

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

**Part Number:** [0716611561](#)  
**Status:** **Active**  
**Overview:** [ebbi\\_50d](#)  
**Description:** 1.27mm (.050") Pitch EBBI™ 50D Plug, Vertical, with Latch, 60 Circuits, 3.40mm (.134") PC Tail Length

**Documents:**

[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**Agency Certification**

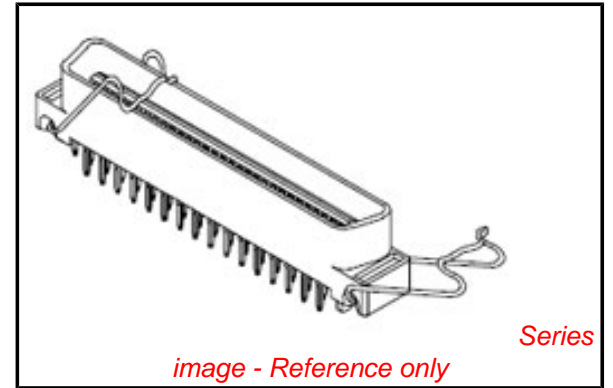
CSA LR19980  
 UL E29179

**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) 60  
 Circuits (maximum) 60  
 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 Copper Alloy  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 4  
 Orientation Vertical  
 PC Tail Length (in) 0.134 In  
 PC Tail Length (mm) 3.40 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) 75  
 Plating min: Termination (µm) 1.91  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes



*image - Reference only*

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**  
**Not Reviewed**

**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	260

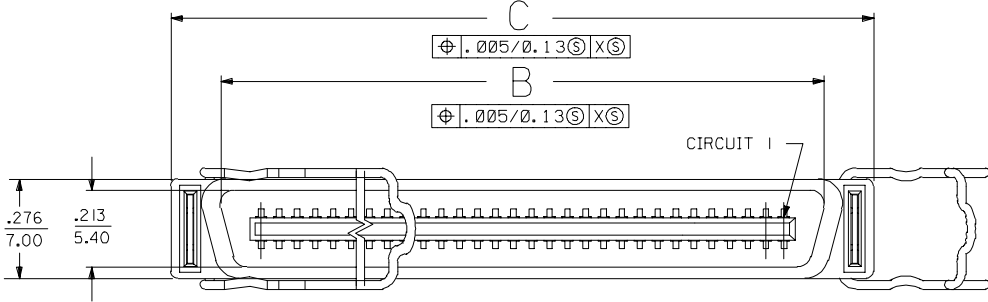
**Material Info****Reference - Drawing Numbers**

Packaging Specification	PK-70873-084*
Sales Drawing	SDA-71661-15**

This document was generated on 05/31/2010

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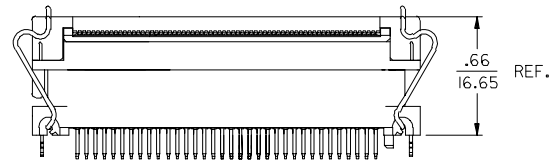
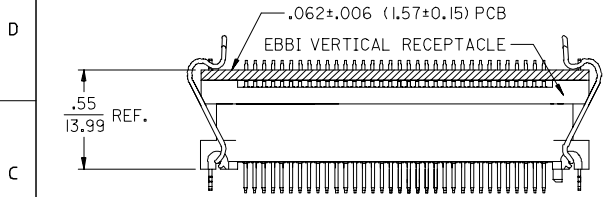
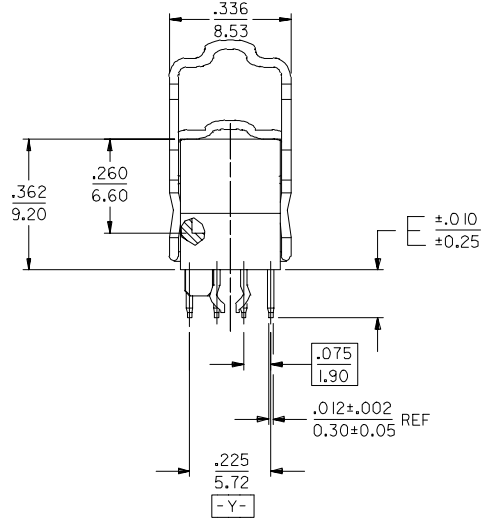
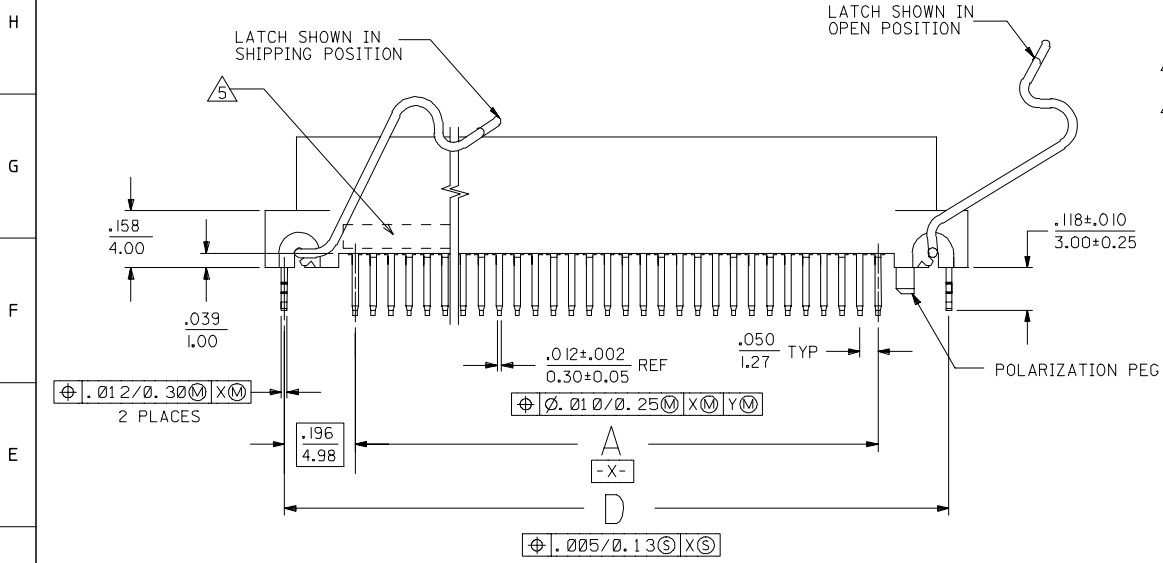
13 12 11 10 9 8 7 6 5 4 3 2 1



