3 {3.4}	31.3 {3.2}	31.3 {3.2}	42.1 {4.3}	38.2 {3.9}	38.2 {3.9}
10	N {kgf}	34.3 {3.5}	32.3 {3.3}	32.3 {3.3}	43.1 {4.4}	39.2 {4.0}	39.2 {4.0}
12	N {kgf}	36.2 {3.7}	34.3 {3.5}	34.3 {3.5}	45.0 {4.6}	41.1 {4.2}	41.1 {4.2}
14	N {kgf}	38.2 {3.9}	36.2 {3.7}	36.2 {3.7}	47.0 {4.8}	43.1 {4.4}	43.1 {4.4}
15	N {kgf}	39.2 {4.0}	37.2 {3.8}	37.2 {3.8}	48.0 {4.9}	44.1 {4.5}	44.1 {4.5}
16	N {kgf}	40.1 {4.1}	38.2 {3.9}	38.2 {3.9}	49.0 {5.0}	45.0 {4.6}	45.0 {4.6}
17	N {kgf}	41.1 {4.2}	39.2 {4.0}	39.2 {4.0}	49.9 {5.1}	46.0 {4.7}	46.0 {4.7}
20	N {kgf}	44.1 {4.5}	42.1 {4.3}	42.1 {4.3}	52.9 {5.4}	49.0 {5.0}	49.0 {5.0}
21	N {kgf}	45.0 {4.6}	43.1 {4.4}	43.1 {4.4}	53.9 {5.5}	49.9 {5.1}	49.9 {5.1}
23	N {kgf}	47.0 {4.8}	45.0 {4.6}	45.0 {4.6}	55.8 {5.7}	51.9 {5.3}	51.9 {5.3}
24	N {kgf}	48.0 {4.9}	46.0 {4.7}	46.0 {4.7}	56.8 {5.8}	52.9 {5.4}	52.9 {5.4}
26	N {kgf}	49.9 {5.1}	48.0 {4.9}	48.0 {4.9}	58.8 {6.0}	54.8 {5.6}	54.8 {5.6}
27	N {kgf}	50.9 {5.2}	49.0 {5.0}	49.0 {5.0}	59.7 {6.1}	55.8 {5.7}	55.8 {5.7}
28	N {kgf}	51.9 {5.3}	49.9 {5.1}	49.9 {5.1}	60.7 {6.2}	56.8 {5.8}	56.8 {5.8}
30	N {kgf}	53.9 {5.5}	51.9 {5.3}	51.9 {5.3}	62.7 {6.4}	58.8 {6.0}	58.8 {6.0}
32	N {kgf}	55.8 {5.7}	53.9 {5.5}	53.9 {5.5}	64.6 {6.6}	60.7 {6.2}	60.7 {6.2}
36	N {kgf}	59.7 {6.1}	57.8 {5.9}	57.8 {5.9}	68.6 {7.0}	64.6 {6.6}	64.6 {6.6}
40	N {kgf}	63.7 {6.5}	61.7 {6.3}	61.7 {6.3}	72.5 {7.4}	68.6 {7.0}	68.6 {7.0}

