

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

**Part Number:** [0716612960](#)  
**Status:** **Active**  
**Overview:** [ebbi\\_50d](#)  
**Description:** 1.27mm (.050") Pitch EBBI™ 50D Plug, Right Angle, Blind-Mate, 60 Circuits, 2.79mm (.110") PC Tail Length

**Documents:**

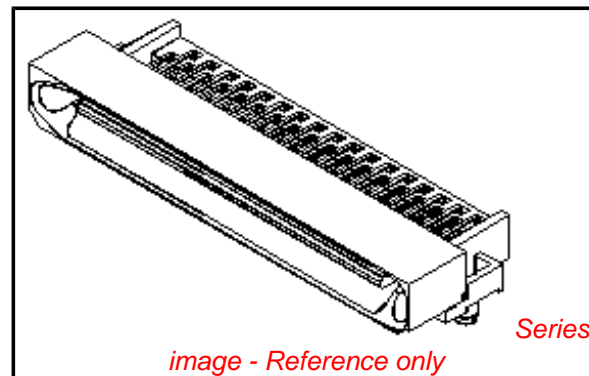
[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**General**

Product Family	PCB Headers
Series	<a href="#">71661</a>
Application	Board-to-Board, Wire-to-Board
Overview	<a href="#">ebbi_50d</a>
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
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	None
Lock to Mating Part	None
Material - Metal	Brass
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
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
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	No
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole



**EU RoHS**

**ELV and RoHS Compliant**

**REACH SVHC**

**Contains SVHC: No**

**Halogen-Free**

**Status**

**Not Reviewed**

**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.

**China RoHS**



**Search Parts in this Series**

[71661Series](#)

**Mates With**

EBBI™ 50D Receptacle [71660](#) , [87552](#)

**Electrical**

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

**Solder Process Data**

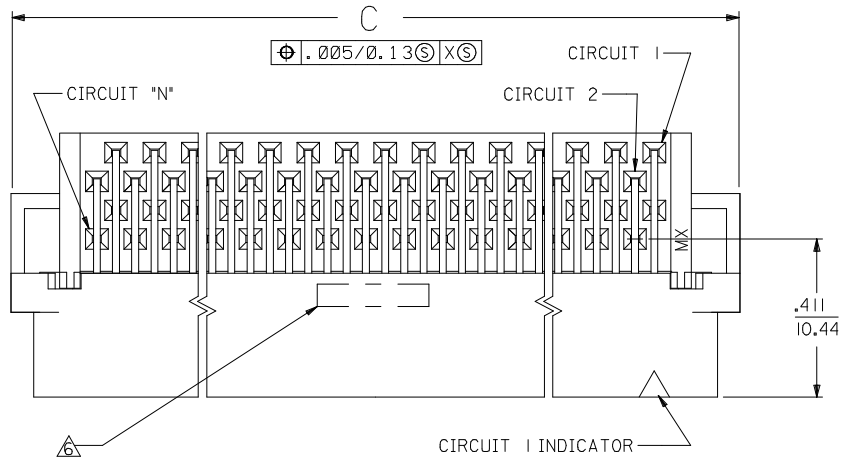
Duration at Max. Process Temperature (seconds)	40
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	245

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

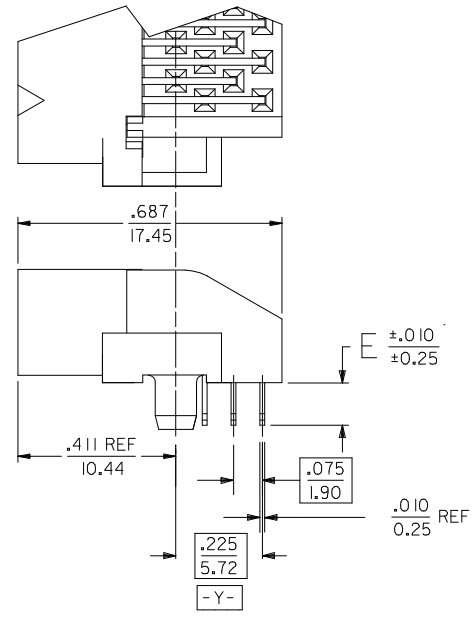
Packaging Specification	PK-70873-084*
Sales Drawing	SD-71661-007

