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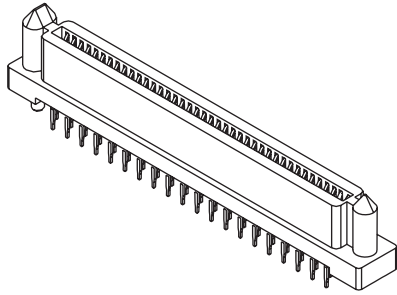
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Jameco Part Number 1962519

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71660

Vertical, Blind Mate



Features and Benefits

- Polarized guide posts on ends provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Mates to standard 1.60mm (.062") PCB card edge
- First-mate/last-break terminal option available
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661-7XXX and 71661-25XX
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30μ" min. Gold over Nickel in contact area,
100μ" min. Tin over Nickel on tails
Operating Temperature: -40 to +105°C

Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
30	71660-7030	71660-7230	71660-7630	Yes
40*	71660-7040	71660-7240	71660-7640	
50*	71660-7050	71660-7250	71660-7650	
60	71660-7060	71660-7260	71660-7660	
68*	71660-7068	71660-7268	71660-7668	

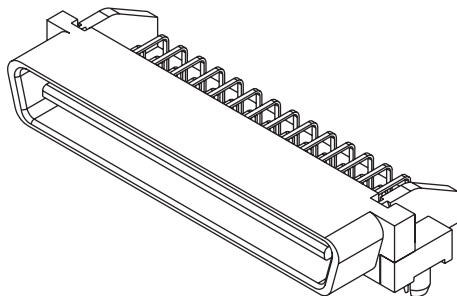
Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
80*	71660-7080	71660-7280	71660-7680	Yes
100	71660-7100	71660-7300	71660-7700	
120	71660-7120	71660-7320	71660-7720	
130	71660-7130	71660-7330	71660-7730	

* Contact Molex for part numbers with advanced terminals for first-mate/last-break mating

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Right Angle



Features and Benefits

- Polarized D-shaped leaf-contact connector for perpendicular board packaging
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30μ" min. Gold over Nickel in contact area,
100μ" min. Tin over Nickel on tails
Operating Temperature: -40 to +105°C

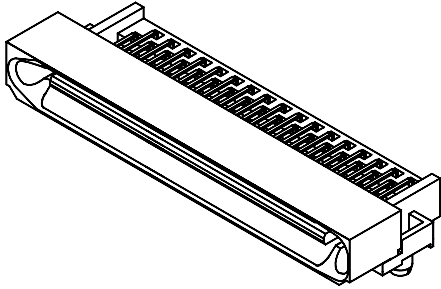
Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.18mm (.125")	
30	71661-2030	71661-2330	Yes
40	71661-2040	71661-2340	
50	71661-2050	71661-2350	
60	71661-2060	71661-2360	
68	71661-2068	71661-2368	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.18mm (.125")	
80	71661-2080	71661-2380	Yes
100	71661-2100	71661-2400	
120	71661-2120	71661-2420	
130	71661-2130	71661-2430	

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Right Angle, Blind Mate



Circuits	Order No.	Lead-free
30	Contact Molex	Yes
40	71661-2540	
50	Contact Molex	
60	Contact Molex	
68	71661-2568	
	71661-2518*	
80	71661-2580	
100	71661-2511	
130	71661-2513	

* 3.18mm (.125") tails for thicker boards

Features and Benefits

- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Surface Mount Compatible
- 2.79mm (.110") tail length

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660-7XXX, 87537
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

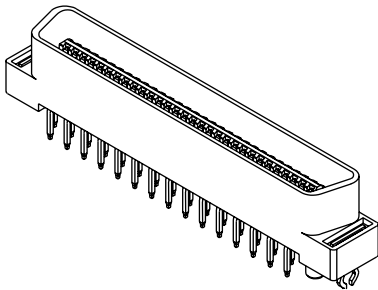
Physical

Housing: High-temperature thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: 30µ" min. Gold over Nickel in contact area,
 100µ" min. Tin over Nickel on tails
 Operating Temperature: -40 to +105°C

