

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0791091271](#)
Status: **Active**
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Vertical, Top/Bottom Entry, with Press-fit Plastic Pegs, without Cap, Tube, 0.76µm (30µ") Gold (Au) Selective, 44 Circuits, Leadfree

Documents:

[3D Model](#) [Product Specification PS-79107 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
UL E29179

General

Product Family PCB Receptacles
Series [79109](#)
Application Board-to-Board
Product Name Milli-Grid™

Physical

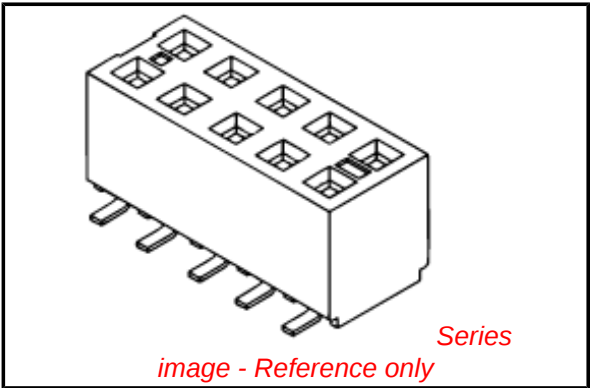
Circuits (Loaded) 44
Color - Resin Black
Durability (mating cycles max) 50
Flammability 94V-0
Glow-Wire Compliant No
Lock to Mating Part None
Material - Metal Phosphor Bronze
Material - Plating Mating Gold
Material - Plating Termination Tin
Material - Resin High Temperature Thermoplastic
Number of Rows 2
Orientation Vertical
PCB Locator Yes
PCB Retention Yes
Packaging Type Tube
Pitch - Mating Interface (in) 0.079 In
Pitch - Mating Interface (mm) 2.00 mm
Plating min: Mating (µin) 30
Plating min: Mating (µm) 0.75
Plating min: Termination (µin) 75
Plating min: Termination (µm) 1.875
Polarized to Mating Part No
Polarized to PCB No
Surface Mount Compatible (SMC) N/A
Temperature Range - Operating -55°C to +105°C
Termination Interface: Style Surface Mount

Electrical

Current - Maximum per Contact 1A
Voltage - Maximum 125V

Solder Process Data

Duration at Max. Process Temperature (seconds) 10
Lead-free Process Capability Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature 1
Process Temperature max. C 260



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
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

[79109Series](#)

Mates With

[87833](#) , [87832](#) , [87831](#) , [87758](#) , [87759](#) ,
[87760](#)