This document was generated on 05/31/2010

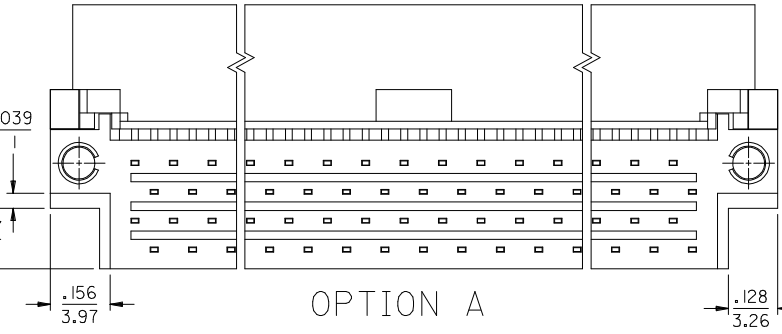
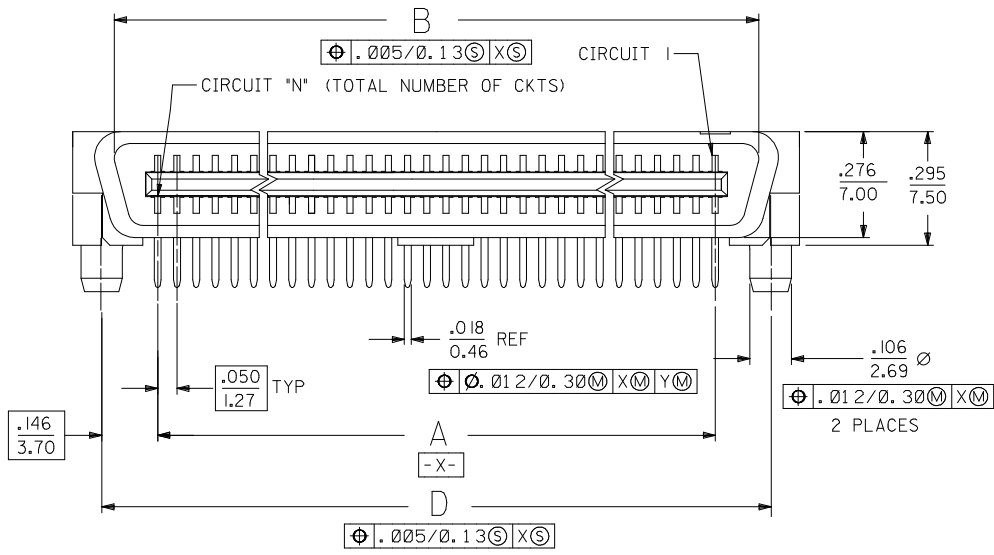
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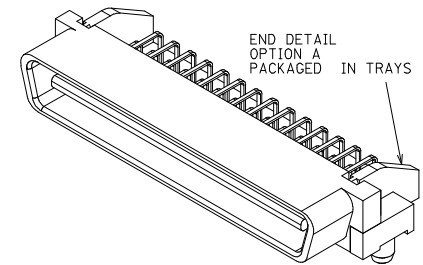
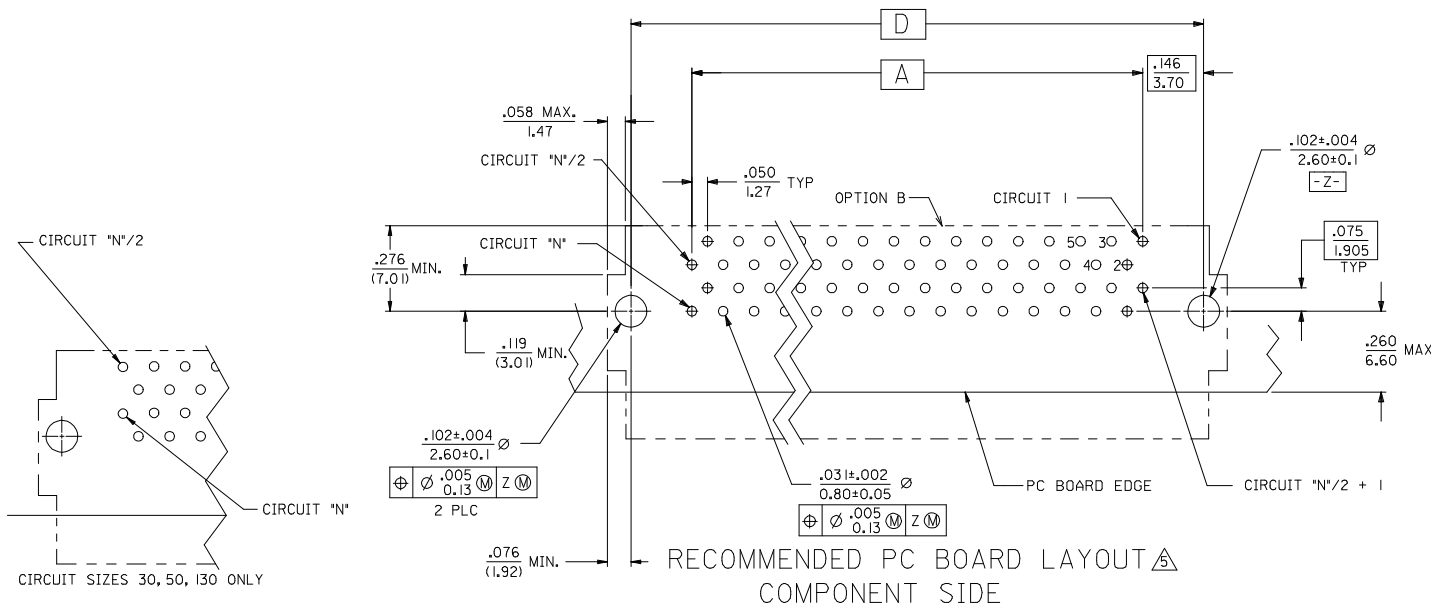
- NOTES:**
- MATERIALS:**  
HOUSING: LIQUID CRYSTAL POLYMER (LCP), GLASS-FILLED, UL 94V-0,  
COLOR: BLACK  
TERMINALS: BRASS.
  - FINISH:**  
TERMINAL: SELECTIVE GOLD (Au) IN THE CONTACT AREA;  
THICKNESS= .76 MICROMETER (30 MICROINCH) MINIMUM;  
SELECTIVE TIN (Sn) ALLOY IN THE PC TAIL AREA;  
THICKNESS= 1.27 MICROMETER (50 MICROINCH) MINIMUM;  
NICKEL (Ni) UNDERPLATE OVERALL.
  - ASSEMBLY MATES WITH MOLEX P/N SDA-71660-\*\*\*\*
  - CONFORMS TO PRODUCT SPEC: PS-71660.
- RECOMMENDED P.C. BOARD THICKNESS IS .062 (1.6).
- 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.



