

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [5022250801](#)
Status: **Active**
Overview: [cmc connectors](#)
Description: 2.50mm (.098"), 3.50mm (.138"), 3.70mm (.146") CMC Header, Right Angle, 80 Circuits

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Product Specification PS-64319-001 \(PDF\)](#)

General

Product Family	PCB Headers
Series	502225
Application	Wire-to-Board
Overview	cmc connectors
Product Name	CMC

Physical

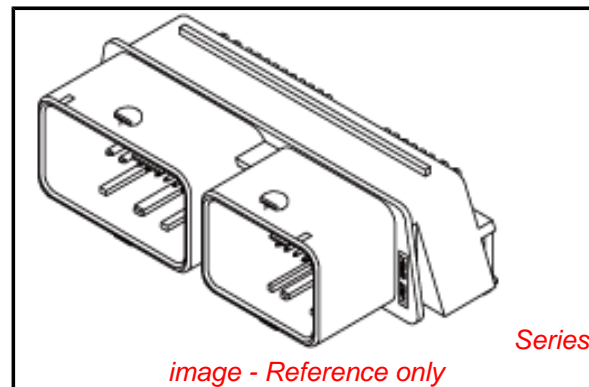
Breakaway	No
Circuits (Loaded)	80
Circuits (maximum)	80
Color - Resin	Black
Durability (mating cycles max)	20
First Mate / Last Break	Yes
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	Yes
Lock to Mating Part	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Tin
Material - Plating Termination	Tin
Number of Rows	4
Orientation	Right Angle
PCB Locator	Yes
PCB Retention	None
PCB Thickness Recommended (in)	0.063 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.098 In, 0.137 In, 0.146 In
Pitch - Mating Interface (mm)	2.50 mm, 3.50 mm, 3.70 mm
Pitch - Term. Interface (in)	0.098 In, 0.137 In, 0.146 In
Pitch - Term. Interface (mm)	2.50 mm, 3.50 mm, 3.70 mm
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Closed Ends
Stackable	No
Surface Mount Compatible (SMC)	No
Temperature Range - Operating	-40°C to +125°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	6A
Voltage - Maximum	250V

Solder Process Data

Duration at Max. Process Temperature (seconds)	25
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EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Halogen-Free

Need more information on product environmental compliance?

Email 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

[502225Series](#)

Mates With

[64319-3211](#) CMC Connector . [64320-1319](#) CMC Connector

Use With

[64319-3211](#) CMC Connector . [64320-1319](#) CMC Connector . [64322](#) and [64323](#) series Terminals . [64320-1301](#) Wire Cap.

Lead-free Process Capability
Max. Cycles at Max. Process Temperature
Process Temperature max. C