**NOTES:**

- 1) MATERIALS:  
HOUSING - LIQUID CRYSTAL POLYMER (LCP), GLASS FILLED, UL94V-0, COLOR: BLACK  
TERMINALS - COPPER ALLOY  
METAL PEGS - COPPER ALLOY  
METAL LATCHES - STAINLESS STEEL.
- 2) PLATING:  
TERMINALS:  
30 MICROINCH/0.76 MICROMETER MINIMUM GOLD IN CONTACT AREA AND 50 MICROINCH/1.27 MICROMETER MINIMUM TIN IN TAIL AREA OVER NICKEL UNDERPLATING OVERALL.  
METAL PEGS:  
50 MICROINCHES/1.27 MICROMETER MINIMUM TIN
- 3) ASSEMBLY MATES WITH MOLEX P/N 71660-\*\*\*\*. CONFORMS TO PRODUCT SPECIFICATION PS-71660.

- △ RECOMMENDED P.C. BOARD THICKNESS IS .062 (1.6).
- △ FOUR DIGIT DATE CODE (WK YR), EXAMPLE => 26 96 LOCATED IN AREA INDICATED.



EBBI VERTICAL RECEPTACLE SHOWN LATCHED TO EBBI PLUG (SDA-71660-3\*\*\*)

EBBI IDT RECEPTACLE SHOWN LATCHED TO EBBI PLUG (SDA-71660-3\*\*\*)

**REFERENCE APPLICATION VIEWS**

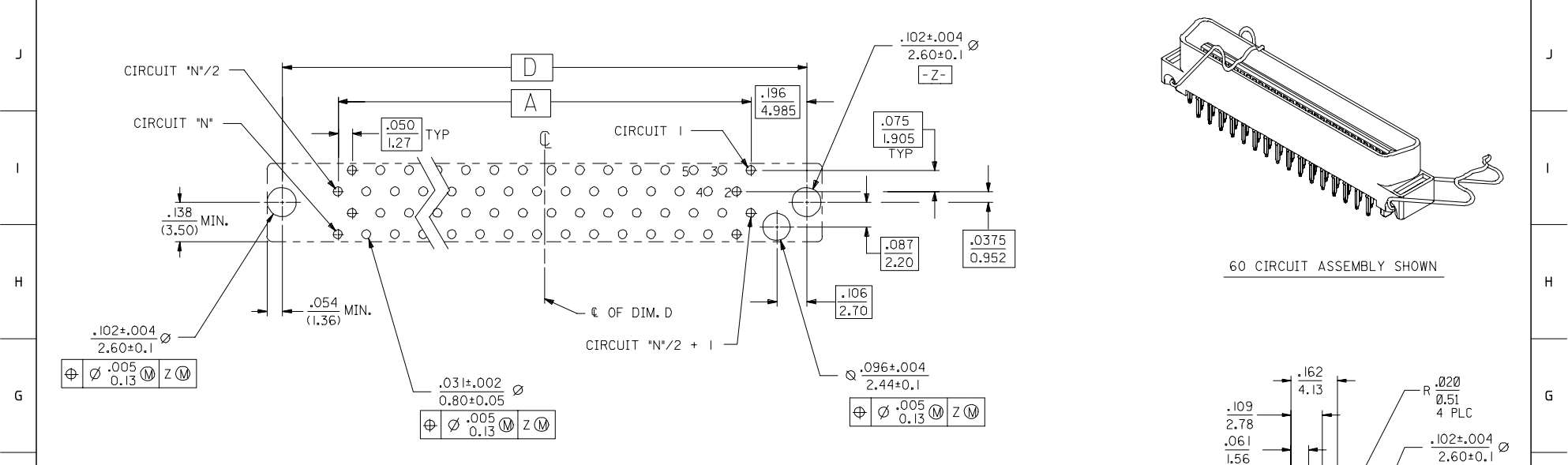
NOTE FOR LEAD FREE CONVERSION:  
THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD.