Material Info

Reference - Drawing Numbers

Product Specification
Sales Drawing

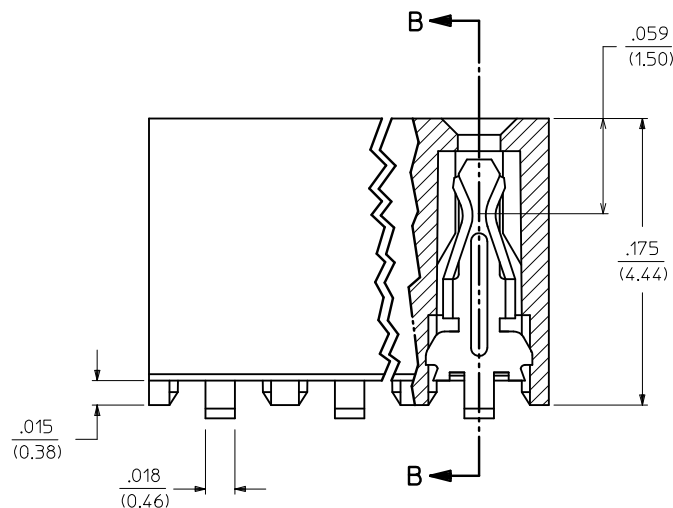
PS-79107
SDA-79109-****

This document was generated on 03/18/2010

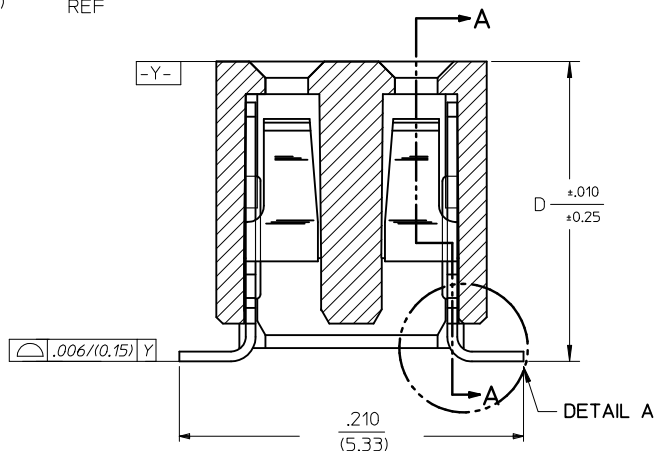
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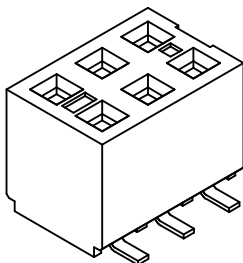
RECOMMENDED PCB PAD LAYOUT



SECTION A-A



SECTION B-B

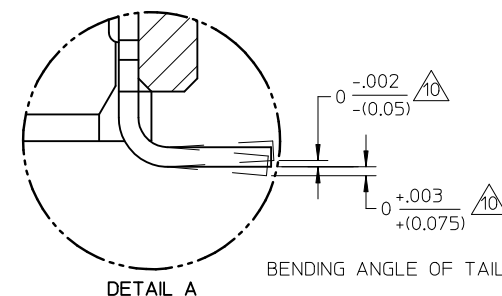


NOTES:

1. HOUSING MATERIAL:
LCP, GLASS FILLED, UL 94V-0
COLOUR BLACK.
2. TERMINAL MATERIAL:
PHOSPHOR BRONZE
3. SEE APPROPRIATE SHEET FOR CIRCUIT SIZE,
PART NUMBERS AND OVERALL DIMENSIONS.
4. FOR ILLUSTRATION, 6 CKT ASSY SHOWN.
5. REFER TO PRODUCT SPEC PS-79107.
6. TUBE PACKAGING PER PK-70873-0217 OR
TAPE PACKAGING PER PK-70873-0259
7. SEE SHT 3 FOR PEG OPTION ASSEMBLIES.
8. CKT LOCATIONS ARE NUMBERED FROM LEFT TO
RIGHT WHEN VIEWING ASSY FROM TOP WITH
THE GATE RECESS ON THE RIGHT AS SHOWN.
9. SEE SHT 5 & 6 FOR VOIDED CIRCUIT PART NUMBERS.
10. MEASUREMENT IS TAKEN BETWEEN THE TANGENT OF
THE TOE TO TIP OF THE TERMINAL.

PLATING OPTION:

4. 30u" (0.75um) MIN. GOLD PLATE IN SELECTED AREA AND
75u" (1.88um) MIN. TIN PLATE IN SELECTED AREA OVER
50u" (1.25um) MIN. NICKEL OVERALL.
5. 15u" (0.38um) MIN. GOLD PLATE IN SELECTED AREA AND
75u" (1.88um) MIN. TIN PLATE IN SELECTED AREA OVER
50u" (1.25um) MIN. NICKEL OVERALL.
6. 5u" (0.13um) MIN. GOLD PLATE IN SELECTED AREA AND
75u" (1.88um) MIN. TIN PLATE IN SELECTED AREA OVER
50u" (1.25um) MIN. NICKEL OVERALL.



DETAIL A

REVISED		QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE		DESIGN UNITS		THIRD ANGLE PROJECTION	
EC NO: S2010-0566		F _A =0		mm		IN/MM		NTS		INCH		⊙	
2010/01/05		F _B =0		INCH		DRAWN BY		DATE		TITLE		2MM DUAL ROW	
2010/02/03		F _P =0		4 PLACES ± --- ± ---		AAB		1989/05/15		VERTICAL RECEPTACLE, SMT		MOLEX INCORPORATED	
2010/02/19		ANGULAR ± 3 °		3 PLACES ± --- ± .010		CHECKED BY		DATE		MATERIAL NO.		DOCUMENT NO.	
2010/02/19		DRAFT WHERE APPLICABLE		2 PLACES ± 0.25 ± .015		APPROVED BY		DATE		SIZE		SHEET NO.	
2010/02/19		MUST REMAIN WITHIN DIMENSIONS		1 PLACE ± 0.38 ± ---		MLONG		2010/02/18		A3		1 OF 10	
2010/02/19		REV		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SEE TABLE		SDA-79109-****		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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ASSEMBLIES WITHOUT PEGS