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Vertical



Features and Benefits

- Polarized D-shaped leaf-contact connector
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660 and 87552
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
 Retention Clip: Copper Alloy
 Contact: Copper Alloy
 Plating: 30µ" min. Gold over Nickel in contact area,
 100µ" min. Tin over Nickel on tails
 Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
30	15-92-2430	15-92-2030	Yes
40	15-92-2440	15-92-2040	
50	15-92-2450	15-92-2050	
60	15-92-2460	15-92-2060	
68	15-92-2468	15-92-2068	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
80	15-92-2480	15-92-2080	Yes
100	15-92-2500	15-92-2100	
120	15-92-2520	15-92-2120	
130	15-92-2530	15-92-2130	

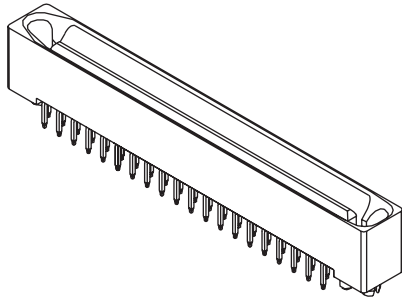
1.27mm (.050") Pitch

EBBI™ 50D

Plug

71661

Vertical, Blind Mate



Features and Benefits

- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Press-fit retention pegs for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board stacking
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660-7XXX
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: 30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin over Nickel on tails
 Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
30	71661-7030	71661-7230	Yes
40	71661-7040	71661-7240	
50	71661-7050	71661-7250	
60	71661-7060	71661-7260	
68	71661-7068	71661-7268	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
80	71661-7080	71661-7280	Yes
100	71661-7100	71661-7300	
120	71661-7120	71661-7320	
130	71661-7130	71661-7330	

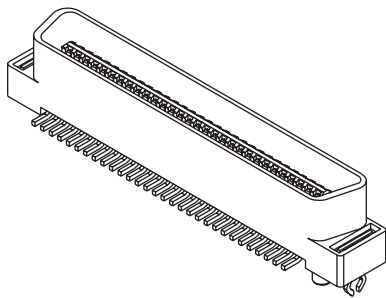
1.27mm (.050") Pitch

EBBI™ 50D

Plug

74139

Vertical SMT



Features and Benefits

- Polarized D-shaped leaf-contact connector for parallel board packaging
- SMT high-temperature 94V-0 thermoplastic
- Metal retention clips for mechanical hold down before and after processing
- SMT terminals in-line on 1.27mm (.050") spacing for easy processing

Reference Information

Product Specification: PS-71660
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980-239A
 Mates With: 71660 and 87552
 Designed In: Inches

Electrical

Voltage: 30V
 Current: 1.0A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
 Mating Force: 90g max.
 Unmating Force: 15g min.
 Normal Force: 90g
 Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
 Contact: Copper Alloy
 Plating: 30μ" min. Gold over Nickel in contact area,
 100μ" min. Tin over Nickel on tails
 Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
30	74139-5030	Yes
	74139-5031*	
40	74139-5040	
50	74139-5050	
60	74139-5060	

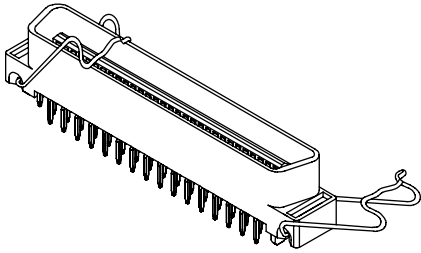
Circuits	Order No.	Lead-free
68	74139-5068	Yes
	74139-5069*	
80	74139-5080	
100	74139-5100	

* Longer clips for use with 2.95mm (.116") boards

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Vertical, with Bail Latches



Features and Benefits

- Bail latches provide secure mounting to mating EBBI receptacle
- Polarized D-shaped, leaf-contact connector
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g max.
Normal Force: 90g
Durability: 500 cycles min.

