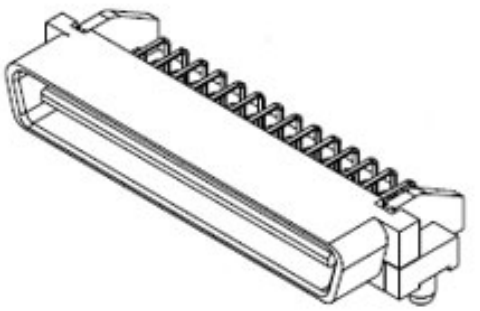
This document was generated on 05/31/2010

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

**Part Number:** 0716612080
**Status:** Active
**Overview:** ebbi_50d
**Description:** 1.27mm (.050") Pitch EBBI™ 50D Plug, Right Angle, 80 Circuits, 2.79mm (.110") PC Tail Length



*Series image - Reference only*

**Documents:**

- 3D Model
- Drawing (PDF)
- Product Specification PS-71660 (PDF)
- RoHS Certificate of Compliance (PDF)

## Agency Certification

| | |
|---|---|
| CSA | LR19980 |
| UL | E29179 |

## General

| | |
|---|---|
| Product Family | PCB Headers |
| Series | 71661 |
| Application | Board-to-Board, Wire-to-Board |
| Overview | ebbi_50d |
| Product Name | EBBI™ |

## Physical

| | |
|---|---|
| Breakaway | No |
| Circuits (Loaded) | 80 |
| Circuits (maximum) | 80 |
| Color - Resin | Black |
| Durability (mating cycles max) | 2,000 |
| First Mate / Last Break | No |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | Yes |
| Material - Metal | Brass |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 4 |
| Orientation | Right Angle |
| PC Tail Length (in) | 0.110 In |
| PC Tail Length (mm) | 2.79 mm |
| PCB Locator | Yes |
| PCB Retention | Yes |
| PCB Thickness Recommended (in) | 0.062 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.050 In |
| Pitch - Mating Interface (mm) | 1.27 mm |
| Pitch - Term. Interface (in) | 0.050 In |
| Pitch - Term. Interface (mm) | 1.27 mm |
| Plating min: Mating (µin) | 30 |
| Plating min: Mating (µm) | 0.76 |
| Plating min: Termination (µin) | 50 |
| Plating min: Termination (µm) | 1.30 |
| Polarized to Mating Part | Yes |
| Polarized to PCB | Yes |

**EU RoHS**
ELV and RoHS Compliant
**REACH SVHC**
Contains SVHC: No
**Halogen-Free Status**
Halogen-Free

**China RoHS**

**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.

**Search Parts in this Series**
71661Series

**Mates With**
EBBI™ 50D Receptacle 71660 , 87552

| | |
|---|---|
| Shrouded | Fully |
| Stackable | No |
| Surface Mount Compatible (SMC) | No |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 1A |
| Voltage - Maximum | 30V |

## Solder Process Data

| | |
|---|---|
| Lead-free Process Capability | SMC & Wave Capable (TH only) |
| Process Temperature max. C | 235 |