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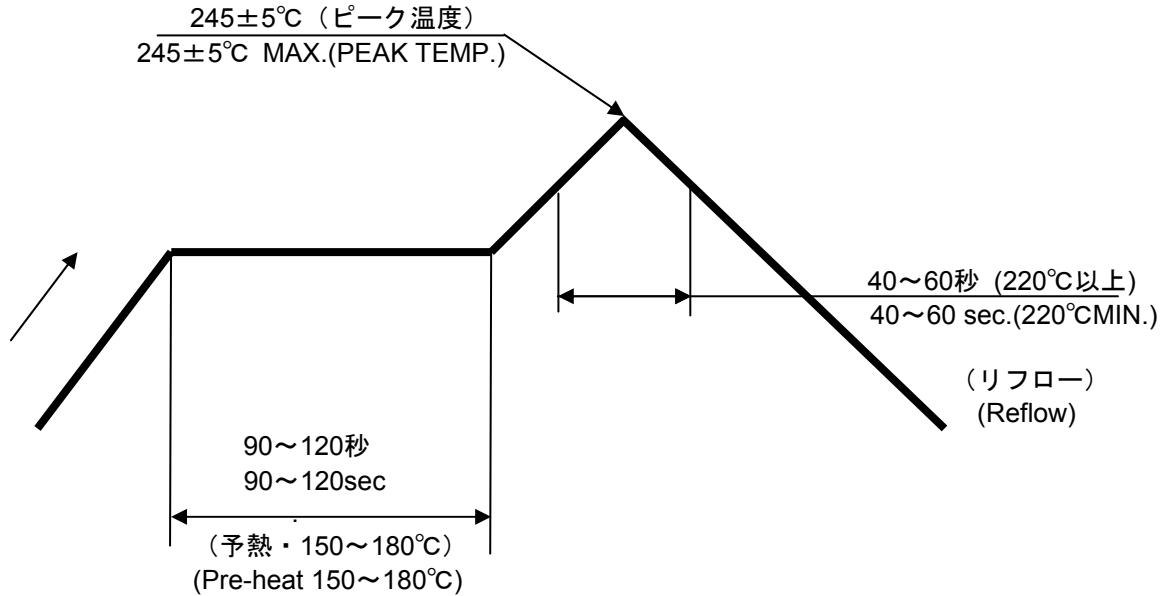
【7. FPC保持力 FPC RETENTION FORCE】

極数 No. OF CKT.	単位 UNIT	保持力 (最小値) RETENTION FORCE (MINIMUM)		極数 No. OF CKT.	単位 UNIT	保持力 (最小値) RETENTION FORCE (MINIMUM)	
		初回 1st	20回目 20 <sup>th</sup>			初回 1st	20回目 20 <sup>th</sup>
6	N {kgf}	1.7 {0.17}	1.0 {0.10}	23	N {kgf}	8.5 {0.87}	7.0 {0.71}
9	N {kgf}	2.9 {0.29}	2.1 {0.21}	24	N {kgf}	8.9 {0.91}	7.3 {0.74}
10	N {kgf}	3.3 {0.33}	2.4 {0.24}	26	N {kgf}	9.7 {0.99}	8.0 {0.82}
12	N {kgf}	4.2 {0.42}	3.2 {0.32}	27	N {kgf}	10.1 {1.03}	8.4 {0.85}
14	N {kgf}	4.9 {0.50}	3.9 {0.39}	28	N {kgf}	10.5 {1.07}	8.7 {0.89}
15	N {kgf}	5.3 {0.54}	4.2 {0.42}	30	N {kgf}	11.3 {1.15}	9.4 {0.96}
16	N {kgf}	5.7 {0.58}	4.6 {0.46}	32	N {kgf}	12.1 {1.23}	10.1 {1.03}
17	N {kgf}	6.1 {0.62}	4.8 {0.49}	36	N {kgf}	13.8 {1.40}	11.5 {1.17}
20	N {kgf}	7.3 {0.74}	5.9 {0.60}	40	N {kgf}	15.3 {1.56}	12.9 {1.32}
21	N {kgf}	7.7 {0.78}	6.3 {0.64}				

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【8. 赤外線リフロー条件 INFRARED REFLOW CONDITION】



温度条件グラフ

(温度は基板パターン面)

TEMPERATURE CONDITION GRAPH  
(TEMPERATURE ON BOARD PATTERN SIDE)

注記；本リフロー条件に関しては、リフロー装置及び基板などにより条件が異なりますので、事前にリフロー評価の確認をお願い致します。また吸湿などの前処理は行わないで下さい。

NOTE; Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, p.c. boards, and so on. No moisture treatment before reflow process.

【9. 取り扱いの注意事項 INSTRUCTION UPON USAGE】

1. 防湿梱包開封後は防湿効果を失うため、すみやかにご使用下さい。効果維持を考慮すると、開梱後の使用目安は48時間以内です。

Please use it promptly after opening a packing. The recommendation is within at 48 hours.

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