VOIDED CIRCUIT OPTION

CKT. SIZE	ASSEMBLY (WITHOUT CAP IN TUBE)	VOID LOCATION(S) SEE SHEET 1 FOR CONVENTION		PLATING OPTION	DIM. "A"		DIM. "B"		DIM. "D"	
	PART NUMBER	ROW	CKT. NO.(s)		INCH	MM	INCH	MM	INCH	MM
22	79109-5011	A	2	4	.787	(20.00)	.874	(22.19)	.183	(4.65)
6	79109-5012	A	2	5	.157	(4.00)	.244	(6.19)	.183	(4.65)

CKT SIZE	ASSEMBLY (WITH CAP A IN T&R)	VOID LOCATION(S) SEE SHEET 1 FOR CONVENTION		PLATING OPTION	DIM A		DIM B		DIM D	
	PART NUMBER	ROW	CKT NO.		INCH	MM	INCH	MM	INCH	MM
50	79109-8924	A	13, 23	5	1.890	(48.00)	1.976	(50.19)	.183	(4.65)
		B	23							

NOTES:

1. TERMINALS WILL BE PRESENT IN VOIDED LOCATIONS. HOWEVER, PIN WINDOWS WILL BE CLOSED.
2. VOIDS CAN ONLY BE PRESENT IN ONE ROW OF A CONNECTOR.

REVISED EC NO: S2010-0566 2010/01/05 DRWN:SKANG 2010/02/03 CHKD:ATSEE 2010/02/19 APPR:MLONG	DESCRIPTION REV	QUALITY SYMBOLS F_A=0 F_C=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE NTS	DESIGN UNITS INCH	THIRD ANGLE PROJECTION				
				mm	INCH	DRAWN BY AAB	DATE 1989/05/15	TITLE 2MM DUAL ROW VERTICAL RECEPTACLE, SMT					
			4 PLACES	± ---	± ---	CHECKED BY MJM	DATE 1989/05/15						
			3 PLACES	± ---	± .010	APPROVED BY MLONG		DATE 2010/02/18	MOLEX MOLEX INCORPORATED				
			2 PLACES	± 0.25	± .015								
			1 PLACE	± 0.38	± ---	MATERIAL NO. SEE TABLE							
			ANGULAR ± 3 °										
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			DOCUMENT NO. SDA-79109-****		SHEET NO. 3 OF 10					
						SIZE A3							
						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

