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Part Number: [0010897421](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Breakaway Header, Dual Row, Vertical, High Temperature, 42 Circuits, Tin (Sn) Plating, 2.72mm (.107") PC Tail Length

Documents:

[3D Model](#) [Product Specification PS-70280 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

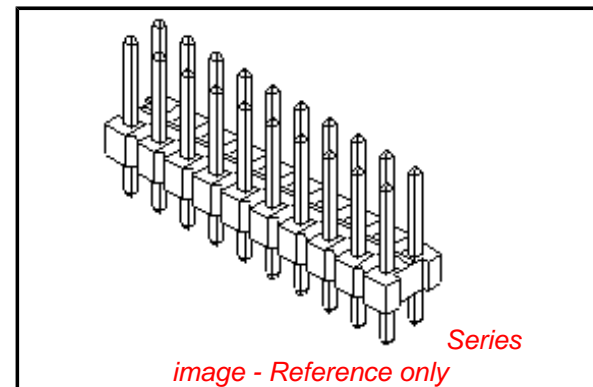
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [70280](#)
 Application Board-to-Board, Wire-to-Board
 Product Name C-Grid®

Physical

Breakaway Yes
 Circuits (Loaded) 42
 Circuits (maximum) 42
 Color - Resin Black
 Durability (mating cycles max) 25
 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 None
 Material - Metal Copper Alloy
 Material - Plating Mating Tin
 Material - Plating Termination Tin
 Number of Rows 2
 Orientation Vertical
 PC Tail Length (in) 0.110 In
 PC Tail Length (mm) 2.79 mm
 PCB Locator No
 PCB Retention None
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Bag
 Pitch - Mating Interface (in) 0.100 In
 Pitch - Mating Interface (mm) 2.54 mm
 Plating min: Mating (µin) 150
 Plating min: Mating (µm) 3.80
 Plating min: Termination (µin) 150
 Plating min: Termination (µm) 3.80
 Polarized to Mating Part No
 Polarized to PCB No
 Shrouded No
 Stackable Yes
 Temperature Range - Operating -40°C to +105°C
 Termination Interface: Style Through Hole



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
 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

[70280Series](#)

Electrical

Current - Maximum per Contact 3A
Voltage - Maximum 250V

Solder Process Data

Lead-free Process Capability SMC & Wave Capable (TH only)
Process Temperature max. C 260

