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ELECTRONICS

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Jameco Part Number 521105

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Sizes 4 to 80 circuits
- High profile: .220" high
- Stackable end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

### Reference Information

Product Specification: PS-70216

Packaging: Tube

UL File No.: E29179 (H)

CSA File No.: LR19980A

Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp and IDT Housings

Designed In: Inches

### Electrical

Voltage: 250V

Current: 3.0A

Contact Resistance: 15mΩ max.

Dielectric Withstanding Voltage: 1500V

Insulation Resistance: 1000 MΩ min.

### Mechanical

Pin Retention to Header: 17.79N (4 lb)

Durability: 25 cycles Tin/Lead and 50 cycles Gold

### Physical

Housing: Glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

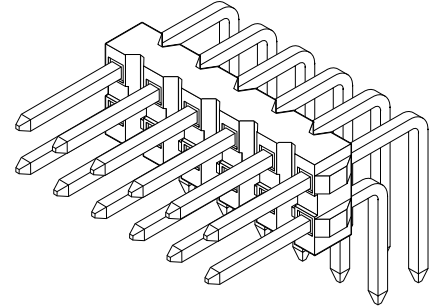
Plating: See Table

Operating Temperature: -40 to +105°C

# molex® 2.54mm (.100") Pitch C-Grid® Breakaway Header

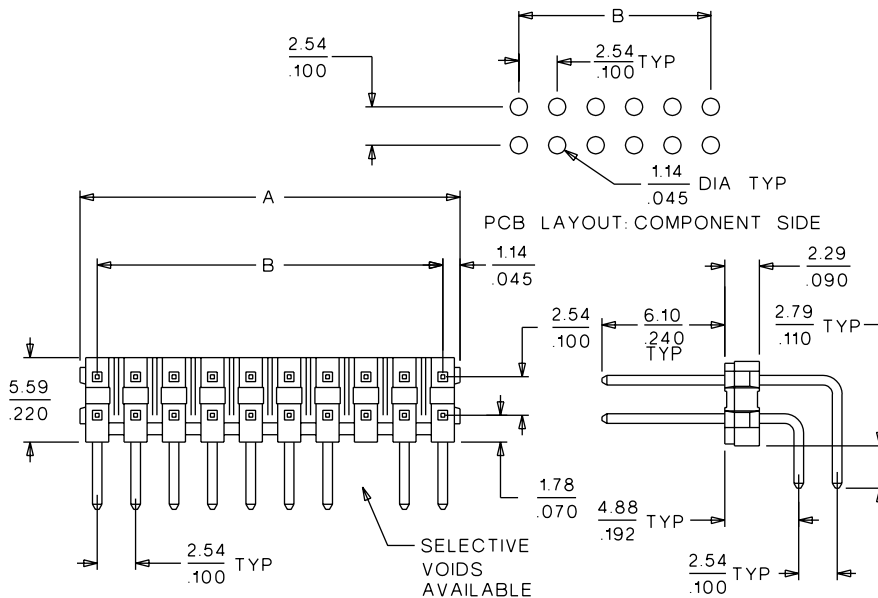
## 70216

## High Profile, Dual Row Right Angle



## CATALOG DRAWING (FOR REFERENCE ONLY)

**Not For Use With Molex C-Grid III™ Components**



## ORDERING INFORMATION AND DIMENSIONS

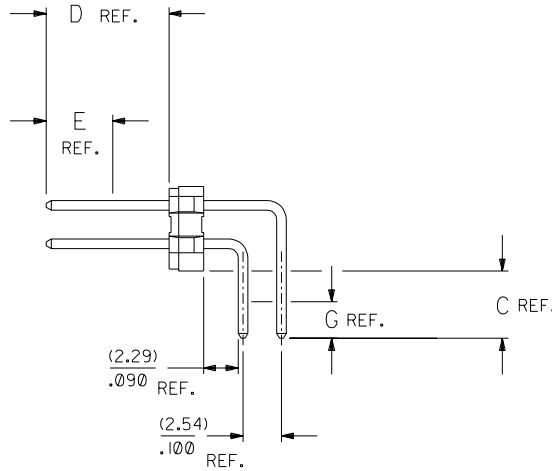
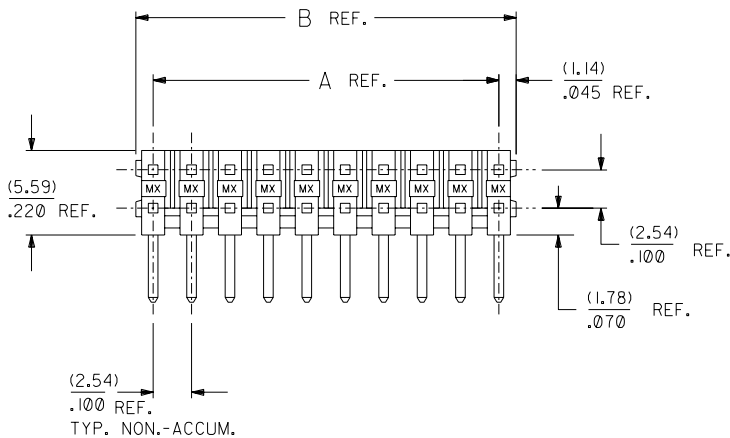