Wave Capable (TH only)
1
260

Material Info

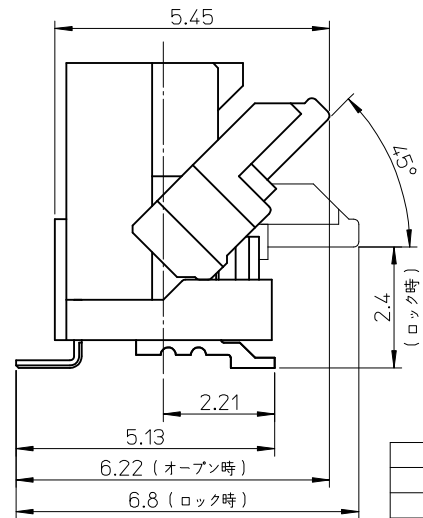
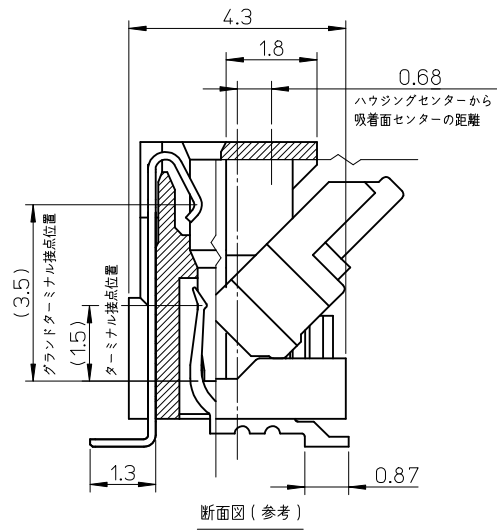
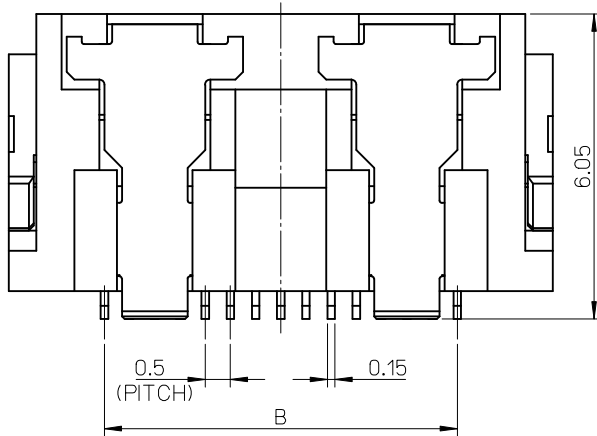
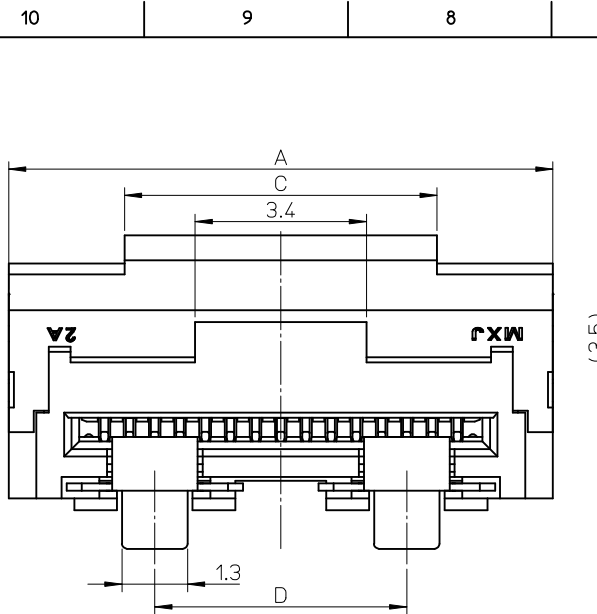
Reference - Drawing Numbers

Product Specification
Sales Drawing

PS-64319-001
SD-502225-001

This document was generated on 05/26/2010

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注記
NOTES:
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1.材質  
MATERIAL  
ハウジング: LCP(液晶ポリマー)、ガラス充填、ナチュラル色、UL94V-0  
HOUSING: LIQUID CRYSTAL POLYMER, GLASS FILLED, COLOR: NATURAL, UL94V-0  
アクチュエータ: ポリアミド9T、ガラス充填、茶色、UL94V-0  
ACTUATOR: POLYAMIDE 9T, GLASS FILLED, COLOR: BROWN, UL94V-0  
ターミナル: 燐青銅 (t=0.15)  
TERMINAL: PHOSPHOR BRONZE (t=0.15)  
グラウンドターミナル: 燐青銅 (t=0.15)  
GROUND TERMINAL: PHOSPHOR BRONZE (t=0.15)

