

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

**Part Number:** [0716612040](#)  
**Status:** **Active**  
**Overview:** [ebbi\\_50d](#)  
**Description:** 1.27mm (.050") Pitch EBBI™ 50D Plug, Right Angle, 40 Circuits, 2.79mm (.110") PC Tail Length

**Documents:**

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

**Agency Certification**

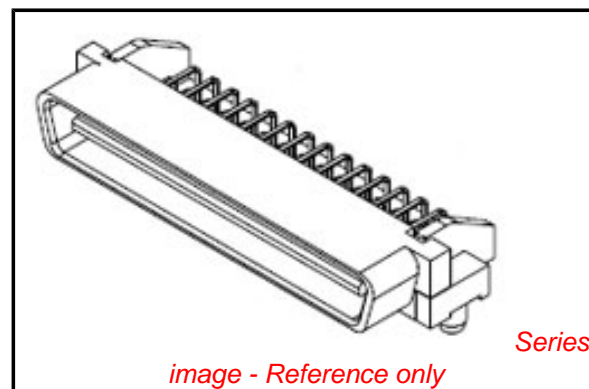
CSA LR19980  
 UL E29179

**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) 40  
 Circuits (maximum) 40  
 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) 0.75  
 Plating min: Termination (µin) 50  
 Plating min: Termination (µm) 1.25  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes



**EU RoHS**

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

**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**

[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**

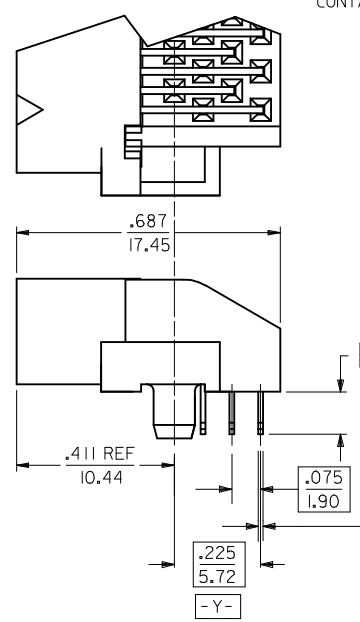
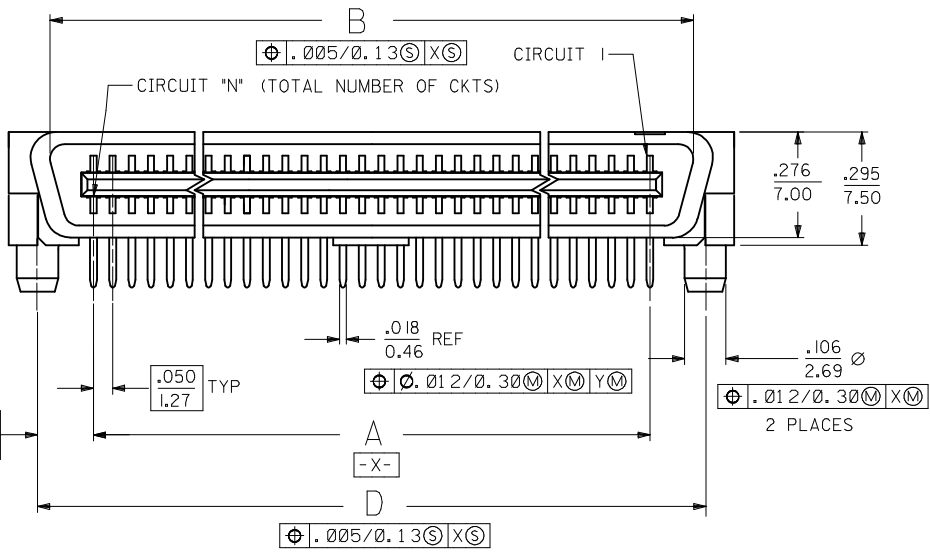
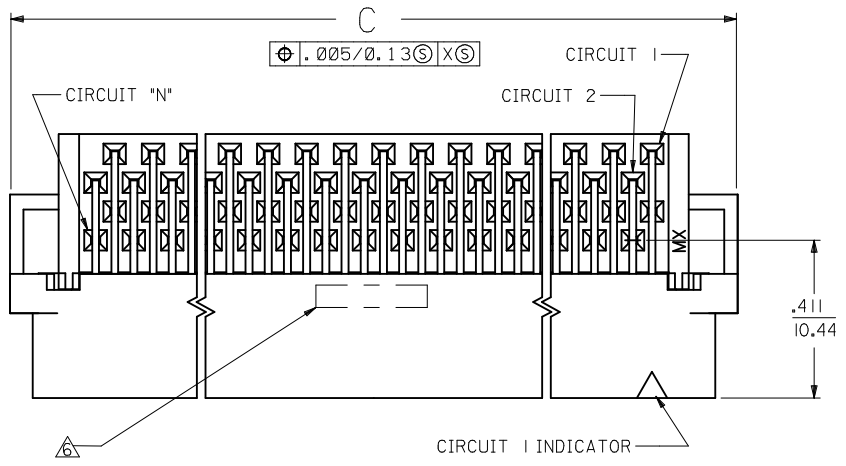
#### **Reference - Drawing Numbers**

