

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

**Part Number:** [0716612068](#)  
**Status:** **Active**  
**Overview:** [ebbi\\_50d](#)  
**Description:** 1.27mm (.050") Pitch EBBI™ 50D Plug, Right Angle, 68 Circuits, 2.79mm (.110") PC Tail Length

**Documents:**

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

**Agency Certification**

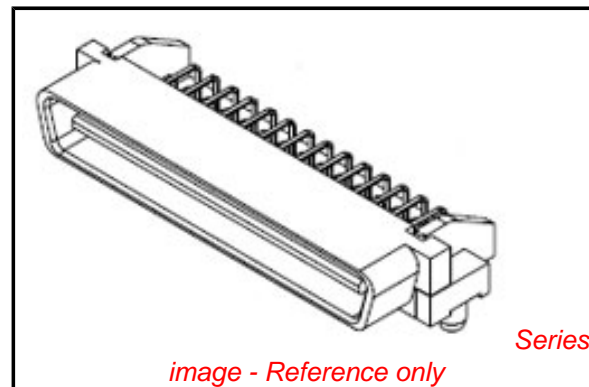
CSA LR19980  
 UL E29179

**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) 68  
 Circuits (maximum) 68  
 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**

**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**

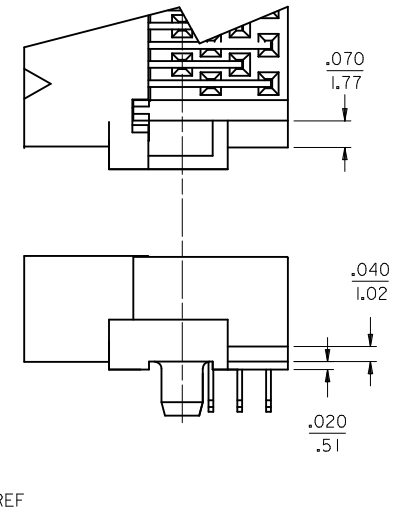
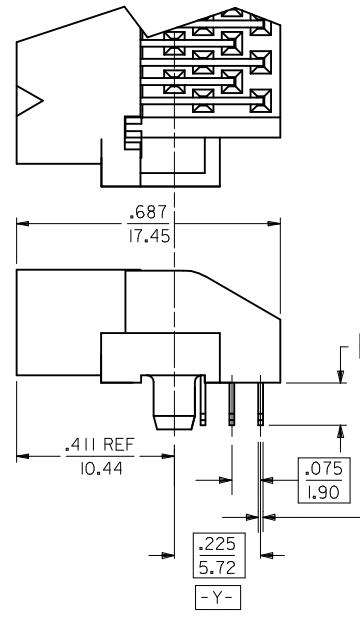
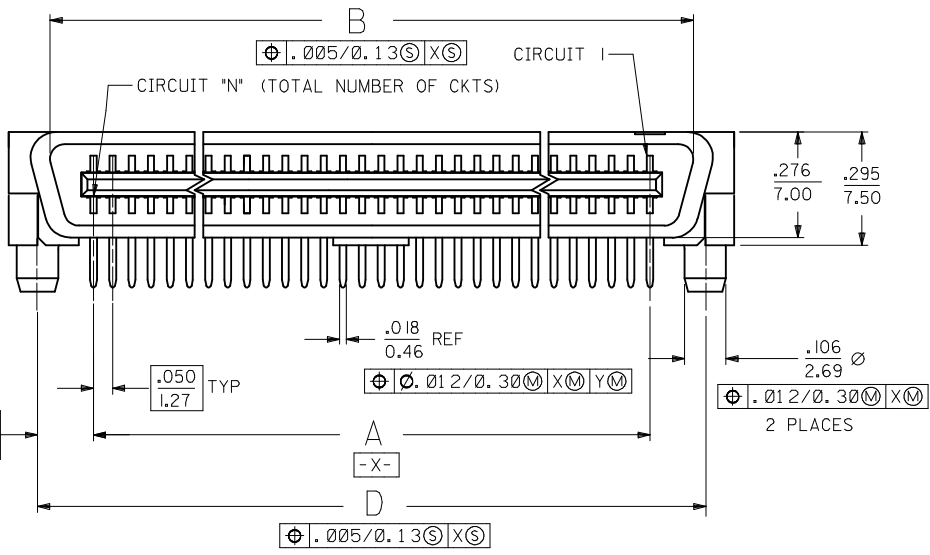
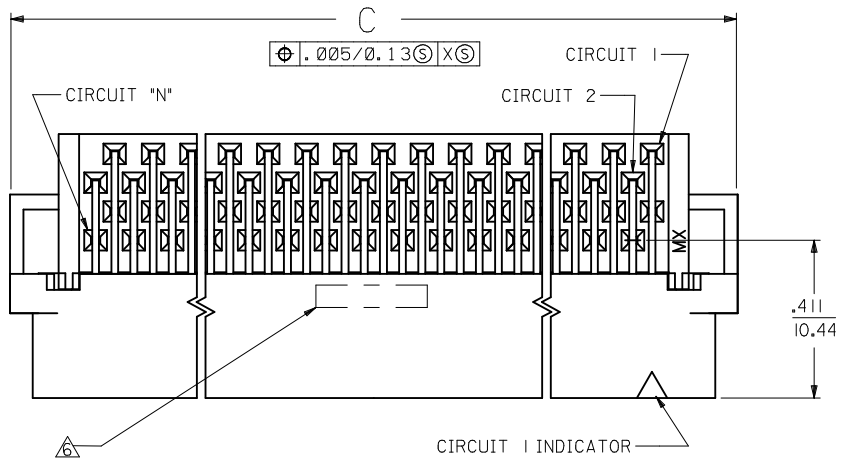
#### **Reference - Drawing Numbers**