Physical

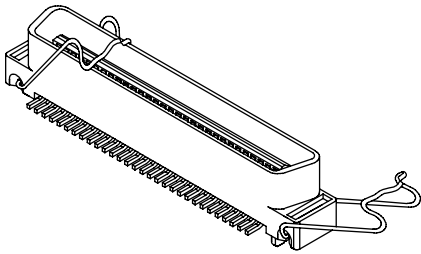
Housing: High temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Board Locks: Copper Alloy
Bail Latches: Stainless Steel
Plating: Contact Area—30µ" gold
Solder Tail Area—Tin
Underplating—Nickel
Operating Temperature: -40 to +105°C

Circuits	Order No.	Tail length	Lead-free
30	71661-1530	2.79mm (.110")	Yes
60	71661-1560		
	71661-1561	3.40mm (.134")	
68	71661-1568	2.79mm (.110")	
	71661-1569	3.40mm (.134")	
80	71661-1580	2.79mm (.110")	

1.27mm (.050") Pitch EBBI™ 50D Plug

74139

Vertical, SMT, with Bail Latches



Features and Benefits

- Bail latches provide secure mounting to mating EBBI receptacle
- Polarized D-shaped, leaf-contact connector for parallel board packaging
- SMT high temperature thermoplastic

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

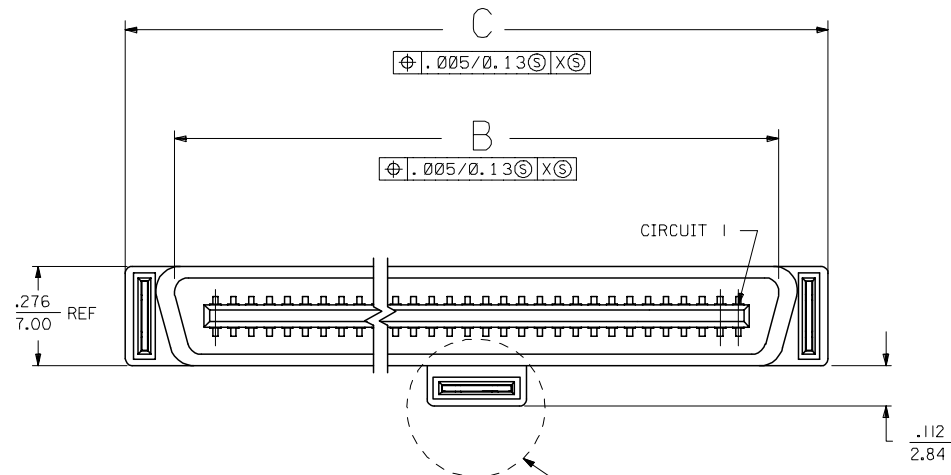
Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g max.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Board Locks: Copper Alloy
Bail Latches: Stainless Steel
Plating: Contact Area—30µ" Gold
Solder Tail Area—Tin
Underplating—Nickel
Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
30	74139-5530	Yes
60	74139-5660	
	74139-5568	
68	74139-5569*	
	74139-5600	
100	74139-5600	