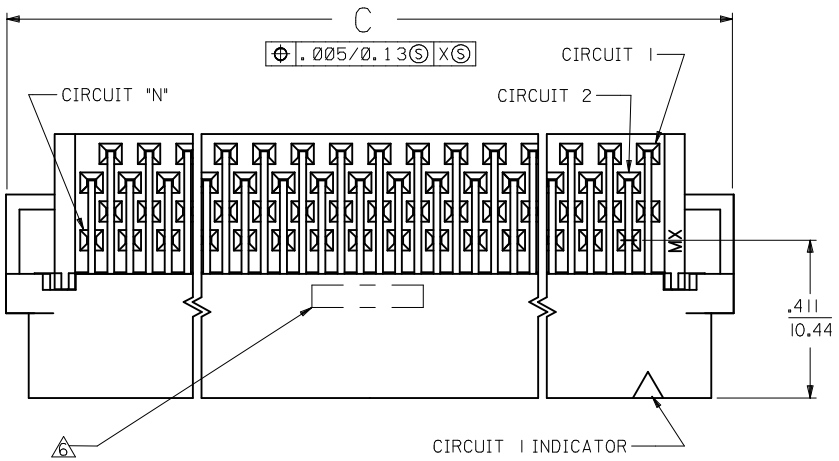
## Material Info

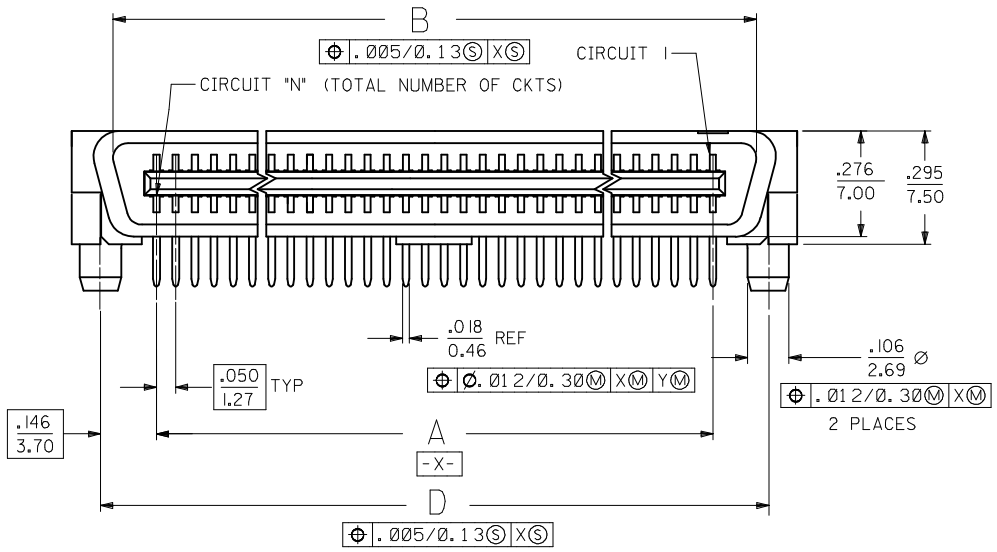
## Reference - Drawing Numbers

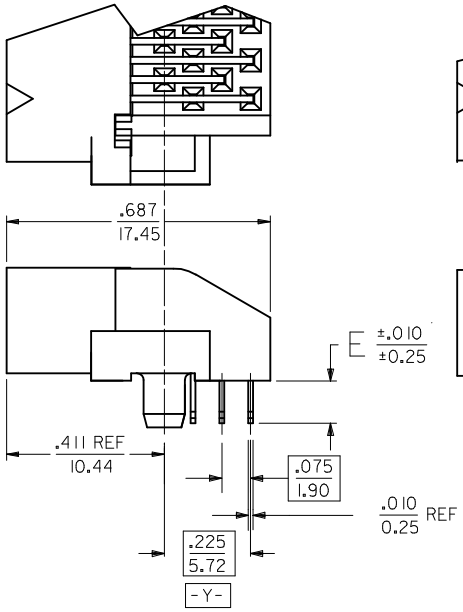
| | |
|---|---|
| Packaging Specification | PK-70873-084* |
| Product Specification | PS-71660 |
| Sales Drawing | SDA-71661-2*** |