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

This document was generated on 05/31/2010

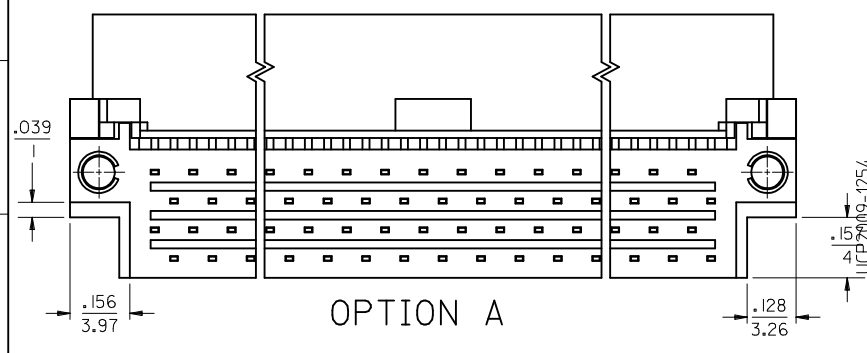
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NOTES:  
 1. MATERIAL:  
 HOUSING: LIQUID CRYSTAL POLYMER (LCP), GLAS-FILLED, UL 94V-0,  
 COLOR: BLASK  
 TERMINALS: BRASS  
 2. FINISH:  
 TERMINAL: 0.76 MICROMETERS/30 MICROINCHES MINIMUM SELECTIVE GOLD  
 IN CONTACT AREA, 1.27 MICROMETERS/50 MICROINCHES 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)