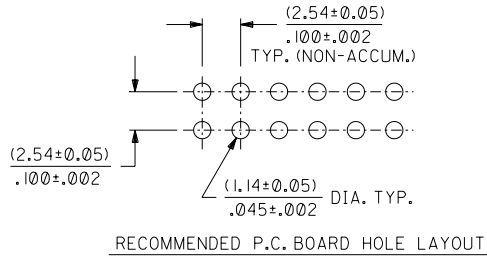
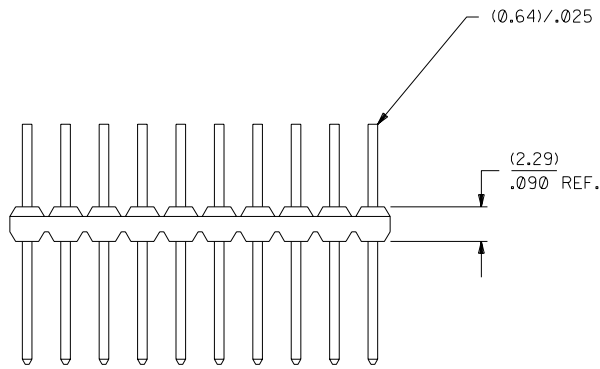
Circuits	Dimension	
	A	B
4	4.83 (.190)	2.54 (.100)
6	7.37 (.290)	5.08 (.200)
8	9.91 (.390)	7.62 (.300)
10	12.45 (.490)	10.16 (.400)
12	14.99 (.590)	12.70 (.500)
14	17.53 (.690)	15.24 (.600)
16	20.07 (.790)	17.78 (.700)
18	22.61 (.890)	20.32 (.800)
20	25.15 (.990)	22.86 (.900)
22	27.69 (1.090)	25.40 (1.000)
24	30.23 (1.190)	27.94 (1.100)
26	32.77 (1.290)	30.48 (1.200)
28	35.31 (1.390)	33.02 (1.300)

Circuits	Dimension	
	A	B
30	37.85 (1.490)	35.56 (1.400)
32	40.39 (1.590)	38.10 (1.500)
34	42.93 (1.690)	40.64 (1.600)
36	45.47 (1.790)	43.18 (1.700)
38	48.01 (1.890)	45.72 (1.800)
40	50.55 (1.990)	48.26 (1.900)
42	53.09 (2.090)	50.80 (2.000)
44	55.63 (2.190)	53.34 (2.100)
46	58.17 (2.290)	55.88 (2.200)
48	60.71 (2.390)	58.42 (2.300)
50	63.25 (2.490)	60.96 (2.400)
52	65.79 (2.590)	63.50 (2.500)
54	68.33 (2.690)	66.04 (2.600)

Circuits	Dimension	
	A	B
56	70.87 (2.790)	68.58 (2.700)
58	73.41 (2.890)	71.12 (2.800)
60	75.95 (2.990)	73.66 (2.900)
62	78.49 (3.090)	76.20 (3.000)
64	81.03 (3.190)	78.74 (3.100)
66	83.57 (3.290)	81.28 (3.200)
68	86.11 (3.390)	83.82 (3.300)
70	88.65 (3.490)	86.36 (3.400)
72	91.19 (3.590)	88.90 (3.500)
74	93.73 (3.690)	91.44 (3.600)
76	96.27 (3.790)	93.98 (3.700)
78	98.81 (3.890)	96.52 (3.800)
80	101.35 (3.990)	99.06 (3.900)