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

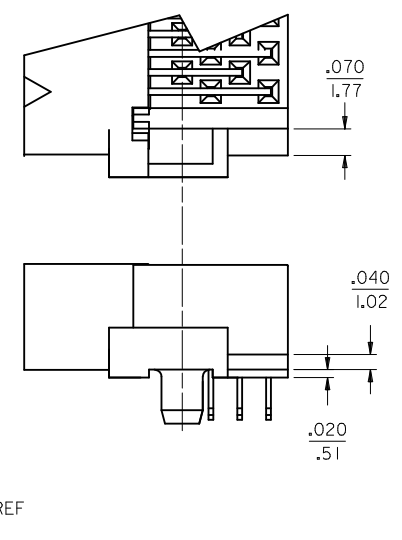
This document was generated on 05/31/2010

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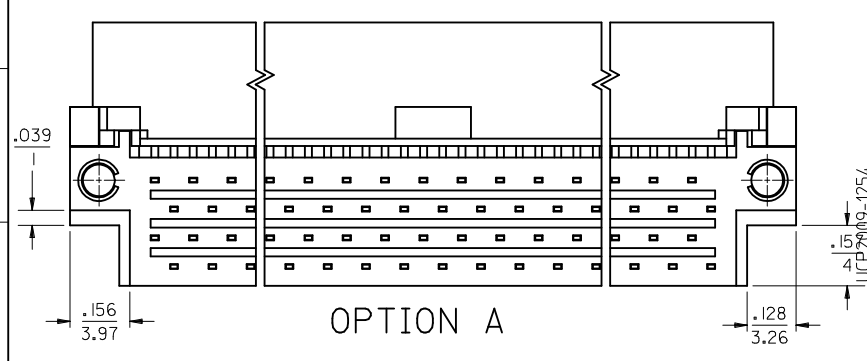
NOTES:  
 1. MATERIAL:  
 HOUSING: LIQUID CRYSTAL POLYMER (LCP), GLAS-FILLED, UL 94V-0,  
 COLOR: BLASK  
 TERMINALS: BRASS  
 2. FINISH:  
 TERMINAL: 0.76 MICROMETERS/30 MICROINCHES MINIMUM SELECTIVE GOLD  
 IN CONTACT AREA, 1.27 MICROMETERS/50 MICROINCHES MINIMUM  
 SELECTIVE TIN IN THE PC TAIL AREA;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



END DETAIL  
 OPTION A  
 (BOTH ENDS)



END DETAIL  
 OPTION B  
 (BOTH ENDS)