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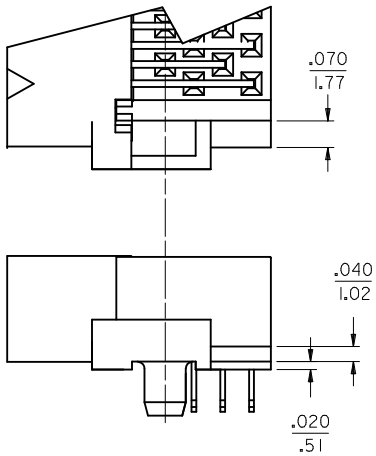
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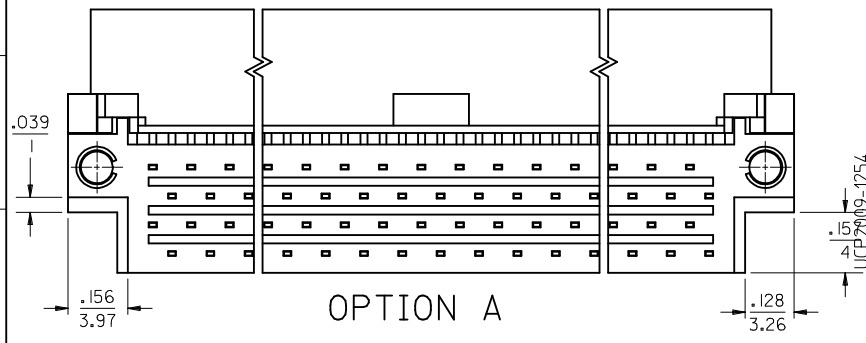




END DETAIL
OPTION A
(BOTH ENDS)




END DETAIL
OPTION B
(BOTH ENDS)




NOTES:

1. MATERIAL:
   HOUSING: LIQUID CRYSTAL POLYMER (LCP), GLAS-FILLED, UL 94V-0,
   COLOR: BLASK
   TERMINALS: BRASS
2. FINISH:
   TERMINAL: 0.76 MICROMETERS/30 MICROINCHES MINIMUM SELECTIVE GOLD IN CONTACT AREA, 1.27 MICROMETERS/50 MICROINCHES MINIMUM SELECTIVE TIN IN THE PC TAIL AREA; NICKEL UNDERPLATE OVERALL
3. ASSEMBLY MATES WITH MOLEX P/N SDA-71660-****
4. CONFORMS TO PRODUCT SPEC: PS-71660
5. RECOMMENDED PC BOARD THICKNESS IS .062/1.60
6. FOUR DIGIT DATE CODE (WK,YR) EXAMPLE 26 96 LOCATED IN AREA SHOWN
7. TOOLING STATUS: "X" INDICATES NO TOOLING AVAILABLE
   CONTACT FACTORY FOR FURTHER INFORMATION

CHANGE MATERIAL
EC NO: DESCRIPTION
DRWN:MS I BARRA 2008/12/19
CH'KD:BBARKER 2009/01/06
APPR:SMILLER 2009/01/06
N REV

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

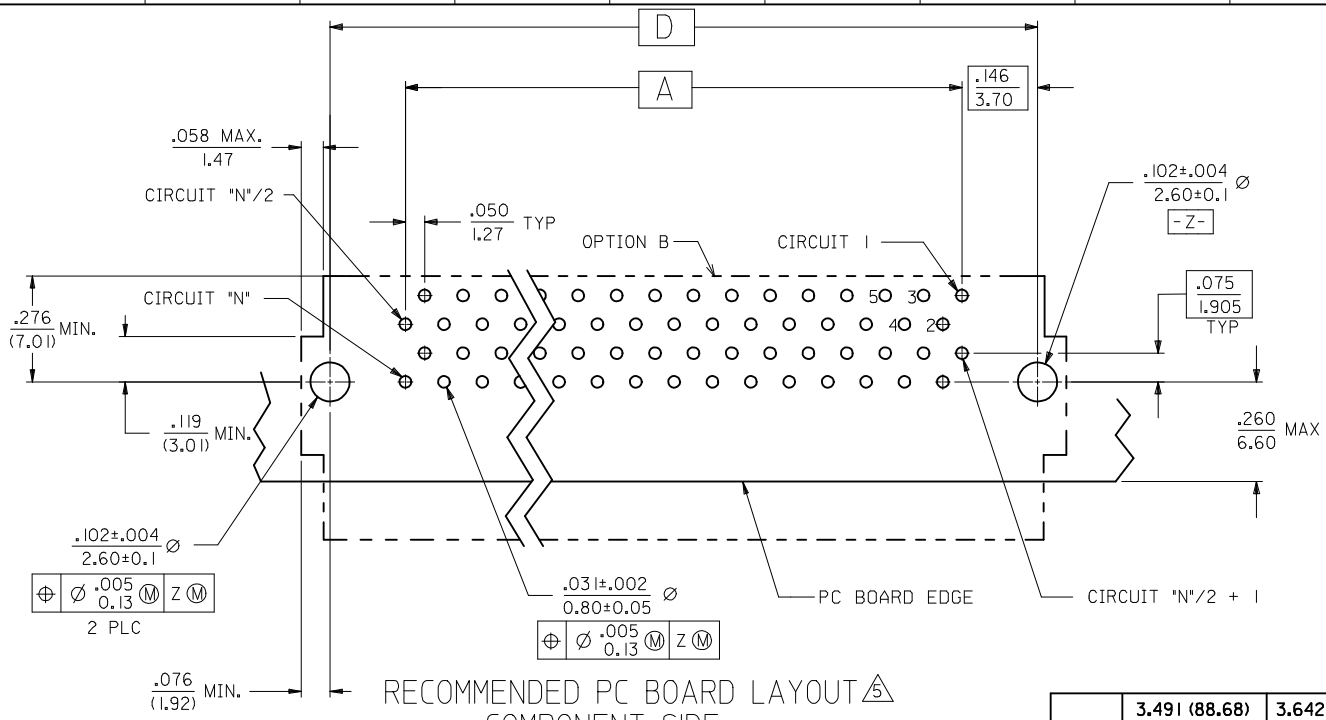
| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± .010 |
| 2 PLACES | ± 0.25 | ± --- |
| 1 PLACE | ± --- | ± --- |