Plating Option	Order No.
15μ" min. select Gold	• 10-89-4XX2
30μ" min. select Gold	• 10-89-4XX6
150μ" Tin/Lead, Nickel overall	• 10-88-3XX1
Replace XX with no. of circuits, 04-80 (even only)	

• US Standard Product, available through Molex franchised distributors (80 circuit only)



CKT. SIZE	DIM. A		DIM. B	
	(MM)	INCH	(MM)	INCH
04	(2.54)	.100	(4.83)	.190
06	(5.08)	.200	(7.37)	.290
08	(7.62)	.300	(9.91)	.390
10	(10.16)	.400	(12.45)	.490
12	(12.70)	.500	(14.99)	.590
14	(15.24)	.600	(17.53)	.690
16	(17.78)	.700	(20.07)	.790
18	(20.32)	.800	(22.61)	.890
20	(22.86)	.900	(25.15)	.990
22	(25.40)	1.000	(27.69)	1.090
24	(27.94)	1.100	(30.23)	1.190
26	(30.48)	1.200	(32.77)	1.290
28	(33.02)	1.300	(35.31)	1.390
30	(35.56)	1.400	(37.85)	1.490
32	(38.10)	1.500	(40.39)	1.590
34	(40.64)	1.600	(42.93)	1.690
36	(43.18)	1.700	(45.47)	1.790
38	(45.72)	1.800	(48.01)	1.890
40	(48.26)	1.900	(50.55)	1.990
42	(50.80)	2.000	(53.09)	2.090
44	(53.34)	2.100	(55.63)	2.190
46	(55.88)	2.200	(58.17)	2.290
48	(58.42)	2.300	(60.71)	2.390
50	(60.96)	2.400	(63.25)	2.490
52	(63.50)	2.500	(65.79)	2.590
54	(66.04)	2.600	(68.33)	2.690
56	(68.58)	2.700	(70.87)	2.790
58	(71.12)	2.800	(73.41)	2.890
60	(73.66)	2.900	(75.95)	2.990
62	(76.20)	3.000	(78.49)	3.090
64	(78.74)	3.100	(81.03)	3.190
66	(81.28)	3.200	(83.57)	3.290
68	(83.82)	3.300	(86.11)	3.390
70	(86.36)	3.400	(88.65)	3.490
72	(88.90)	3.500	(91.19)	3.590
74	(91.44)	3.600	(93.73)	3.690
76	(93.98)	3.700	(96.27)	3.790
78	(96.52)	3.800	(98.81)	3.890
80	(99.06)	3.900	(101.35)	3.990

**GENERAL NOTES:**

- PIN PUSHOUT FORCE: 4 LBS. MINIMUM
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE WAFER IS SHOWN.
- PINS MUST MEET SOLDERABILITY SPEC. NO. 152
- WAFER TO BE FLAT WITHIN (0.03 MM/CM) .003 IN./IN.
- FOR ASSEMBLIES WITH VOIDED PINS; SEE DRAWING NUMBER A-70216-5001-9999.
- THIS PRODUCT CONFORMS TO PRODUCT SPEC PS-70216.
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES)

CIRCUIT SIZE	PACKAGING DRAWING
4 THROUGH 8	PK-70873-0353
10 AND OVER	PK-70873-0075

**FINISH:**

- TIN .000150 MINIMUM TIN OVER .000050 MINIMUM NICKEL OVERALL.
- 15 GOLD .000015 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL OVERALL.
- 30 GOLD .000030 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL OVERALL.
- 50 GOLD .000050 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL OVERALL.

\*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.