2	C
1	C
SHT	REV

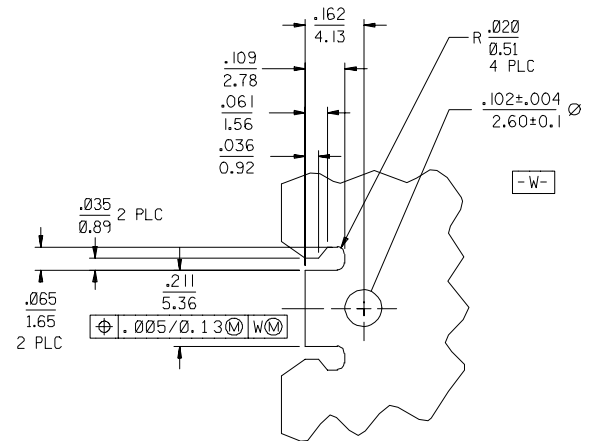
CHG LATCH GEO FC NO: UCP2005-2042 DRAWNSMART 2005/07/19 CHKD:BBARKER 2005/07/19 APPR:SMILLER 2005/07/20 REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- ANGULAR ±1/2°	IN/MM DRAWN BY DATE DGA 09/15/2005 CHECKED BY DATE RAN 09/15/2005 APPROVED BY DATE GWF 09/15/2005	4:1	INCH	MOLEX INCORPORATED SALES ASSEMBLY MOLEX EBBI 50D VERT PLUG WITH BAIL LATCHES
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
			SDA-71661-15**	SDA-71661-15**	1 OF 2	

12 11 10 9 8 7 6 5 4 3 2 1

13 12 11 10 9 8 7 6 5 4 3 2 1



RECOMMENDED PC BOARD LAYOUT COMPONENT SIDE



DETAIL FOR RECEPTACLE PCB LATCHING

	.134 (3.40)	2.042 (51.88)	2.149 (54.58)	1.875 (47.65)	1.650 (41.91)	68	71661-1569	PK-70873-0845
	.134 (3.40)	1.842 (46.80)	1.949 (49.50)	1.676 (42.57)	1.450 (36.83)	60	71661-1561	PK-70873-0845
	.110 (2.79)	2.342 (59.50)	2.449 (62.20)	2.176 (55.27)	1.950 (49.53)	80	71661-1580	PK-70873-0846
	.110 (2.79)	2.042 (51.88)	2.149 (54.58)	1.875 (47.65)	1.650 (41.91)	68	71661-1568	PK-70873-0845
C	.110 (2.79)	1.842 (46.80)	1.949 (49.50)	1.676 (42.57)	1.450 (36.83)	60	71661-1560	PK-70873-0845
	.110 (2.79)	1.092 (27.75)	1.199 (30.45)	.925 (23.52)	.700 (17.78)	30	71661-1530	PK-70873-0840
	E	D	C	B	A	CKT (*N)	MATERIAL NUMBER	PACKAGING SPECIFICATION

CHG ISO GEOMETRY FC NO: UCP2005-2042 DRAWNSMART 2005/07/19 CHKD:BBARKER 2005/07/19 APPR:SMILLER 2005/07/20 REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla=0$ $\nabla=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ±.005 2 PLACES ± 0.13 ±.01 1 PLACE ± 0.25 ± --- ANGULAR ±1/2°	ECOMP DATE DGA 09/15/1996 CHECKED BY RAN 09/15/1996 APPROVED BY GWF 09/15/1996	INCH LATCHING TITLE SALES ASSEMBLY MOLEX EBBI 50D VERT PLUG WITH BAIL LATCHES	INCH	THIRD ANGLE PROJECTION
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE MATERIAL NO. SIZE C	MOLEX MOLEX INCORPORATED DOCUMENT NO. SDA-71661-15**	SHEET NO. 2 OF 2		
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

13 12 11 10 9 8 7 6 5 4 3 2 1