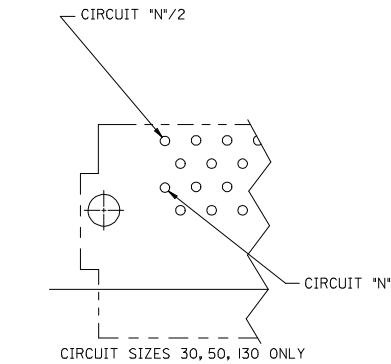
END DETAIL  
OPTION A  
(BOTH ENDS)



<b>CHANGE MATERIAL</b> EC NO: UCP2009-1254 DRWN:MSI:BARRA 2008/12/19 CHKD:BBARKER 2009/01/06 APPR:SMILLER 2009/01/06	DESCRIPTION REV	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>---</td> <td>---</td> </tr> <tr> <td>3 PLACES ±</td> <td>---</td> <td>±.010</td> </tr> <tr> <td>2 PLACES ±</td> <td>0.25</td> <td>---</td> </tr> <tr> <td>1 PLACE ±</td> <td>---</td> <td>---</td> </tr> </table>		mm	INCH	4 PLACES ±	---	---	3 PLACES ±	---	±.010	2 PLACES ±	0.25	---	1 PLACE ±	---	---	DIMENSION STYLE <b>IN/MM</b>	SCALE <b>4:1</b>	DESIGN UNITS <b>INCH</b>	THIRD ANGLE PROJECTION
			mm	INCH																		
4 PLACES ±	---	---																				
3 PLACES ±	---	±.010																				
2 PLACES ±	0.25	---																				
1 PLACE ±	---	---																				
DRAWN BY RKADAMS	DATE 2004/08/18	CHECKED BY BBARKER	DATE 2004/08/18	<b>SALES ASSEMBLY EBBI 50D RIGHT ANGLE PLUG CONNECTOR</b>																		
APPROVED BY SMILLER		DATE 2004/08/18		<b>MOLEX INCORPORATED</b>																		
MATERIAL NO. <b>SEE TABLE</b>		DOCUMENT NO. <b>SD-71661-007</b>		SHEET NO. <b>1 OF 2</b>																		
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																						