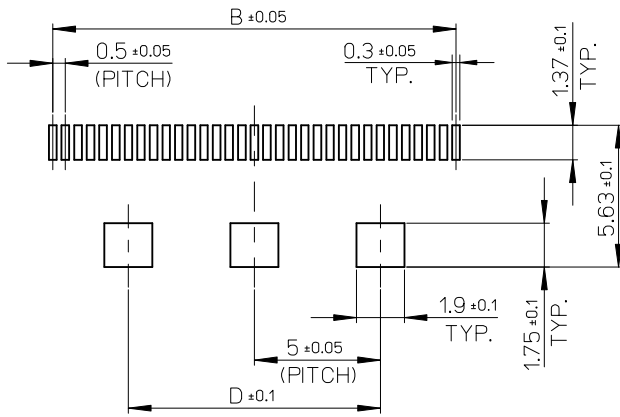
2.めっき仕様  
PLATING  
ターミナル  
TERMINAL  
金めっき  
GOLD PLATING  
下地ニッケルめっき  
UNDER PLATING: NICKEL PLATING  
グラウンドターミナル  
GROUND TERMINAL  
錫めっき  
TIN PLATING  
下地ニッケルめっき  
UNDER PLATING: NICKEL PLATING

3.平坦度は、0.1ミリ以下とする。  
TAILS COPLANARITY TO BE 0.1 MAXIMUM.

△ 使用するFFCはターミナル用パターン導体部とグラウンドターミナル用パターン導体部が重ならないこと。  
FFC IS NOT OVER LAP PATTERN OF TERMINAL AND GROUND TERMINAL.

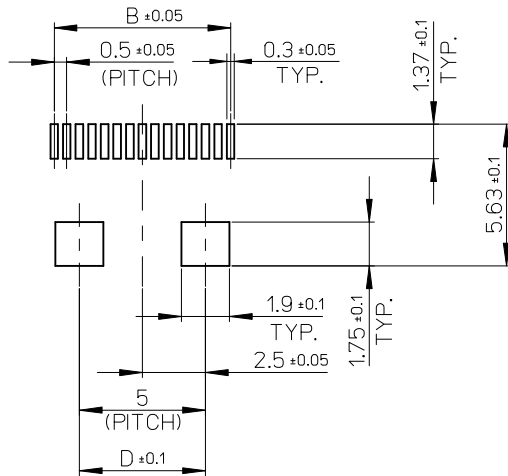
|                 |    |     |      |      |                   |             |          |
|-----------------|----|-----|------|------|-------------------|-------------|----------|
| 3               | 10 | 10  | 16   | 19.8 | 502231-3300       | 502231-3309 | 33       |
| 2               | 5  | 10  | 11.5 | 15.3 | 502231-2400       | 502231-2409 | 24       |
| 2               | 5  | 6.2 | 7    | 10.8 | 502231-1500       | 502231-1509 | 15       |
| グラウンドターミナルピン数   | D  | C   | B    | A    | EMBOSSED TAPE     |             | 製品番号     |
| GROUND TERM QT. |    |     |      |      | ORDER No. オオーダー番号 |             | 極数       |
|                 |    |     |      |      | MATERIAL NO.      |             | CIRCUITS |

|                                                                                                                    |                                                      |       |                                                                                                                               |  |                               |                        |                        |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|------------------------|------------------------|
| REVISED<br>EC NO.: J2009-2073<br>DRWN: MTAKASAKI 2009/03/13<br>CHKD: HAYASHI 2009/03/13<br>APPR: NUKITA 2009/03/13 | GENERAL TOLERANCES (UNLESS SPECIFIED)                |       | DIMENSION STYLE<br>MM ONLY                                                                                                    |  | SCALE<br>10:1                 | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |
|                                                                                                                    | 10 UNDER                                             | ±0.2  | DRAWN BY<br>TRSUZUKI                                                                                                          |  | DATE<br>2006/08/24            |                        |                        |
|                                                                                                                    | 10 OVER 30 UNDER                                     | ±0.25 | CHECKED BY<br>HHRATA                                                                                                          |  | DATE<br>2006/08/24            |                        |                        |
|                                                                                                                    | 30 OVER                                              | ±0.3  | APPROVED BY<br>MSASAO                                                                                                         |  | DATE<br>2006/08/24            |                        |                        |
|                                                                                                                    | ANGULAR                                              | ±1 °  | MATERIAL NO.<br>SEE CHART                                                                                                     |  | DOCUMENT NO.<br>SD-502231-001 |                        | SHEET NO.<br>1 OF 2    |
|                                                                                                                    | 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 |  |                               |                        |                        |