Material Info

Old Part Number 70280-0021

Reference - Drawing Numbers

Product Specification PS-70280
Sales Drawing SDA-70280-0001-4000

This document was generated on 03/29/2010

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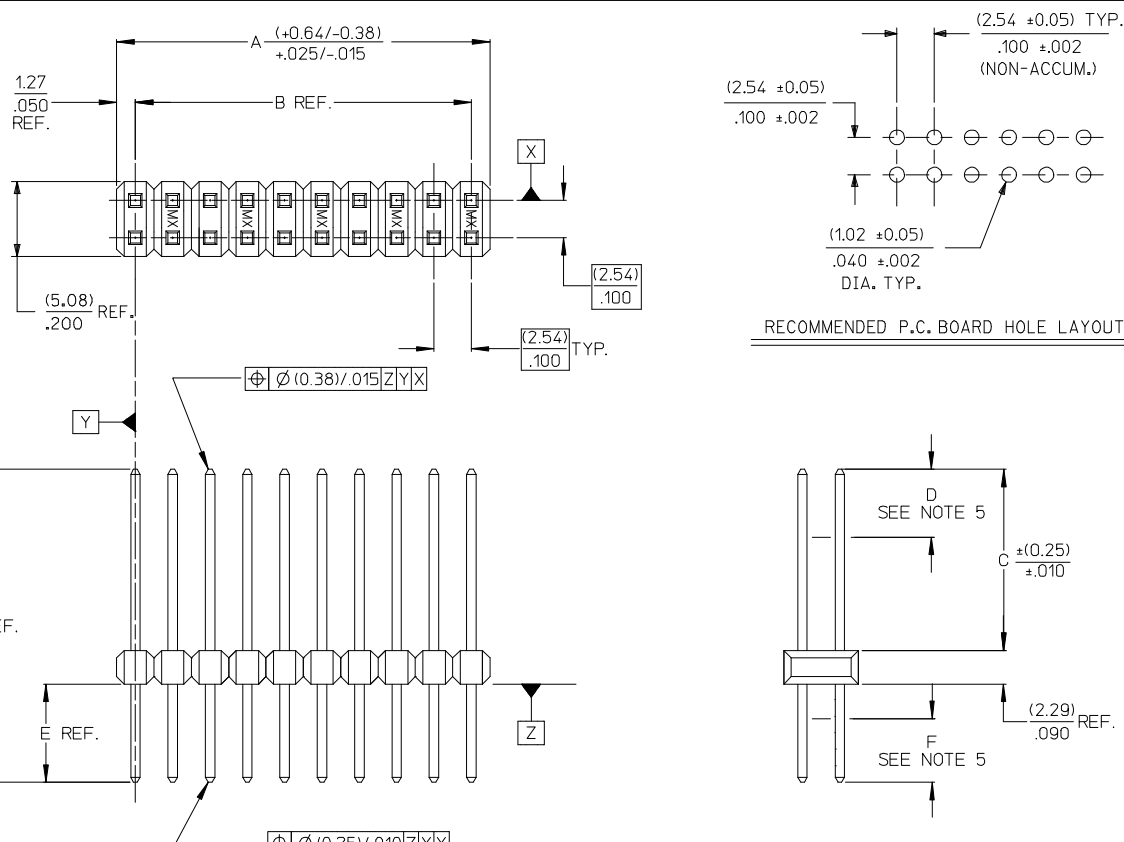
CKT. SIZE	DIM. A REF.		DIM. B REF.		
	(MM)	INCH	(MM)	INCH	
J	4	(5.08)	.200	(2.54)	.100
	6	(7.62)	.300	(5.08)	.200
	8	(10.16)	.400	(7.62)	.300
	10	(12.70)	.500	(10.16)	.400
	12	(15.24)	.600	(12.70)	.500
	14	(17.78)	.700	(15.24)	.600
I	16	(20.32)	.800	(17.78)	.700
	18	(22.86)	.900	(20.32)	.800
	20	(25.40)	1.000	(22.86)	.900
	22	(27.94)	1.100	(25.40)	1.000
	24	(30.48)	1.200	(27.94)	1.100
	26	(33.02)	1.300	(30.48)	1.200
	28	(35.56)	1.400	(33.02)	1.300
H	30	(38.10)	1.500	(35.56)	1.400
	32	(40.64)	1.600	(38.10)	1.500
	34	(43.18)	1.700	(40.64)	1.600
	36	(45.72)	1.800	(43.18)	1.700
	38	(48.26)	1.900	(45.72)	1.800
	40	(50.80)	2.000	(48.26)	1.900
G	42	(53.34)	2.100	(50.80)	2.000
	44	(55.88)	2.200	(53.34)	2.100
	46	(58.42)	2.300	(55.88)	2.200
	48	(60.96)	2.400	(58.42)	2.300
	50	(63.50)	2.500	(60.96)	2.400
	52	(66.04)	2.600	(63.50)	2.500
	54	(68.58)	2.700	(66.04)	2.600
F	56	(71.12)	2.800	(68.58)	2.700
	58	(73.66)	2.900	(71.12)	2.800
	60	(76.20)	3.000	(73.66)	2.900
	62	(78.74)	3.100	(76.20)	3.000
	64	(81.28)	3.200	(78.74)	3.100
	66	(83.82)	3.300	(81.28)	3.200
E	68	(86.36)	3.400	(83.82)	3.300
	70	(88.90)	3.500	(86.36)	3.400
	72	(91.44)	3.600	(88.90)	3.500
	74	(93.98)	3.700	(91.44)	3.600
	76	(96.52)	3.800	(93.98)	3.700
	78	(99.06)	3.900	(96.52)	3.800
D	80	(101.06)	4.000	(99.06)	3.900
	82	(104.14)	4.100	(101.06)	4.000
	84	(106.68)	4.200	(104.14)	4.100
	86	(109.22)	4.300	(106.68)	4.200
	88	(111.76)	4.400	(109.22)	4.300
	90	(114.30)	4.500	(111.76)	4.400
	92	(116.84)	4.600	(114.30)	4.500
C	94	(119.38)	4.700	(116.84)	4.600
	96	(121.92)	4.800	(119.38)	4.700
	98	(124.46)	4.900	(121.92)	4.800
	100	(127.00)	5.000	(124.46)	4.900