*Longer clips for use with 2.95mm (.116") boards

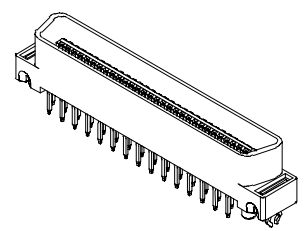
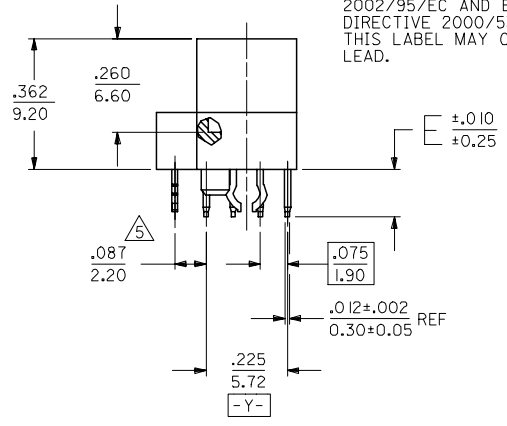
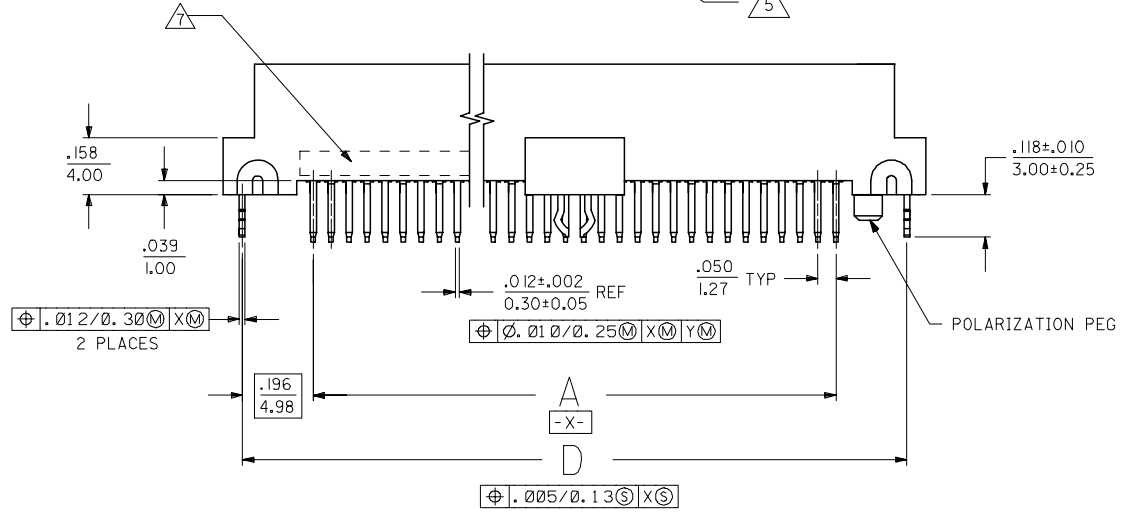


NOTES:

- 1) MATERIALS:
HOUSING - LIQUID CRYSTAL POLYMER (LCP), GLASS FILLED, UL94V-0, COLOR: BLACK
TERMINALS - COPPPER ALLOY
METAL PEGS - COPPPER ALLOY
- 2) TERMINAL FINISH:
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.
- 3) ASSEMBLY MATES WITH MOLEX P/N SDA-71660-****.
- 4) CONFORMS TO PRODUCT SPECIFICATION PS-71660.
- 5) CENTER PEG IS ONLY ON I20 AND I30 CIRCUIT ASSEMBLIES.
- 6) RECOMMENDED P.C. BOARD THICKNESS IS .062 (1.6).
- 7) FOUR DIGIT DATE CODE (WK YR), EXAMPLE => 26 96 LOCATED IN AREA INDICATED.
- 8) SEE CHART ON SHEET 2 FOR PACKAGING INFORMATION.