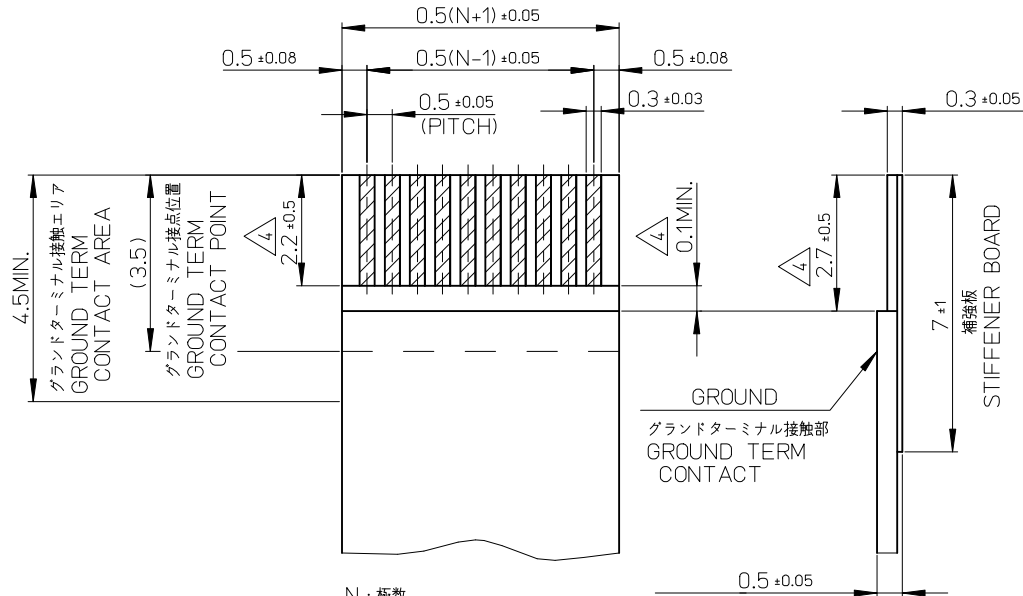
参考基板レイアウト  
(グラウンドターミナルピン数: 奇数品に適用)

P.C. BOARD PATTERN LAYOUT  
(GROUND TERMINAL QUANTITY : ODD NUMBER)



参考基板レイアウト  
(グラウンドターミナルピン数: 偶数品に適用)

P.C. BOARD PATTERN LAYOUT  
(GROUND TERMINAL QUANTITY : EVEN NUMBER)



N : 極数  
N : CIRCUITS

適合FFC推奨寸法  
APPLICABLE FFC  
RECOMMENDED DIMENSION

先端から5mm迄維持すること  
(コネクタグラウンドターミナル接触部)  
MAINTAIN MEASURE FROM  
THE POINT TO 5mm  
(GROUND TERM CONTACT)