**MATERIAL:**

PINS - PHOS. BRONZE  
WAFER - G.F. POLYESTER, 94V-0; COLOR: BLACK

DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		▽ = 0	▼ = 0	REVISE ONLY ON CAD SYSTEM												
<table border="1"> <thead> <tr> <th>PLACES</th> <th>INCH</th> <th>METRIC</th> </tr> </thead> <tbody> <tr> <td>3 PLACES</td> <td>± .005</td> <td>---</td> </tr> <tr> <td>2 PLACES</td> <td>± .01</td> <td>± 0.13</td> </tr> <tr> <td>1 PLACE</td> <td>---</td> <td>± 0.25</td> </tr> </tbody> </table>		PLACES	INCH	METRIC	3 PLACES	± .005	---	2 PLACES	± .01	± 0.13	1 PLACE	---	± 0.25	TITLE <b>SALES ASS'Y-RIGHT ANGLE WAFER W/BREAK-OFF OPTION / .100 GRID DUAL ROW W/.025 SQUARE PINS</b>		
PLACES	INCH	METRIC														
3 PLACES	± .005	---														
2 PLACES	± .01	± 0.13														
1 PLACE	---	± 0.25														
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MOLEX INCORPORATED SHEET NO. DATE LISLE, ILL. 60532 U.S.A. 1 OF 5 05/18/94														
DRWG. BY: RCB	CHK'D. BY:	FILE NAME: 570216X1	DRWG. NO.: SDA-70216-0079-5000	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.												
APPR'D. BY:	SCALE: 4 : 1	DA I C														

REV.	DESCRIPTION
E	LEAD FREE UCP2004-1770 RLWHITE 04/04/26
D3	REVISE PKGNG ECN UDT2000-0949 SCHAFFER 00/4/76
D2	ADDED PART PER ECN # UT1190 SCARTH 97/04/08
D1	ADDED PART PER ECN # U70668 SCARTH 96/12/13
D	REVISED PER ECN # UT0414 SCARTH 96/11/04
C1	ADDED EDP NO'S PER ECN # U60256 95/08/23 CAC
C	VOIDED EDP NO'S PER ECN # U60097 95/07/27 CAC
B	REVISED INFORM PER ECN NO U50982 03-31-95 BJS
A	RELEASED PER ECN NO. U40640 05-18-94 RCB

J	13	12	11		10	9	8	7	6	70216		4	3	2	1	
	ENGINEERING PART NUMBER A-70216-	RELEASE FOR MANUFACTURE	EXPOSED PIN DIM.						PLATING TYPE - SEE SHEET 1	CONNECTOR END PLATING			P.C. BOARD END PLATING			PACKAGE PER
			C REF.	D ± (0.25) / .010						TYPE	E MEAS.		TYPE	G MEAS.		
I	-0079/-0117	RFM	(2.79) .110	(6.10) .240					TIN	TIN	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
I	-0118/-0156	RFM	(2.79) .110	(8.13) .320					TIN	TIN	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0235/-0273	RFM	(2.79) .110	(6.10) .240					15 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0274/-0312	RFM	(2.79) .110	(8.13) .320					15 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0313/-0351	RFM	(4.19) .165	(6.10) .240					15 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
G	-0391/-0429	RFM	(2.79) .110	(6.10) .240					30 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
G	-0430/-0468	RFM	(2.79) .110	(8.13) .320					30 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
F	-0469/-0507	RFM	(4.45) .175	(6.10) .240					30 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
F	-0547/-0585	RFM	(2.79) .110	(6.10) .240					50 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
E	-0664/-0702	RFM	(2.79) .110	(9.53) .375					15 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
E	-0703/-0741														NOTE #7 ON SHEET 1	
D	-0742/-0780														NOTE #7 ON SHEET 1	
CHARTED DIMENSIONS FOR ASSEMBLIES LISTED AFTER A-70216-0780 WILL CONTINUE ON SHEET 6.																
C																C
B																B
A																A
										E	SEE SHEET 1	DIMENSIONS SHOWN (METRIC) INCH		<input checked="" type="checkbox"/> = 0 <input type="checkbox"/> = 0    REVISE ONLY ON CAD SYSTEM		
										DI	SEE SHEET 1	UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		TITLE		
										D	SEE SHEET 1	INCH    METRIC		SALES ASS'Y-RIGHT ANGLE WAFER W/BREAK-OFF OPTION .100 GRID DUAL ROW W/.025 SQUARE PINS		
										CI	SEE SHEET 1	3 PLACE ± .005	---	FROM MOLEX INCORPORATED SHEET NO. DATE		
										C	SEE SHEET 1	2 PLACE ± .01	± 0.13	L15LE,ILL. 60532 U.S.A. 2 05/18/94		
										B	SEE SHEET 1	1 PLACE ---	± 0.25	PART NO. DRWG. NO.		
										A	SEE SHEET 1	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART SDA-70216-0079-5000		
										LTR.	REVISIONS	LTR.	REVISIONS	FILE NAME 570216X2 DIV. SIZE		
														THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. DA C		