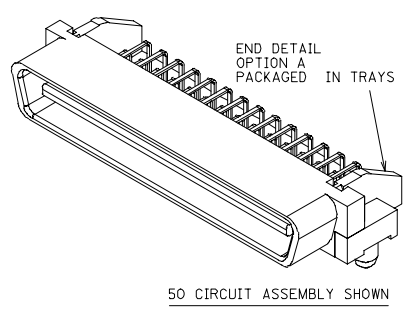
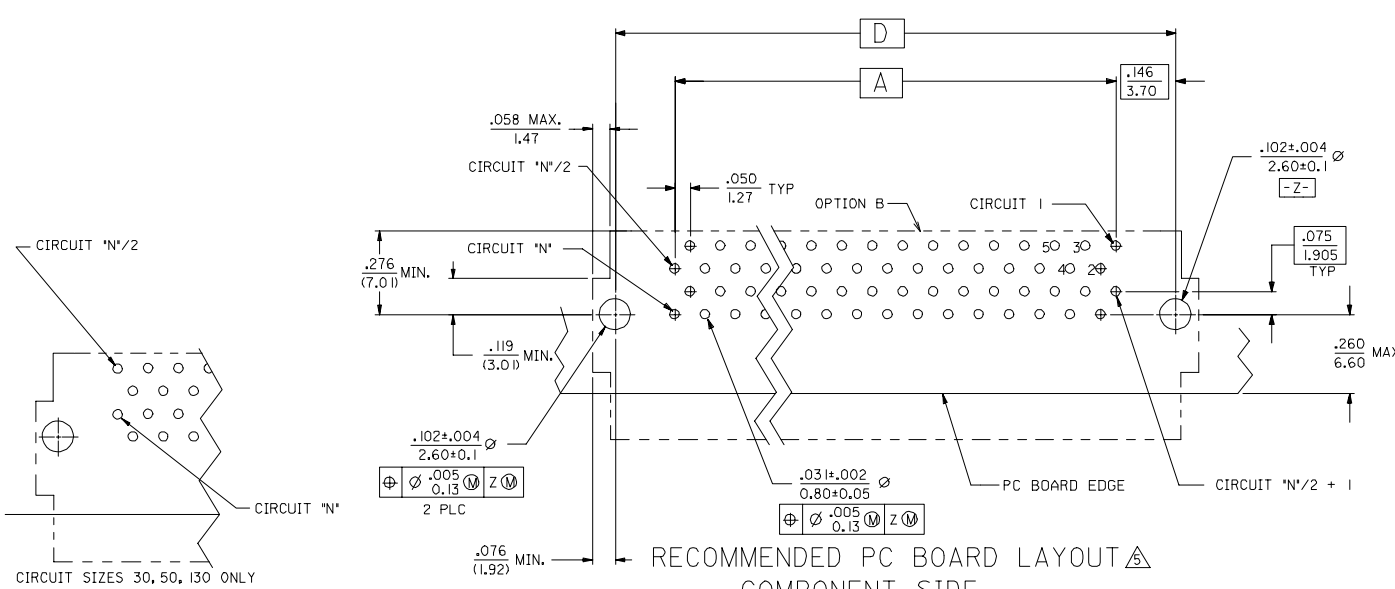
50 CIRCUIT ASSEMBLY SHOWN



		TRAY PACK PER SPEC. PK-70873-084*					END DETAIL OPTION 'A'
		D	C	B	A	CKT ('N')	ITEM NUMBER
.125 (3.18)	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		
	2.741 (69.63)	2.892 (73.45)	2.676 (67.97)	2.450 (62.23)	100		
	2.241 (56.93)	2.392 (60.75)	2.176 (55.27)	1.950 (49.53)	80		
	1.941 (49.31)	2.092 (53.13)	1.875 (47.65)	1.650 (41.91)	68		
	1.741 (44.23)	1.892 (48.05)	1.676 (42.57)	1.450 (36.83)	60		71661-2936
	1.491 (37.88)	1.642 (41.70)	1.426 (36.22)	1.200 (30.48)	50		
	1.241 (31.53)	1.392 (35.35)	1.176 (29.87)	.950 (24.13)	40		
	.991 (25.18)	1.142 (29.00)	.925 (23.52)	.700 (17.78)	30		
	.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		
2.741 (69.63)		2.892 (73.45)	2.676 (67.97)	2.450 (62.23)	100		71661-2910
2.241 (56.93)		2.392 (60.75)	2.176 (55.27)	1.950 (49.53)	80		71661-2980
1.941 (49.31)		2.092 (53.13)	1.875 (47.65)	1.650 (41.91)	68		71661-2968
1.741 (44.23)		1.892 (48.05)	1.676 (42.57)	1.450 (36.83)	60		71661-2960
1.491 (37.88)		1.642 (41.70)	1.426 (36.22)	1.200 (30.48)	50		71661-2950
1.241 (31.53)		1.392 (35.35)	1.176 (29.87)	.950 (24.13)	40		
.991 (25.18)		1.142 (29.00)	.925 (23.52)	.700 (17.78)	30		71661-2930