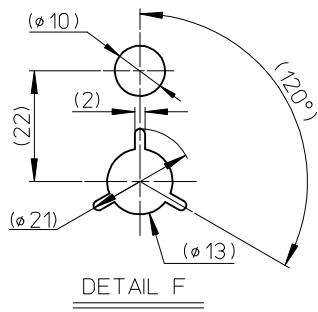
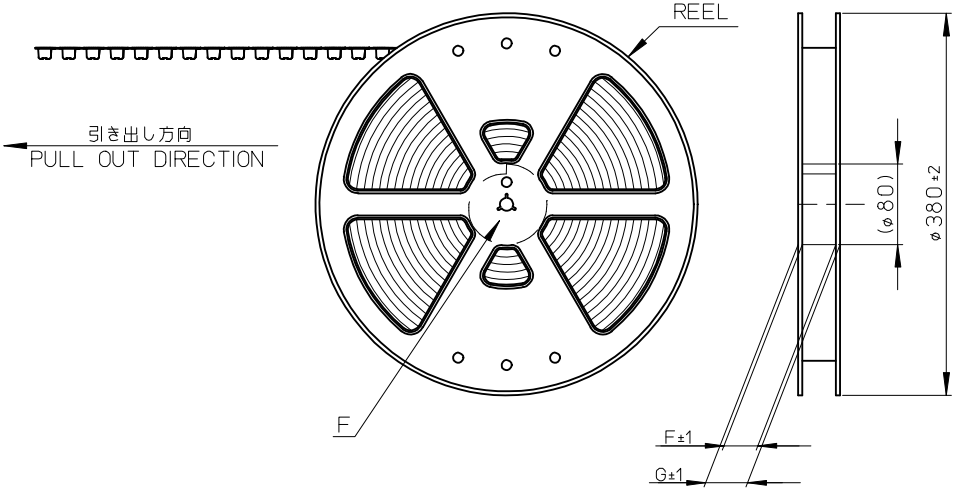
FFCについて:

抜き方向は導体側から補強板側を推奨致します。  
導体部については、軟銅箔: 35マイクロメーター又は50マイクロメーター  
金めっきを推奨致します。

ABOUT FFC:

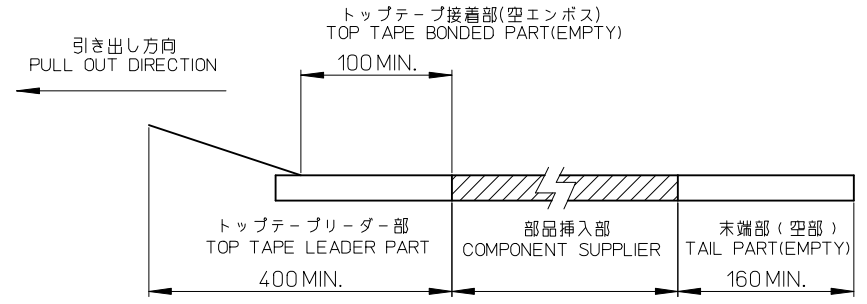
RECOMMENDED PUNCHER DIRECTION :  
FROM CONDUCTOR SIDE TO STIFFENER FILM SIDE.  
RECOMMENDED CONDUCTOR SPEC :  
THICKNESS OF SOFT COPPER :  
35 MICROMETER OR 50 MICROMETER  
GOLD PLATING

|                                                                                                                      |                                                                      |                                       |       |                            |                    |                                                                         |                        |                        |  |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------|-------|----------------------------|--------------------|-------------------------------------------------------------------------|------------------------|------------------------|--|
| SEE SHEET 1<br>EC NO.: J2009-2073<br>DRWN:MTAKASAKI 2009/03/13<br>CHKD:MHAYASHI 2009/03/13<br>APPR:NUKITA 2009/03/13 | DESCRIPTION                                                          | GENERAL TOLERANCES (UNLESS SPECIFIED) |       | DIMENSION STYLE<br>MM ONLY |                    | SCALE<br>5:1                                                            | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |  |
|                                                                                                                      |                                                                      | 10 UNDER                              | ±0.2  | DRAWN BY<br>TRSUZUKI       | DATE<br>2006/08/24 | TITLE<br>0.5 FFC CONN HSG ASSY FOR LVDS E/O STRAIGHT (GOLD) -LEAD FREE- |                        |                        |  |
|                                                                                                                      |                                                                      | 10 OVER 30 UNDER                      | ±0.25 | CHECKED BY<br>HHRATA       | DATE<br>2006/08/24 | MOLEX INCORPORATED                                                      |                        |                        |  |
|                                                                                                                      |                                                                      | 30 OVER                               | ±0.3  | APPROVED BY<br>MSASAO      | DATE<br>2006/08/24 | DOCUMENT NO.<br>SD-502231-001                                           |                        |                        |  |
| REV                                                                                                                  | ANGULAR ±1 °<br>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.<br>SEE SHEET 1           |       | SIZE<br>A3                 |                    | SHEET NO.<br>2 OF 2                                                     |                        |                        |  |