J	NO. OF CKTS	FINISH CODE: TIN DIMENSIONS: C-(2.79) / .110 D-(6.10) / .240		FINISH CODE: TIN DIMENSIONS: C-(2.79) / .110 D-(8.13) / .320		FINISH CODE: TIN DIMENSIONS: C-(4.45) / .175 D-(6.10) / .240		FINISH CODE: TIN DIMENSIONS: C-(2.79) / .110 D-(8.13) / .320		FINISH CODE: 15 GOLD DIMENSIONS: C-(2.79) / .110 D-(6.10) / .240		FINISH CODE: 15 GOLD DIMENSIONS: C-(2.79) / .110 D-(8.13) / .320	
		EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER
		04	10-88-3041	A-70216-0079	10-88-3042	A-70216-0118					10-89-4042	A-70216-0235	10-89-4043
06	10-88-3061	A-70216-0080	10-88-3062	A-70216-0119					10-89-4062	A-70216-0236	10-89-4063	A-70216-0275	
08	10-88-3081	A-70216-0081	10-88-3082	A-70216-0120					10-89-4082	A-70216-0237	10-89-4083	A-70216-0276	
10	10-88-3101	A-70216-0082	10-88-3102	A-70216-0121					10-89-4102	A-70216-0238	10-89-4103	A-70216-0277	
12	10-88-3121	A-70216-0083	10-88-3122	A-70216-0122					10-89-4122	A-70216-0239	10-89-4123	A-70216-0278	
14	10-88-3141	A-70216-0084	10-88-3142	A-70216-0123					10-89-4142	A-70216-0240	10-89-4143	A-70216-0279	
16	10-88-3161	A-70216-0085	10-88-3162	A-70216-0124					10-89-4162	A-70216-0241	10-89-4163	A-70216-0280	
18	10-88-3181	A-70216-0086	10-88-3182	A-70216-0125					10-89-4182	A-70216-0242	10-89-4183	A-70216-0281	
20	10-88-3201	A-70216-0087	10-88-3202	A-70216-0126					10-89-4202	A-70216-0243	10-89-4203	A-70216-0282	
22	10-88-3221	A-70216-0088	10-88-3222	A-70216-0127					10-89-4222	A-70216-0244	10-89-4223	A-70216-0283	
24	10-88-3241	A-70216-0089	10-88-3242	A-70216-0128					10-89-4242	A-70216-0245	10-89-4243	A-70216-0284	
26	10-88-3261	A-70216-0090	10-88-3262	A-70216-0129					10-89-4262	A-70216-0246	10-89-4263	A-70216-0285	
28	10-88-3281	A-70216-0091	10-88-3282	A-70216-0130					10-89-4282	A-70216-0247	10-89-4283	A-70216-0286	
30	10-88-3301	A-70216-0092	10-88-3302	A-70216-0131					10-89-4302	A-70216-0248	10-89-4303	A-70216-0287	
32	10-88-3321	A-70216-0093	10-88-3322	A-70216-0132					10-89-4322	A-70216-0249	10-89-4323	A-70216-0288	
34	10-88-3341	A-70216-0094	10-88-3342	A-70216-0133					10-89-4342	A-70216-0250	10-89-4343	A-70216-0289	
36	10-88-3361	A-70216-0095	10-88-3362	A-70216-0134					10-89-4362	A-70216-0251	10-89-4363	A-70216-0290	
38	10-88-3381	A-70216-0096	10-88-3382	A-70216-0135					10-89-4382	A-70216-0252	10-89-4383	A-70216-0291	
40	10-88-3401	A-70216-0097	10-88-3402	A-70216-0136					10-89-4402	A-70216-0253	10-89-4403	A-70216-0292	
42	10-88-3421	A-70216-0098	10-88-3422	A-70216-0137					10-89-4422	A-70216-0254	10-89-4423	A-70216-0293	
44	10-88-3441	A-70216-0099	10-88-3442	A-70216-0138					10-89-4442	A-70216-0255	10-89-4443	A-70216-0294	