ANGULAR ±1/2°

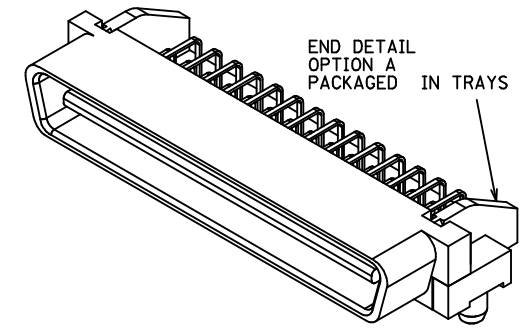
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

| | |
|---|---|
| DIMENSION STYLE | IN/MM |
| SCALE | 4:1 |
| DESIGN UNITS | INCH |
| | THIRD ANGLE PROJECTION |
| DRAWN BY | RAN |
| DATE | 1993/02/23 |
| CHECKED BY | RAN |
| DATE | 1993/02/23 |
| APPROVED BY | CAB |
| DATE | 1993/02/23 |
| MATERIAL NO. | SEE TABLE |
| TITLE | SALES ASSEMBLY EBBI 50D RIGHT ANGLE PLUG CONNECTOR |
| | molex MOLEX INCORPORATED |
| DOCUMENT NO. | SDA-71661-2*** |
| SHEET NO. | 1 OF 2 |
| SIZE | C |

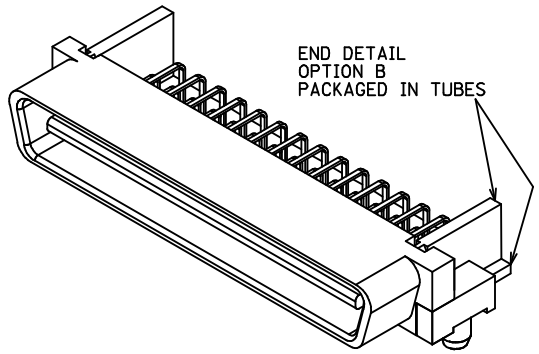
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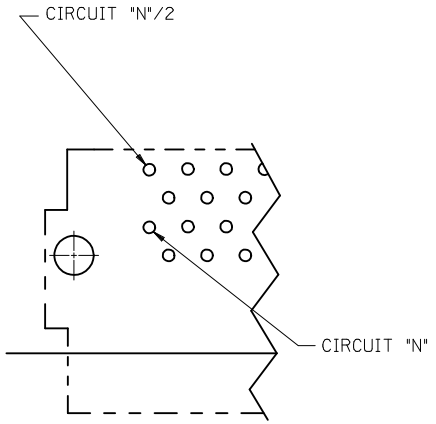