OPTION A

REV	DESCRIPTION
N	CHANGE MATERIAL EC NO: DRWIN'S BARRA 2008/12/19 CHKD: BARKER 2009/01/06 APPR: MILLER 2009/01/06

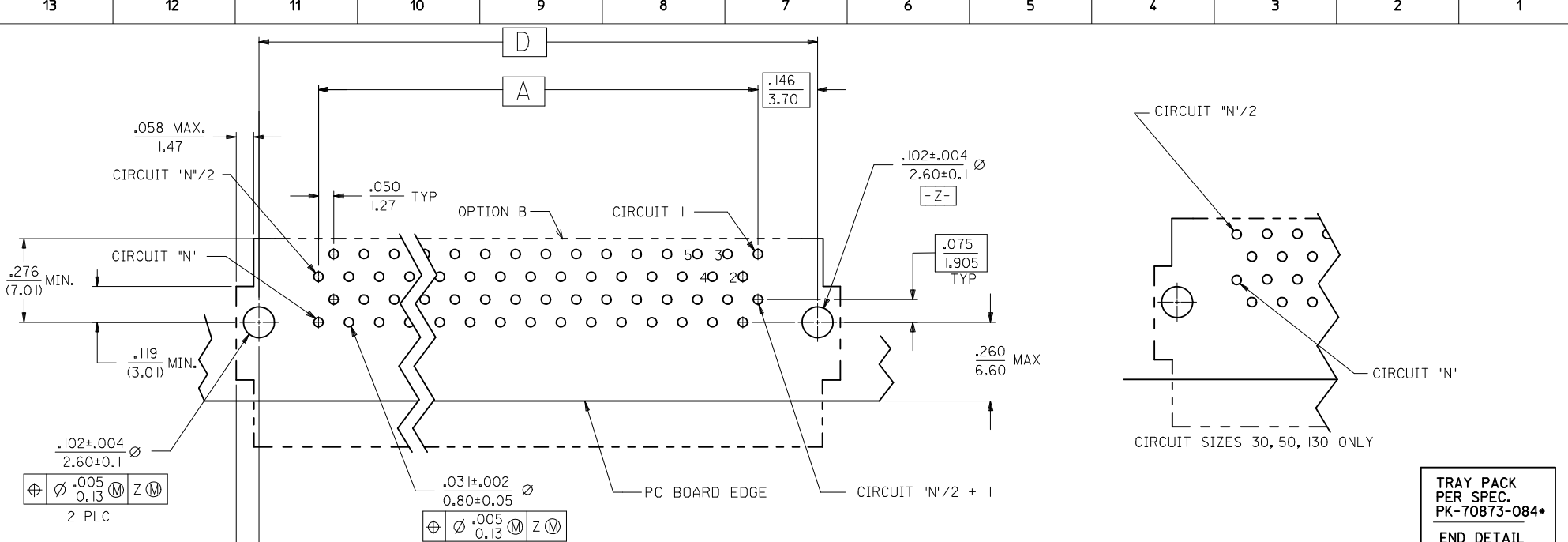
QUALITY SYMBOLS	▽=0 ▽=0															
GENERAL TOLERANCES (UNLESS SPECIFIED)	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .010</td> <td>± .0004</td> </tr> <tr> <td>3 PLACES</td> <td>± .010</td> <td>± .0004</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>1 PLACE</td> <td>± .010</td> <td>± .0004</td> </tr> </table> ANGULAR ±1/2°		mm	INCH	4 PLACES	± .010	± .0004	3 PLACES	± .010	± .0004	2 PLACES	± 0.25	± .010	1 PLACE	± .010	± .0004
	mm	INCH														
4 PLACES	± .010	± .0004														
3 PLACES	± .010	± .0004														
2 PLACES	± 0.25	± .010														
1 PLACE	± .010	± .0004														
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS																

DIMENSION STYLE		SCALE		DESIGN UNITS		THIRD ANGLE PROJECTION	
IN/MM		4:1		INCH			
DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE	MATERIAL NO. / DOCUMENT NO.	
RAN	1993/02/23	RAN	1993/02/23	CAB	1993/02/23	SEE TABLE	
SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				SHEET NO. 1 OF 2	