46	10-88-3461	A-70216-0100	10-88-3462	A-70216-0139					10-89-4462	A-70216-0256	10-89-4463	A-70216-0295	
48	10-88-3481	A-70216-0101	10-88-3482	A-70216-0140					10-89-4482	A-70216-0257	10-89-4483	A-70216-0296	
50	10-88-3501	A-70216-0102	10-88-3502	A-70216-0141					10-89-4502	A-70216-0258	10-89-4503	A-70216-0297	
52	10-88-3521	A-70216-0103	10-88-3522	A-70216-0142					10-89-4522	A-70216-0259	10-89-4523	A-70216-0298	
54	10-88-3541	A-70216-0104	10-88-3542	A-70216-0143					10-89-4542	A-70216-0260	10-89-4543	A-70216-0299	
56	10-88-3561	A-70216-0105	10-88-3562	A-70216-0144					10-89-4562	A-70216-0261	10-89-4563	A-70216-0300	
58	10-88-3581	A-70216-0106	10-88-3582	A-70216-0145					10-89-4582	A-70216-0262	10-89-4583	A-70216-0301	
60	10-88-3601	A-70216-0107	10-88-3602	A-70216-0146					10-89-4602	A-70216-0263	10-89-4603	A-70216-0302	
62	10-88-3621	A-70216-0108	10-88-3622	A-70216-0147					10-89-4622	A-70216-0264	10-89-4623	A-70216-0303	
64	10-88-3641	A-70216-0109	10-88-3642	A-70216-0148					10-89-4642	A-70216-0265	10-89-4643	A-70216-0304	
66	10-88-3661	A-70216-0110	10-88-3662	A-70216-0149					10-89-4662	A-70216-0266	10-89-4663	A-70216-0305	
68	10-88-3681	A-70216-0111	10-88-3682	A-70216-0150					10-89-4682	A-70216-0267	10-89-4683	A-70216-0306	
70	10-88-3701	A-70216-0112	10-88-3702	A-70216-0151					10-89-4702	A-70216-0268	10-89-4703	A-70216-0307	
72	10-88-3721	A-70216-0113	10-88-3722	A-70216-0152					10-89-4722	A-70216-0269	10-89-4723	A-70216-0308	
74	10-88-3741	A-70216-0114	10-88-3742	A-70216-0153					10-89-4742	A-70216-0270	10-89-4743	A-70216-0309	
76	10-88-3761	A-70216-0115	10-88-3762	A-70216-0154					10-89-4762	A-70216-0271	10-89-4763	A-70216-0310	
78	10-88-3781	A-70216-0116	10-88-3782	A-70216-0155					10-89-4782	A-70216-0272	10-89-4783	A-70216-0311	
80	10-88-3801	A-70216-0117	10-88-3802	A-70216-0156					10-89-4802	A-70216-0273	10-89-4803	A-70216-0312	

C													
B													

A	E	D2	C	B	A	LTR.	REVISIONS	LTR.	REVISIONS	DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		<input checked="" type="checkbox"/> = 0 <input checked="" type="checkbox"/> = 0    REVISE ONLY ON CAD SYSTEM TITLE SALES ASS'Y-RIGHT ANGLE WAFER W/BREAK-OFF OPTION .100 GRID DUAL ROW W/.025 SQUARE PINS	
										5 PLACE ±    INCH    METRIC 2 PLACE ±    ± 1 PLACE ±    ±		MOLEX INCORPORATED    SHEET NO.    DATE LISLE, ILL.    60532    3    05/18/94	
										DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		PART NO.    DRWG. NO. SDA-70216-0079-5000	
										DRG. BY    RCB    CHK'D. BY APP'D. BY    SCALE    :		FILE NAME    DIV.    SIZE S70216X3    MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION    C	

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