RECOMMENDED PC BOARD LAYOUT 5
COMPONENT SIDE




50 CIRCUIT ASSEMBLY SHOWN




CIRCUIT SIZES 30, 50, 130 ONLY

| | | | | | | | TRAY PACK PER SPEC. PK-70873-084* END DETAIL OPTION "A" |
|---|---|---|---|---|---|---|---|
| .125 (3.18) | 3.491 (88.68) | 3.642 (92.50) | 3.426 (87.02) | 3.200 (81.28) | 130 | | 71661-2430 |
| | 3.241 (82.33) | 3.392 (86.15) | 3.176 (80.67) | 2.950 (74.93) | 120 | | 71661-2420 |
| | 2.741 (69.63) | 2.892 (73.45) | 2.676 (67.97) | 2.450 (62.23) | 100 | | 71661-2400 |
| | 2.241 (56.93) | 2.392 (60.75) | 2.176 (55.27) | 1.950 (49.53) | 80 | | 71661-2380 |
| | 1.941 (49.31) | 2.092 (53.13) | 1.875 (47.65) | 1.650 (41.91) | 68 | | 71661-2368 |
| | 1.741 (44.23) | 1.892 (48.05) | 1.676 (42.57) | 1.450 (36.83) | 60 | | 71661-2360 |
| | 1.491 (37.88) | 1.642 (41.70) | 1.426 (36.22) | 1.200 (30.48) | 50 | | 71661-2350 |
| | 1.241 (31.53) | 1.392 (35.35) | 1.176 (29.87) | .950 (24.13) | 40 | | 71661-2340 |
| | .991 (25.18) | 1.142 (29.00) | .925 (23.52) | .700 (17.78) | 30 | | 71661-2330 |
| .110 (2.79) | 3.491 (88.68) | 3.642 (92.50) | 3.426 (87.02) | 3.200 (81.28) | 130 | | 71661-2130 |
| | 3.241 (82.33) | 3.392 (86.15) | 3.176 (80.67) | 2.950 (74.93) | 120 | | 71661-2120 |
| | 2.741 (69.63) | 2.892 (73.45) | 2.676 (67.97) | 2.450 (62.23) | 100 | | 71661-2100 |
| | 2.241 (56.93) | 2.392 (60.75) | 2.176 (55.27) | 1.950 (49.53) | 80 | | 71661-2080 |
| | 1.941 (49.31) | 2.092 (53.13) | 1.875 (47.65) | 1.650 (41.91) | 68 | | 71661-2068 |
| | 1.741 (44.23) | 1.892 (48.05) | 1.676 (42.57) | 1.450 (36.83) | 60 | | 71661-2060 |
| | 1.491 (37.88) | 1.642 (41.70) | 1.426 (36.22) | 1.200 (30.48) | 50 | | 71661-2050 |
| | 1.241 (31.53) | 1.392 (35.35) | 1.176 (29.87) | .950 (24.13) | 40 | | 71661-2040 |
| | .991 (25.18) | 1.142 (29.00) | .925 (23.52) | .700 (17.78) | 30 | | 71661-2030 |
| E | D | C | B | A | CKT ("N") | 4 | ITEM NUMBER |

CHANGE MATERIAL
EC NO: UCP2009-1254
DRWN:MSIBARRA 2008/12/19
CH'KD:BBARKER 2009/01/06
APPR:SMILLER 2009/01/06
DESCRIPTION
N
REV

QUALITY SYMBOLS
▼=0
▽C=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± .010 |
| 2 PLACES | ± 0.25 | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ±1/2° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

DRAWN BY: RAN DATE: 1993/02/23
CHECKED BY: RAN DATE: 1993/02/23
APPROVED BY: CAB DATE: 1993/02/23

TITLE
SALES ASSEMBLY
EBBI 50D RIGHT ANGLE
PLUG CONNECTOR

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SDA-71661-2***
SHEET NO.: 2 OF 2

SIZE: C

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