SALES ASSEMBLY  
 EBBI 50D RIGHT ANGLE  
 PLUG CONNECTOR

MOLEX INCORPORATED

SDA-71661-2\*\*\*



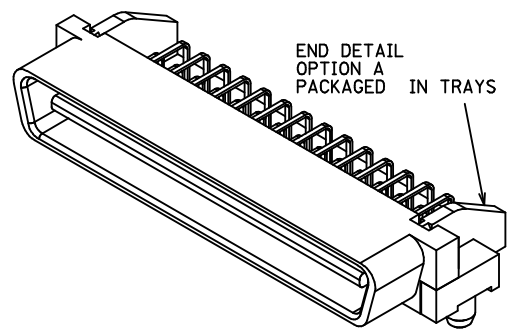
⊕ ∅ .005  
0.13 M Z M  
2 PLC

⊕ ∅ .005  
0.13 M Z M

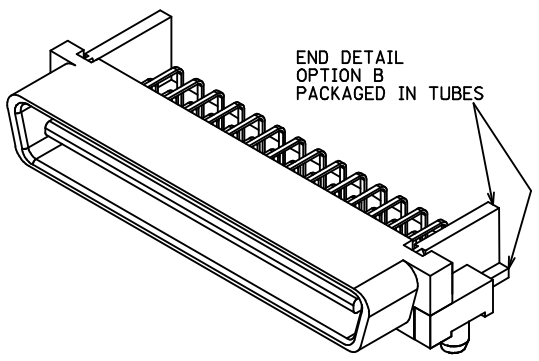
TRAY PACK  
PER SPEC.  
PK-70873-084\*

END DETAIL  
OPTION "A"

RECOMMENDED PC BOARD LAYOUT  
COMPONENT SIDE



50 CIRCUIT ASSEMBLY SHOWN



.125 (3.18)	3.491 (88.68)	3.642 (92.50)	3.426 (87.02)	3.200 (81.28)	130	7166 I-2430
	3.241 (82.33)	3.392 (86.15)	3.176 (80.67)	2.950 (74.93)	120	7166 I-2420
	2.741 (69.63)	2.892 (73.45)	2.676 (67.97)	2.450 (62.23)	100	7166 I-2400
	2.241 (56.93)	2.392 (60.75)	2.176 (55.27)	1.950 (49.53)	80	7166 I-2380
	1.941 (49.31)	2.092 (53.13)	1.875 (47.65)	1.650 (41.91)	68	7166 I-2368
	1.741 (44.23)	1.892 (48.05)	1.676 (42.57)	1.450 (36.83)	60	7166 I-2360
	1.491 (37.88)	1.642 (41.70)	1.426 (36.22)	1.200 (30.48)	50	7166 I-2350
	1.241 (31.53)	1.392 (35.35)	1.176 (29.87)	.950 (24.13)	40	7166 I-2340
	.991 (25.18)	1.142 (29.00)	.925 (23.52)	.700 (17.78)	30	7166 I-2330
	.110 (2.79)	3.491 (88.68)	3.642 (92.50)	3.426 (87.02)	3.200 (81.28)	130
3.241 (82.33)		3.392 (86.15)	3.176 (80.67)	2.950 (74.93)	120	7166 I-2120
2.741 (69.63)		2.892 (73.45)	2.676 (67.97)	2.450 (62.23)	100	7166 I-2100
2.241 (56.93)		2.392 (60.75)	2.176 (55.27)	1.950 (49.53)	80	7166 I-2080
1.941 (49.31)		2.092 (53.13)	1.875 (47.65)	1.650 (41.91)	68	7166 I-2068
1.741 (44.23)		1.892 (48.05)	1.676 (42.57)	1.450 (36.83)	60	7166 I-2060
1.491 (37.88)		1.642 (41.70)	1.426 (36.22)	1.200 (30.48)	50	7166 I-2050
1.241 (31.53)		1.392 (35.35)	1.176 (29.87)	.950 (24.13)	40	7166 I-2040
.991 (25.18)		1.142 (29.00)	.925 (23.52)	.700 (17.78)	30	7166 I-2030
E		D	C	B	A	CKT ("N")

CHANGE MATERIAL EC NO: UCP2009-1254 DRWIN:SBARRA 2008/12/19 CHKD:BBARKER 2009/01/06 APPR:SMILLER 2009/01/06	DESCRIPTION	REV
		N

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)
▽=0	mm INCH
▽=0	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	
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	
SIZE C	

SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
SALES ASSEMBLY EBBI 50D RIGHT ANGLE PLUG CONNECTOR		
MOLEX INCORPORATED		
DOCUMENT NO. SDA-71661-2***	SHEET NO. 2 OF 2	
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