<b>SEE SHEET 1</b> EC NO: LCP2009-1254 2008/12/19 DRWNS/IBARRA 2009/01/06 CHK/BBARKER APPR:SMILLER 2009/01/06	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		4 PLACES ±--- ±--- 3 PLACES ±--- ±.010 2 PLACES ±0.25 ±--- 1 PLACE ±--- ±---		DRAWN BY DATE RKADAMS 2004/08/18 CHECKED BY DATE BBARKER 2004/08/18 APPROVED BY DATE SMILLER 2004/08/18		TITLE SALES ASSEMBLY EBBI 50D RIGHT ANGLE PLUG CONNECTOR		MOLEX INCORPORATED	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-71661-007		SHEET NO. 2 OF 2	
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



RECOMMENDED PC BOARD LAYOUT  
COMPONENT SIDE

TRAY PACK  
PER SPEC.  
PK-10873-084+  
END DETAIL  
OPTION 'A'

Circuit Size	Dimensions (mm)					Item Number
	30	50	68	80	100	
.125 (3.18)	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	
	2,741 (69.63)	2,892 (73.45)	2,676 (67.97)	2,450 (62.23)	100	
	2,241 (56.93)	2,392 (60.75)	2,176 (55.27)	1,950 (49.53)	80	
	1,941 (49.31)	2,092 (53.13)	1,875 (47.65)	1,650 (41.91)	68	
.110 (2.79)	1,741 (44.23)	1,892 (48.05)	1,676 (42.57)	1,450 (36.83)	60	71661-2936
	1,491 (37.88)	1,642 (41.70)	1,426 (36.22)	1,200 (30.48)	50	
	1,241 (31.53)	1,392 (35.35)	1,176 (29.87)	.950 (24.13)	40	
	.991 (25.18)	1,142 (29.00)	.925 (23.52)	.700 (17.78)	30	
	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		
2,741 (69.63)	2,892 (73.45)	2,676 (67.97)	2,450 (62.23)	100	71661-2910	
2,241 (56.93)	2,392 (60.75)	2,176 (55.27)	1,950 (49.53)	80	71661-2980	
1,941 (49.31)	2,092 (53.13)	1,875 (47.65)	1,650 (41.91)	68	71661-2968	
1,741 (44.23)	1,892 (48.05)	1,676 (42.57)	1,450 (36.83)	60	71661-2960	
1,491 (37.88)	1,642 (41.70)	1,426 (36.22)	1,200 (30.48)	50	71661-2950	
1,241 (31.53)	1,392 (35.35)	1,176 (29.87)	.950 (24.13)	40		
.991 (25.18)	1,142 (29.00)	.925 (23.52)	.700 (17.78)	30	71661-2930	

E D C B A CKT ('N') ITEM NUMBER

<b>ADD 71661-2960</b> EC NO: UCP2008-047 DRAWN BY: DRWINSI BARRA CHECKED BY: CHKCBARKER APPROVED BY: APRR:SMILLER DATE: 2007/08/29 DATE: 2007/09/14 DATE: 2007/09/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) 4 PLACES ± .010 3 PLACES ± .010 2 PLACES ± 0.25 1 PLACE ± .010 ANGULAR ±1/2°	DIMENSION STYLE IN/MM	SCALE ---	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	
	DRAWN BY: RKADAMS CHECKED BY: BBARKER APPROVED BY: SMILLER DATE: 08/18/2004 DATE: 08/18/2004 DATE: 08/18/2004	TITLE SALES ASSEMBLY EBB1 50D RIGHT ANGLE PLUG CONNECTOR	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-71661-007	SHEET NO. 2 OF 2		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						
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