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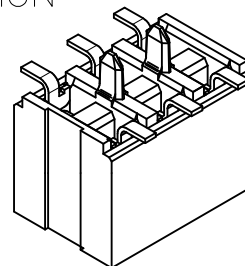
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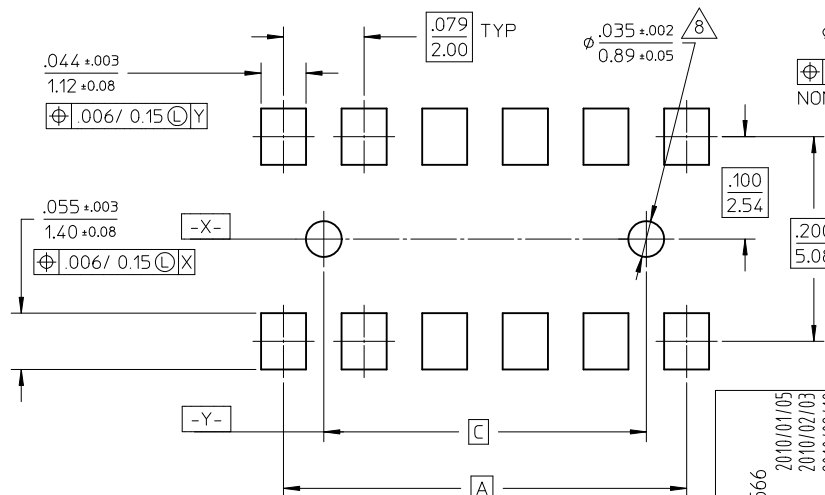
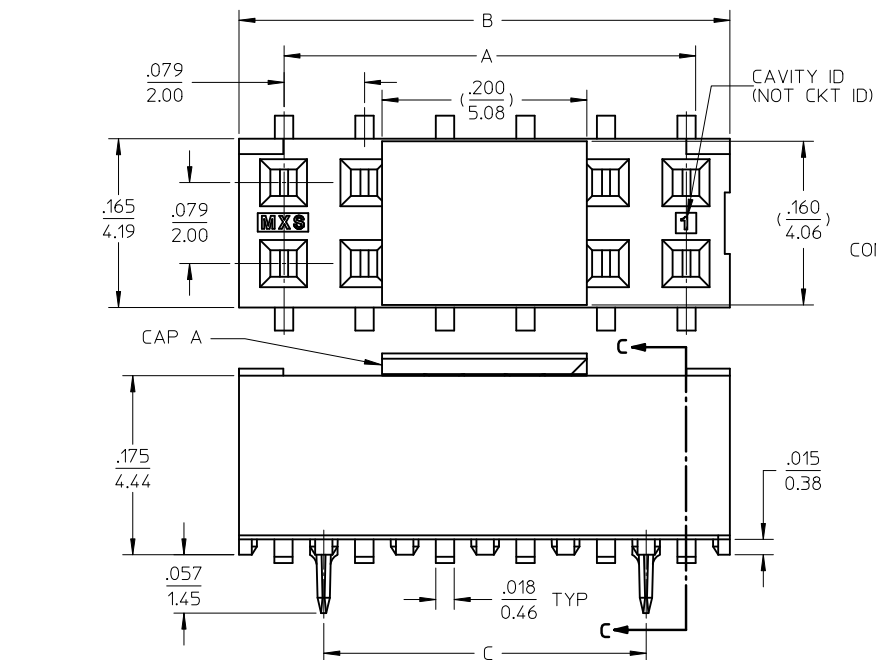
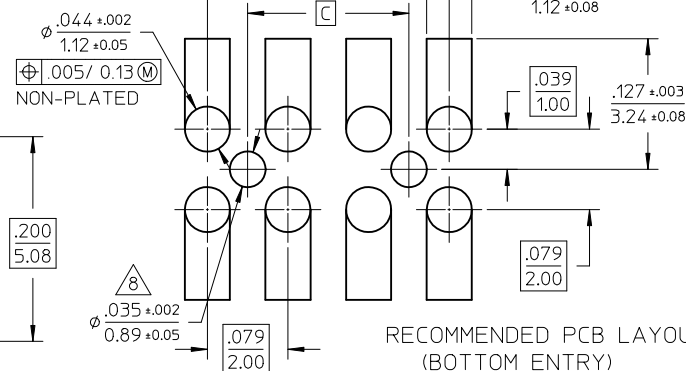
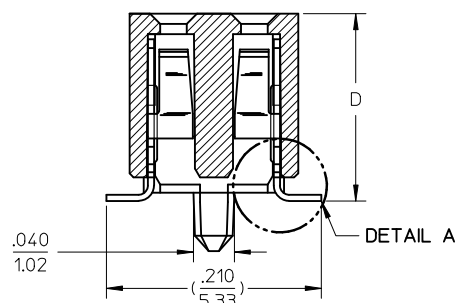
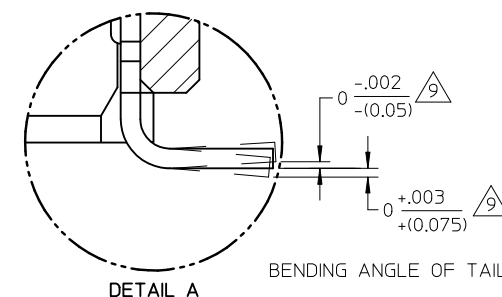


(4) 30uIn (0.75um) MIN. GOLD PLATE IN SELECTED AREA AND
75uIn (1.88um) MIN. TIN IN SELECTED
AREA OVER 50uIn (1.25um) MIN. NICKEL OVER-ALL.