NOTES

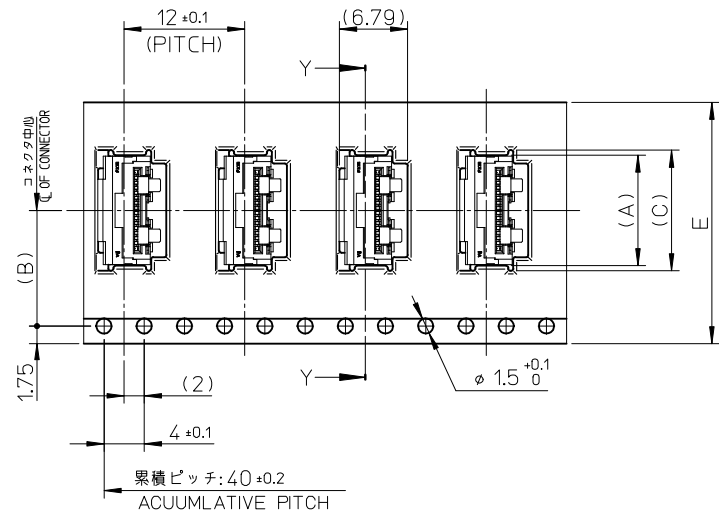
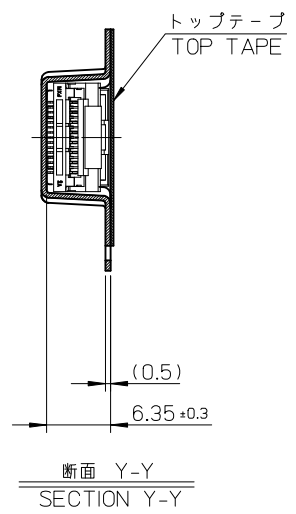
- 製品詳細寸法につきましては、製品単体図面を参照して下さい。  
FOR DETAIL OF CONNECTOR DIMENSIONS,  
PLEASE SEE THE DRAWING OF CONNECTOR ITSELF (NOT PACKAGED).
- 梱包数量：1000個/リール  
NUMBER OF CONNECTORS：1000PCS/REEL
- リードテープの長さ  
LEAD TAPE LENGTH



- 4.材料  
MATERIAL
- キャリアテープ：ポリスチレン (PS)  
CARRIER TAPE：POLYSTYRENE (PS)
  - トップテープ：PET, OTHER  
TOP TAPE：PET, OTHER
  - リール：ポリスチレン (リサイクル材を含む)  
REEL：POLYSTYRENE (RECYCLE MATERIAL CONTAINED)

|                                                                                                                   |                                       |            |                                                                                                                               |                               |                                                                                 |                        |                        |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------|------------------------|------------------------|
| REVISED<br>EC NO: J2009-2073<br>DRW: MTAKASAKI 2009/03/13<br>CHK: DHHAYASHI 2009/03/13<br>APPR: NUKITA 2009/03/13 | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | DIMENSION STYLE<br>MM ONLY                                                                                                    |                               | SCALE<br>---                                                                    | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |
|                                                                                                                   | 10 UNDER                              | ±0.2       | DRAWN BY<br>TRSUZUKI                                                                                                          | DATE<br>2006/08/24            | TITLE<br>0.5 FFC CONN EMBSTP PKG<br>FOR LVDS E/O STRAIGHT<br>(GOLD) -LEAD FREE- |                        |                        |
|                                                                                                                   | 10 OVER 30 UNDER                      | ±0.25      | CHECKED BY<br>HHIRATA                                                                                                         | DATE<br>2006/08/24            |                                                                                 |                        |                        |
|                                                                                                                   | 30 OVER                               | ±0.3       | APPROVED BY<br>MSASAO                                                                                                         | DATE<br>2006/08/24            | MOLEX INCORPORATED                                                              |                        |                        |
|                                                                                                                   | ANGULAR ±1 °                          |            | MATERIAL NO.<br>SEE SHEET 2                                                                                                   | DOCUMENT NO.<br>SD-502231-002 |                                                                                 |                        |                        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                                              |                                       | SIZE<br>A3 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                               |                                                                                 |                        |                        |