NOTES:

- MATERIAL:
PIN: COPPER ALLOY
WAFER: GLASS FILLED LCP (LIQUID CRYSTAL POLYMER, UL 94V-0, COLOR: BLACK).
- FINISH:
TIN = (0.00380)/.000150 MINIMUM TIN PLATE OVER (0.00127)/.000050 MINIMUM NICKEL PLATE.
15 GOLD = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA, (0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA, OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.
30 GOLD = (0.00076)/.000030 MINIMUM GOLD PLATE IN SELECT AREA, (0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA, OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.
GT15 = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA, (0.00254)/.000100 MINIMUM TIN PLATE IN SELECT AREA, OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.

- PRODUCT SPECIFICATION NONE
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES) BULK PACK PER PK-70873-0353.
- MEASURE POINT FOR PLATING THICKNESS.
- FOR ASSEMBLIES WITH VOIDED PINS, REFER TO DRAWING NO. SDA-70280-5001-9999.
- PIN PUSHOUT FORCE 3 POUNDS MINIMUM IN EITHER DIRECTION.
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE IS SHOWN.
- PINS MEET SOLDERABILITY SPEC SMES-152. ABSENCE OF PLATING PERMISSIBLE AT BANDOLIER PIN FAYING SURFACE. (APPROXIMATELY (0.64)/.025 INCH LONG BY (0.15)/.006 INCH WIDE AT 2 LOCATIONS)
- PARTS CONFORM TO CLASS B OF COSMETIC SPECIFICATION PS-45499-002

* 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 PLATING.



ADD P/N 70280-1254 EC NO: UCP2008-2306 DRWN: J.BELL CHKD: LSCHMIDT APPR: FSM/TH	2008/03/31 2008/04/07 2008/04/24	DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
				± mm	± INCH	DRAWN BY SMR	DATE 04/19/1993	TITLE SALES ASSY-HIGH TEMP. DUAL ROW WAFER W/BREAK-OFF OPT. .025 SQ PINS		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				4 PLACES ± --- ± ---		CHECKED BY		DATE		MATERIAL NO. SEE TABLE
				3 PLACES ± --- ± .005		DATE		DOCUMENT NO. SDA-70280-0001-4000		
G6				2 PLACES ± 0.13 ± .01		APPROVED BY SMR			DATE 04/19/1993	
				1 PLACE ± 0.25 ± ---		DATE				
G6				ANGULAR ± 1/2°		APPROVED BY		DATE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
				ANGULAR ± 1/2°		DATE				

9	G6
8	G5
7	G3
6	G3
5	G3
4	G3
3	G3
2	G3
1	G6
SHT. REV.	

	13	12	11	10	9	8	7	6	5	4	3	2	1	
J	ENGINEERING NUMBER A-70280-	RELEASE FOR MANUFACTURE			E REF.	J REF.	C ±(0.25) .010		CONNECTOR END PLATING			P.C. BOARD END PLATING		FOR PACKAGING INFORMATION, SEE NOTE 4, SHEET 1 (UNLESS OTHERWISE SPECIFIED BELOW)
									TYPE	D MEAS.		TYPE	F MEAS.	
	-0001/-0040	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240		TIN	(2.54) .100		TIN	(1.27) .050	
I	-0041/-0080	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240		15 GOLD	(2.54) .100		TIN	(1.27) .050	
	-0081/-0120	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240		30 GOLD	(2.54) .100		TIN	(1.27) .050	
H	-0121/-0160	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320		TIN	(4.57) .180		TIN	(1.27) .050	
	-0161/-0200	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320		15 GOLD	(4.57) .180		TIN	(1.27) .050	
	-0201/-0240	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320		30 GOLD	(4.57) .180		TIN	(1.27) .050	
	-0241/-0280	R.F.M.			(3.94) .155	(12.32) .485	(6.10) .240		30 GOLD	(2.54) .100		TIN	(1.27) .050	