NOTE FOR LEAD FREE CONVERSION:

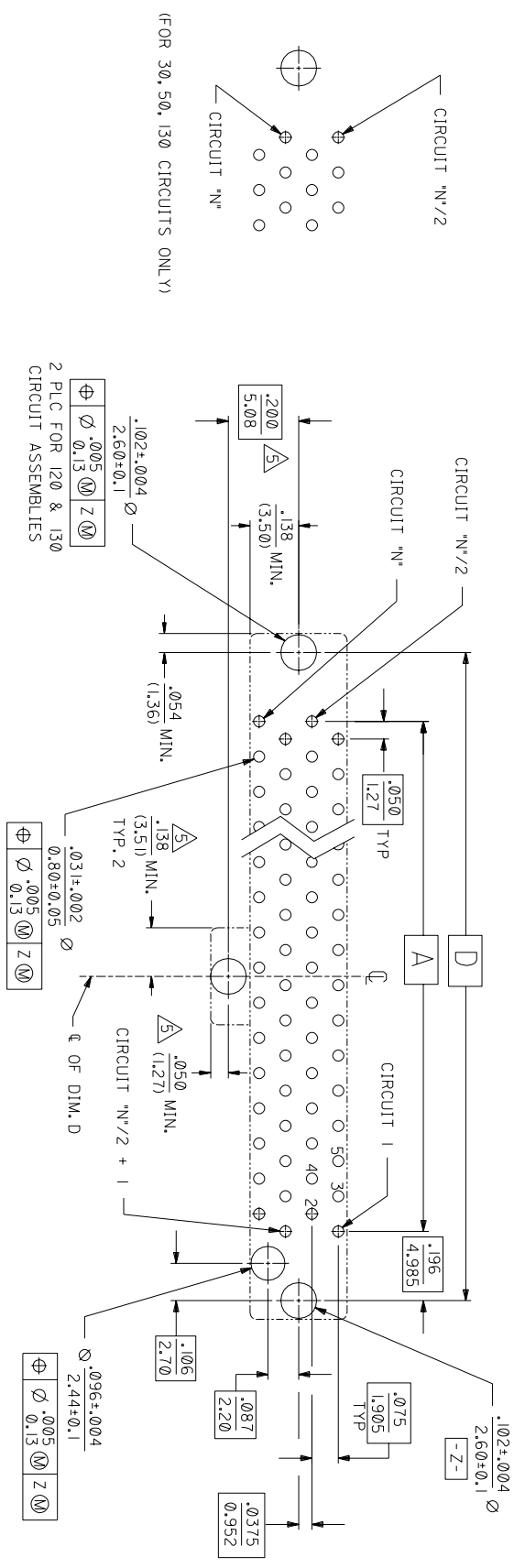
THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD.



60 CIRCUIT ASSEMBLY SHOWN
SCALE- 2:1

CHG TERMINAL MATL FC NO: UCP2005-0775 DRAWN: BARKER 2005/06/13 CHKD: MORGAN 2005/06/13 APPR: SMILLER 2005/06/23 M	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	SHEET NO. 1 OF 2
		4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .010 1 PLACE ± 0.25 ± --- ANGULAR ±1/2°	DRAWN BY RAN CHECKED BY RAN APPROVED BY CAB MATERIAL NO. SEE TABLE SIZE C	DATE 1992/06/15 DATE 1992/06/15 DATE 1992/06/15	TITLE SALES ASSEMBLY MOLEX EBBI 50D VERTICAL PLUG CONNECTOR MOLEX INCORPORATED	DOCUMENT NO. SDA-71661-1***	SHEET NO. 1 OF 2		

2	K
1	M
SHT	REV



RECOMMENDED PC BOARD LAYOUT
COMPONENT SIDE
(FOR 40, 60, 68, 80, 100, 120 CIRCUITS ONLY)