(5) 15uIn (0.38um) MIN. GOLD PLATE IN SELECTED AREA AND
75uIn (1.88um) MIN. TIN IN SELECTED
AREA OVER 50uIn (1.25um) MIN. NICKEL OVER-ALL.

(6) 5uIn (0.13um) MIN. GOLD PLATE IN SELECTED AREA AND
75uIn (1.88um) MIN. TIN IN SELECTED
AREA OVER 50uIn (1.25um) MIN. NICKEL OVER-ALL.

- 1 - HOUSING MATERIAL: GLASS FILLED HIGH TEMP. THERMOPLASTIC. COLOR: BLACK.
- 2 - TERMINAL MATERIAL: PHOSPHOR BRONZE
- 3 - SEE APPROPRIATE SHEET FOR CIRCUIT SIZE, PART NUMBERS AND OVER-ALL DIMENSIONS.
- 4 - FOR ILLUSTRATION, 6&12 CIRCUIT ASSEMBLY SHOWN.
- 5 - REFER TO PRODUCT SPECIFICATION PS-79107.
- 6 - TUBE PACKAGING PER PK-70873-0217 OR TAPE PACKAGING PER PK-70873-0259.
- 7 - SEE PSX-79107 FOR SUGGESTED BOTTOM ENTRY PIN LENGTHS.
- 8 - .035 DIA. FOR PRESS FIT ONLY. USE .039±.002 FOR ALIGNMENT PURPOSES ON PICK AND PLACE.
- 9 - MEASUREMENT IS TAKEN BETWEEN THE TANGENT OF THE TOE TO TIP OF THE TERMINAL.



RECOMMENDED PCB LAYOUT

REVISED	EC NO: S2010-0566	2010/01/05	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
						IN/MM		NTS	INCH			
	DWGS:SKANG	2010/02/03				DRAWN BY	DATE	TITLE 2MM DUAL ROW VERTICAL RECEPTACLE, SMT				
	CHK'D:ATSEE	2010/02/19										
	APPR:MLONG					CHECKED BY	DATE					
M6	REV			▽=0	4 PLACES ± --- ± ---	mm	INCH	APPROVED BY				DATE
								DATE				
								DATE				
								DATE				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
						SEE TABLE		SDA-79109-****		4 OF 10		
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												