引き出し方向  
PULL OUT DIRECTION



|      |      |                                     |     |     |      |     |                   |                      |                |
|------|------|-------------------------------------|-----|-----|------|-----|-------------------|----------------------|----------------|
| 29.4 | 25.4 | 24 ± 0.3                            | --- | 12  | 11.5 | 11  | 502231-1509       | 502231-1500          | 15             |
| G    | F    | E<br>キャリアテープ幅<br>CARRIER TAPE WIDTH | D   | (C) | (B)  | (A) | 製品単体<br>CONNECTOR | 製品番号<br>MATERIAL NO. | 極数<br>CIRCUITS |

|                                                                                                                       |             |                                                      |        |                                                                                                                               |                    |                                                                           |                        |                        |  |
|-----------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------|------------------------|------------------------|--|
| SEE SHEET 1<br>EC NO: J2009-2073<br>DRAWN: TAKASAKI 2009/03/13<br>CHKD: HAYASHI 2009/03/13<br>APPR: NUKITA 2009/03/13 | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED)                |        | DIMENSION STYLE<br>MM ONLY                                                                                                    |                    | SCALE<br>---                                                              | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |  |
|                                                                                                                       |             | 10 UNDER                                             | ± 0.2  | DRAWN BY<br>TRSUZUKI                                                                                                          | DATE<br>2006/08/24 | TITLE<br>0.5 FFC CONN EMBSTP PKG FOR LVDS E/O STRAIGHT (GOLD) -LEAD FREE- |                        |                        |  |
|                                                                                                                       |             | 10 OVER 30 UNDER                                     | ± 0.25 | CHECKED BY<br>HIRATA                                                                                                          | DATE<br>2006/08/24 | APPROVED BY<br>MSASAO 2006/08/24                                          |                        |                        |  |
|                                                                                                                       |             | 30 OVER                                              | ± 0.3  | MATERIAL NO.<br>SEE CHART                                                                                                     |                    | DOCUMENT NO.<br>SD-502231-002                                             |                        | SHEET NO.<br>2 OF 3    |  |
| ANGULAR ±1 °                                                                                                          |             | 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 |                    |                                                                           |                        |                        |  |