CIRCUIT NUMBER	EDP NUMBER	CIRCUIT SIZE (N*)	A	B	C	D	E	PACKAGING
71661-1430	015-92-2530	130	3.200 (8.128)	3.426 (87.02)	3.699 (93.95)	3.592 (91.25)	.110 (2.79)	TRAYS PER PK-71660
71661-1420	015-92-2520	120	2.950 (74.93)	3.176 (80.67)	3.449 (87.60)	3.342 (84.90)	.110 (2.79)	TRAYS PER PK-71660
71661-1400	015-92-2500	100	2.450 (62.23)	2.676 (67.97)	2.949 (74.90)	2.842 (72.20)	.110 (2.79)	TRAYS PER PK-71660
71661-1381	015-92-2481	80	1.950 (49.53)	2.176 (55.27)	2.449 (62.20)	2.342 (59.50)	.110 (2.79)	TUBES PER PK-70873-0817
71661-1380	015-92-2480	80	1.950 (49.53)	2.176 (55.27)	2.449 (62.20)	2.342 (59.50)	.110 (2.79)	TRAYS PER PK-71660
71661-1368	015-92-2468	68	1.650 (41.91)	1.875 (47.65)	2.149 (54.58)	2.042 (51.88)	.110 (2.79)	TRAYS PER PK-71660
71661-1360	015-92-2460	60	1.450 (36.83)	1.676 (42.57)	1.949 (49.50)	1.842 (46.80)	.110 (2.79)	TRAYS PER PK-71660
71661-1350	015-92-2450	50	1.200 (30.48)	1.426 (36.22)	1.699 (43.15)	1.592 (40.45)	.110 (2.79)	TRAYS PER PK-71660
71661-1340	015-92-2440	40	.950 (24.13)	1.176 (29.87)	1.449 (36.80)	1.342 (34.10)	.110 (2.79)	TRAYS PER PK-71660
71661-1330	015-92-2430	30	.700 (17.78)	.925 (23.52)	1.199 (30.45)	1.092 (27.75)	.110 (2.79)	TRAYS PER PK-71660
71661-1130	015-92-2130	130	3.200 (8.128)	3.426 (87.02)	3.699 (93.95)	3.592 (91.25)	.134 (3.40)	TRAYS PER PK-71660
71661-1120	015-92-2120	120	2.950 (74.93)	3.176 (80.67)	3.449 (87.60)	3.342 (84.90)	.134 (3.40)	TRAYS PER PK-71660
71661-1100	015-92-2100	100	2.450 (62.23)	2.676 (67.97)	2.949 (74.90)	2.842 (72.20)	.134 (3.40)	TRAYS PER PK-71660
71661-1080	015-92-2080	80	1.950 (49.53)	2.176 (55.27)	2.449 (62.20)	2.342 (59.50)	.134 (3.40)	TRAYS PER PK-71660
71661-1068	015-92-2068	68	1.650 (41.91)	1.875 (47.65)	2.149 (54.58)	2.042 (51.88)	.134 (3.40)	TRAYS PER PK-71660
71661-1060	015-92-2060	60	1.450 (36.83)	1.676 (42.57)	1.949 (49.50)	1.842 (46.80)	.134 (3.40)	TRAYS PER PK-71660
71661-1050	015-92-2050	50	1.200 (30.48)	1.426 (36.22)	1.699 (43.15)	1.592 (40.45)	.134 (3.40)	TRAYS PER PK-71660
71661-1040	015-92-2040	40	.950 (24.13)	1.176 (29.87)	1.449 (36.80)	1.342 (34.10)	.134 (3.40)	TRAYS PER PK-71660
71661-1030	015-92-2030	30	.700 (17.78)	.925 (23.52)	1.199 (30.45)	1.092 (27.75)	.134 (3.40)	TRAYS PER PK-71660

13	12	11	10	9	8	7	6	5	4	3	2	1
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SALES ASSEMBLY
MOLEX EBBI 50D VERTICAL
PLUG CONNECTOR

MOLEX INCORPORATED
6852
USA

DATE: 6/15/92

SDA-71661-1***

REVISIONS: SEE SHEET 1, SEE SHEET 1

DRG. NO. REV. LTR. REVISE ONLY ON CAD SYSTEM

DRG. BY: CAB SCALE: 4:1

FILE NAME: SDA-71661-1.DWG

DATE: 6/15/92

SIZE: C

A	B	C	D	E	F	G	H	I	J
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