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PEG OPTION

CKT. SIZE	DIM. "A"		DIM. "B"		DIM. "C"		DIM. "D"		PLATING OPTION 5		PLATING OPTION 4		PLATING OPTION 6	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	ITEM NO. TUBE PACKED (WITHOUT CAP)	ITEM NO. TAPE PACKED (WITH CAP A)	ITEM NO. TUBE PACKED (WITHOUT CAP)	ITEM NO. TAPE PACKED (WITH CAP A)	ITEM NO. TUBE PACKED (WITHOUT CAP)	ITEM NO. TAPE PACKED (WITH CAP A)
04	.079	(2.00)	.165	(4.19)	-	-	.183	(4.65)	79109-1201	79109-8601	79109-1251	79109-8651	X 79109-1301	-
06	.157	(4.00)	.244	(6.19)	.079	(2.00)	.183	(4.65)	79109-1202	79109-8602	79109-1252	79109-8652	X 79109-1302	-
08	.236	(6.00)	.322	(8.19)	.157	(4.00)	.183	(4.65)	79109-1203	79109-8603	79109-1253	79109-8653	X 79109-1303	-
10	.315	(8.00)	.401	(10.19)	.236	(6.00)	.183	(4.65)	79109-1204	79109-8604	79109-1254	79109-8654	X 79109-1304	-
12	.394	(10.00)	.480	(12.19)	.315	(8.00)	.183	(4.65)	79109-1205	79109-8605	79109-1255	79109-8655	X 79109-1305	-
14	.472	(12.00)	.559	(14.19)	.394	(10.00)	.183	(4.65)	79109-1206	79109-8606	79109-1256	79109-8656	X 79109-1306	-
16	.551	(14.00)	.637	(16.19)	.472	(12.00)	.183	(4.65)	79109-1207	79109-8607	79109-1257	79109-8657	X 79109-1307	-
18	.630	(16.00)	.716	(18.19)	.551	(14.00)	.183	(4.65)	79109-1208	79109-8608	79109-1258	79109-8658	X 79109-1308	-
20	.709	(18.00)	.795	(20.19)	.630	(16.00)	.183	(4.65)	79109-1209	79109-8609	79109-1259	79109-8659	X 79109-1309	-
22	.787	(20.00)	.874	(22.19)	.709	(18.00)	.183	(4.65)	79109-1210	79109-8610	79109-1260	79109-8660	X 79109-1310	-
24	.866	(22.00)	.952	(24.19)	.787	(20.00)	.183	(4.65)	79109-1211	79109-8611	79109-1261	79109-8661	X 79109-1311	-
26	.945	(24.00)	1.031	(26.19)	.866	(22.00)	.183	(4.65)	79109-1212	79109-8612	79109-1262	79109-8662	X 79109-1312	-
28	1.024	(26.00)	1.110	(28.19)	.945	(24.00)	.183	(4.65)	79109-1213	79109-8613	79109-1263	79109-8663	X 79109-1313	-
30	1.102	(28.00)	1.188	(30.19)	1.024	(26.00)	.183	(4.65)	79109-1214	79109-8614	79109-1264	79109-8664	X 79109-1314	-
32	1.181	(30.00)	1.267	(32.19)	1.102	(28.00)	.183	(4.65)	79109-1215	79109-8615	79109-1265	79109-8665	X 79109-1315	-
34	1.260	(32.00)	1.346	(34.19)	1.181	(30.00)	.183	(4.65)	79109-1216	79109-8616	79109-1266	79109-8666	X 79109-1316	-
36	1.338	(34.00)	1.425	(36.19)	1.260	(32.00)	.183	(4.65)	79109-1217	79109-8617	79109-1267	79109-8667	X 79109-1317	-
38	1.417	(36.00)	1.504	(38.19)	1.338	(34.00)	.183	(4.65)	79109-1218	79109-8618	79109-1268	79109-8668	X 79109-1318	-
40	1.496	(38.00)	1.582	(40.19)	1.417	(36.00)	.183	(4.65)	79109-1219	79109-8619	79109-1269	79109-8669	X 79109-1319	-
42	1.575	(40.00)	1.661	(42.19)	1.496	(38.00)	.183	(4.65)	79109-1220	79109-8620	79109-1270	79109-8670	X 79109-1320	-
44	1.654	(42.00)	1.740	(44.19)	1.575	(40.00)	.183	(4.65)	79109-1221	79109-8621	79109-1271	79109-8671	X 79109-1321	-
46	1.732	(44.00)	1.818	(46.19)	1.654	(42.00)	.183	(4.65)	79109-1222	79109-8622	79109-1272	79109-8672	X 79109-1322	-
48	1.811	(46.00)	1.897	(48.19)	1.732	(44.00)	.183	(4.65)	79109-1223	79109-8623	79109-1273	79109-8673	X 79109-1323	-
50	1.890	(48.00)	1.976	(50.19)	1.811	(46.00)	.183	(4.65)	79109-1224	79109-8624	79109-1274	79109-8674	X 79109-1324	-

X INDICATES TOOLING NOT AVAILABLE

REVISED EC NO: S2010-0566 2010/01/05 DRWN:SKANG CHKD:ATSEE 2010/02/03 APPR:MLONG 2010/02/19	QUALITY SYMBOLS =0 =0 =0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE NTS	DESIGN UNITS INCH	THIRD ANGLE PROJECTION						
				mm	INCH	DRAWN BY AAB	DATE 1989/05/15	TITLE 2MM DUAL ROW VERTICAL RECEPTACLE, SMT							
			4 PLACES	± ---	± ---	CHECKED BY MJM	DATE 1989/05/15								
			3 PLACES	± ---	± .010	APPROVED BY MLONG					DATE 2010/02/18				
			2 PLACES	± 0.25	± .015										
			1 PLACE	± 0.38	± ---	MOLEX MOLEX INCORPORATED									
ANGULAR ± 3 °															
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO. SEE TABLE		DOCUMENT NO. SDA-79109-****				SHEET NO. 5 OF 10						
M6	REV		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												