10 9 8 7 6 5 4 3 2 1

F

E

D

C

B

A

F

E

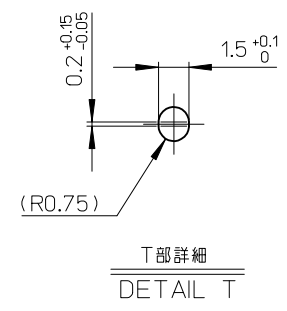
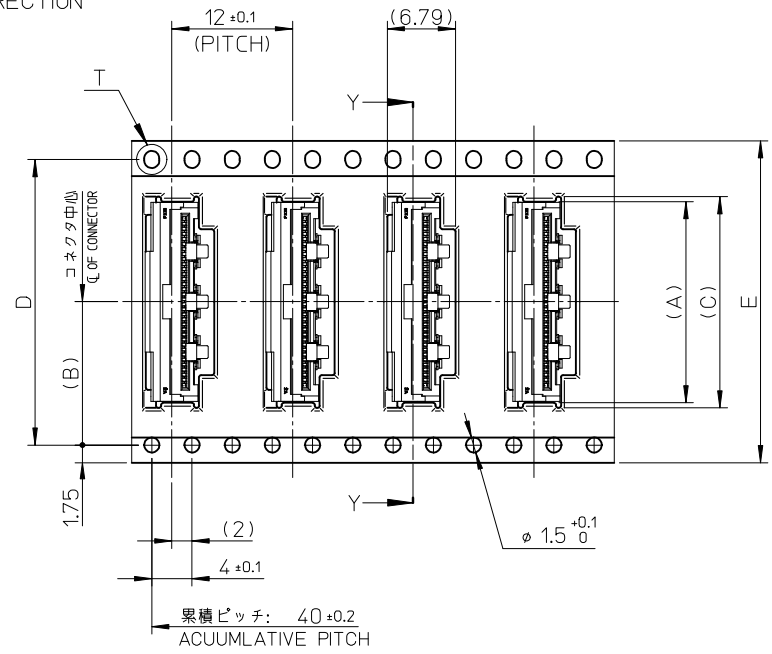
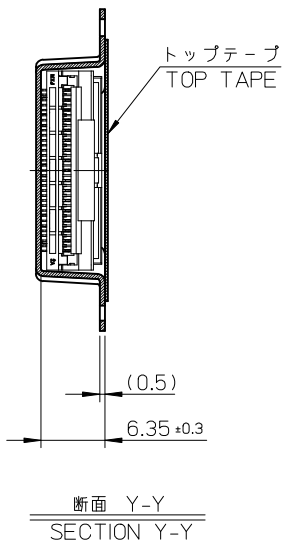
D

C

B

A

引き出し方向  
PULL OUT DIRECTION



|      |      |                                     |      |           |      |           |                   |                      |                |
|------|------|-------------------------------------|------|-----------|------|-----------|-------------------|----------------------|----------------|
| 37.4 | 33.4 | 32 ± 0.3                            | 28.4 | 21 / 16.5 | 14.2 | 20 / 15.5 | 502231-3309       | 502231-3300          | 33             |
|      |      |                                     |      |           |      |           | 502231-2409       | 502231-2400          | 24             |
| G    | F    | E<br>キャリアテープ幅<br>CARRIER TAPE WIDTH | D    | (C)       | (B)  | (A)       | 製品単体<br>CONNECTOR | 製品番号<br>MATERIAL NO. | 極数<br>CIRCUITS |

|                                                                                                                         |             |                                       |                                                      |                            |                    |                                                                           |                        |                                                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------|------------------------------------------------------|----------------------------|--------------------|---------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------|--|
| SEE SHEET 1<br>EC NO: J2009-2073<br>DRAWN: AKASAKI 2009/03/13<br>CHECKED: HAYASHI 2009/03/13<br>APPR: NUKITA 2009/03/13 | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |                                                      | DIMENSION STYLE<br>MM ONLY |                    | SCALE<br>---                                                              | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION                                                                                                        |  |
|                                                                                                                         |             | 10 UNDER                              | ± 0.2                                                | DRAWN BY<br>TRSUZUKI       | DATE<br>2006/08/24 | TITLE<br>0.5 FFC CONN EMBSTP PKG FOR LVDS E/O STRAIGHT (GOLD) -LEAD FREE- |                        |                                                                                                                               |  |
|                                                                                                                         |             | 10 OVER 30 UNDER                      | ± 0.25                                               | CHECKED BY<br>HIRATA       | DATE<br>2006/08/24 | MOLEX MOLEX INCORPORATED                                                  |                        |                                                                                                                               |  |
|                                                                                                                         |             | 30 OVER                               | ± 0.3                                                | APPROVED BY<br>MSASAO      | DATE<br>2006/08/24 | DOCUMENT NO.<br>SD-502231-002                                             |                        |                                                                                                                               |  |
|                                                                                                                         |             | ANGULAR ± 1 °                         | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.<br>SEE CHART  |                    | SHEET NO.<br>3 OF 3                                                       |                        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9