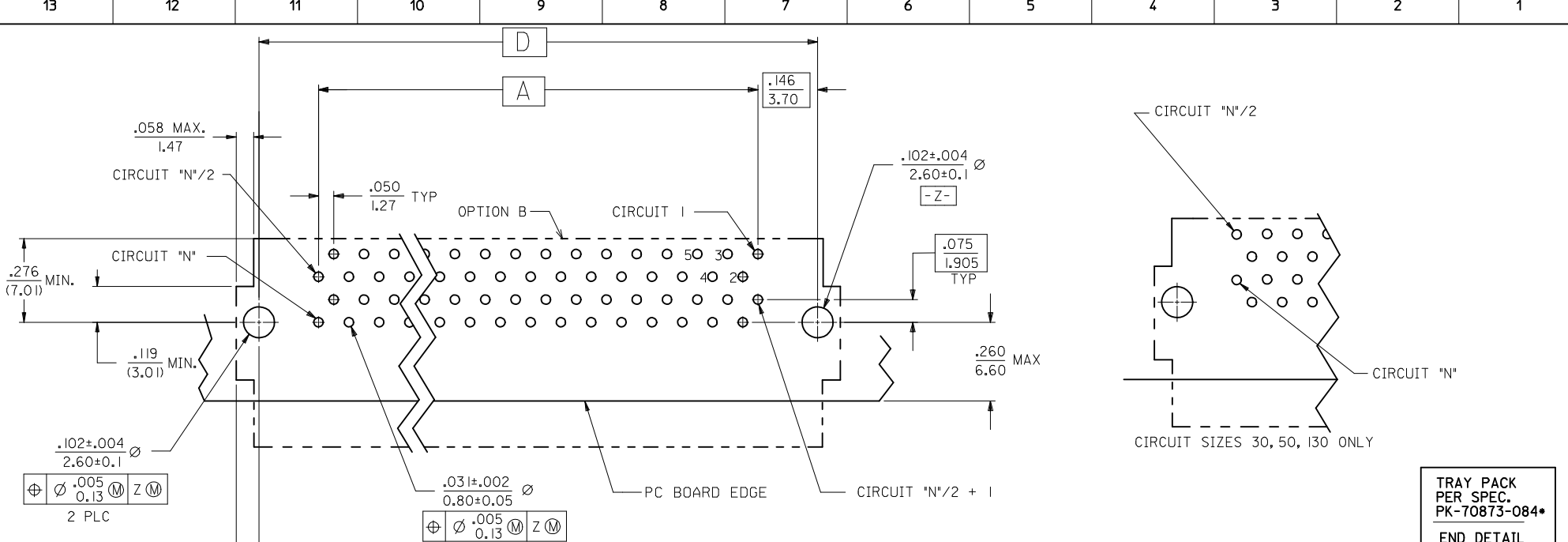
OPTION A

CHANGE MATERIAL	2008/12/19	DRWIN'S BARRA
EC NO:	2009/01/06	CHKD:BBARKER
REV	2009/01/06	APPR:SMILLER
DESCRIPTION	LCP 2909-1254	

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	DATE
RAN	1993/02/23
CHECKED BY	DATE
RAN	1993/02/23
APPROVED BY	DATE
CAB	1993/02/23
MATERIAL NO.	DOCUMENT NO.
SEE TABLE	SDA-71661-2***
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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



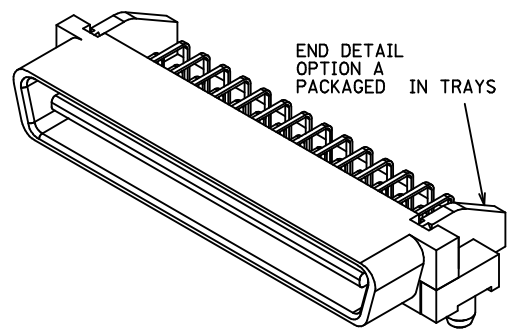
⊕ ∅ .005  
0.13 M Z M  
2 PLC

⊕ ∅ .005  
0.13 M Z M

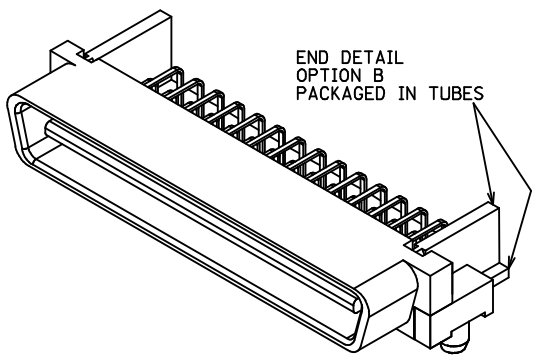
RECOMMENDED PC BOARD LAYOUT  
COMPONENT SIDE

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

END DETAIL  
OPTION "A"



50 CIRCUIT ASSEMBLY SHOWN



.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")	ITEM NUMBER

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 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1/2°
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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	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

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