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D

C

C

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PEG OPTION

SPECIAL PACKAGING (TAPE PACKED WITHOUT CAP)

CKT. SIZE	DIM. "A"		DIM. "B"		DIM. "C"		DIM. "D"		ITEM NO.	PLATING OPTION SEE SHEET 1
	INCH	MM	INCH	MM	INCH	MM	INCH	MM		
50	1.890	(48.00)	1.976	(50.19)	1.811	(46.00)	.183	(4.65)	79109-9103	5

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F

E

E

D

D

C

C

B

B

A

A

ASSEMBLIES WITH PEGS
VOIDED CIRCUIT OPTION

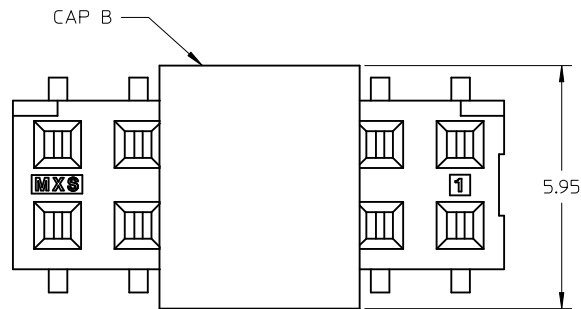
CKT. SIZE	ASSEMBLY (WITHOUT CAP IN TUBE)	VOID LOCATION(S) SEE SHEET 1 FOR CONVENTION		PLATING OPTION	DIM. "A"		DIM. "B"		DIM. "C"		DIM. "D"	
	ITEM NO.	ROW	CKT. NO.(s)		INCH	MM	INCH	MM	INCH	MM	INCH	MM
48	79109-6011	ROW A	1, 24	5	1.811	(46.00)	1.897	(48.19)	1.732	(44.00)	.183	(4.65)
44	79109-6012	ROW B	10	5	1.654	(42.00)	1.740	(44.19)	1.575	(42.00)	.183	(4.65)

NOTES:
1. TERMINALS WILL BE PRESENT IN VOIDED LOCATIONS. HOWEVER, PIN WINDOWS WILL BE CLOSED.
2. VOIDS CAN ONLY BE PRESENT IN ONE ROW OF A CONNECTOR.

SPECIAL - ASSEMBLIES WITH CAP B (TAPE PACKED WITH CAP)

PEG OPTION

CKT. SIZE	DIM. "A"		DIM. "B"		DIM. "C"		DIM. "D"		DIM. "E"		ITEM NO.	PLATING OPTION SEE SHEET 1
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM		
8	.236	(6.00)	.322	(8.19)	.157	(4.00)	.183	(4.65)	.065	(1.65)	79109-9108	4
18	.630	(16.00)	.716	(18.19)	.551	(14.00)	.183	(4.65)	.262	(6.65)	79109-9118	4



SECTION C-C



REVISED EC NO: S2010-0566 DRWN:SKANG CHKD:ATSEE APPR:MLONG M6	DESCRIPTION	QUALITY SYMBOLS F_A=0 F_C=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE NTS	DESIGN UNITS INCH	THIRD ANGLE PROJECTION				
				mm	INCH	DRAWN BY AAB	DATE 1989/05/15	TITLE 2MM DUAL ROW VERTICAL RECEPTACLE, SMT					
			4 PLACES	± ---	± ---	CHECKED BY MJM	DATE 1989/05/15						
			3 PLACES	± ---	± .010	APPROVED BY MLONG		DATE 2010/02/18		MOLEX INCORPORATED			
			2 PLACES	± 0.25	± .015								
			1 PLACE	± 0.38	± ---	MATERIAL NO. SEE TABLE				DOCUMENT NO. SDA-79109-****			
	ANGULAR ± 3 °												
REV			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					