CKTS	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	CKTS	
	N.A.	AX-70280-0001	N.A.	AX-70280-0041	N.A.	AX-70280-0081	N.A.	AX-70280-0121	N/A	AX-70280-0161	N/A	AX-70280-0201	N/A	AX-70280-0241														
04	010-89-7041	A-70280-0002	010-89-7042	A-70280-0042	010-89-7043	A-70280-0082	010-89-7044	A-70280-0122	010-89-7045	A-70280-0162	010-89-7043	A-70280-0202	010-89-7045	A-70280-0242	04													04
06	010-89-7061	A-70280-0003	010-89-7062	A-70280-0043	010-89-7063	A-70280-0083	010-89-7064	A-70280-0123	010-89-7065	A-70280-0163	010-89-7063	A-70280-0203	010-89-7065	A-70280-0243	06													06
08	010-89-7081	A-70280-0004	010-89-7082	A-70280-0044	010-89-7083	A-70280-0084	010-89-7084	A-70280-0124	010-89-7085	A-70280-0164	010-89-7083	A-70280-0204	010-89-7085	A-70280-0244	08													08
10	010-89-7101	A-70280-0005	010-89-7102	A-70280-0045	010-89-7103	A-70280-0085	010-89-7104	A-70280-0125	010-89-7105	A-70280-0165	010-89-7103	A-70280-0205	010-89-7105	A-70280-0245	10													10
12	010-89-7121	A-70280-0006	010-89-7122	A-70280-0046	010-89-7123	A-70280-0086	010-89-7124	A-70280-0126	010-89-7125	A-70280-0166	010-89-7123	A-70280-0206	010-89-7125	A-70280-0246	12													12
14	010-89-7141	A-70280-0007	010-89-7142	A-70280-0047	010-89-7143	A-70280-0087	010-89-7144	A-70280-0127	010-89-7145	A-70280-0167	010-89-7143	A-70280-0207	010-89-7145	A-70280-0247	14													14
16	010-89-7161	A-70280-0008	010-89-7162	A-70280-0048	010-89-7163	A-70280-0088	010-89-7164	A-70280-0128	010-89-7165	A-70280-0168	010-89-7163	A-70280-0208	010-89-7165	A-70280-0248	16													16
18	010-89-7181	A-70280-0009	010-89-7182	A-70280-0049	010-89-7183	A-70280-0089	010-89-7184	A-70280-0129	010-89-7185	A-70280-0169	010-89-7183	A-70280-0209	010-89-7185	A-70280-0249	18													18
20	010-89-7201	A-70280-0010	010-89-7202	A-70280-0050	010-89-7203	A-70280-0090	010-89-7204	A-70280-0130	010-89-7205	A-70280-0170	010-89-7203	A-70280-0210	010-89-7205	A-70280-0250	20													20
22	010-89-7221	A-70280-0011	010-89-7222	A-70280-0051	010-89-7223	A-70280-0091	010-89-7224	A-70280-0131	010-89-7225	A-70280-0171	010-89-7223	A-70280-0211	010-89-7225	A-70280-0251	22													22
24	010-89-7241	A-70280-0012	010-89-7242	A-70280-0052	010-89-7243	A-70280-0092	010-89-7244	A-70280-0132	010-89-7245	A-70280-0172	010-89-7243	A-70280-0212	010-89-7245	A-70280-0252	24													24
26	010-89-7261	A-70280-0013	010-89-7262	A-70280-0053	010-89-7263	A-70280-0093	010-89-7264	A-70280-0133	010-89-7265	A-70280-0173	010-89-7263	A-70280-0213	010-89-7265	A-70280-0253	26													26
28	010-89-7281	A-70280-0014	010-89-7282	A-70280-0054	010-89-7283	A-70280-0094	010-89-7284	A-70280-0134	010-89-7285	A-70280-0174	010-89-7283	A-70280-0214	010-89-7285	A-70280-0254	28													28
30	010-89-7301	A-70280-0015	010-89-7302	A-70280-0055	010-89-7303	A-70280-0095	010-89-7304	A-70280-0135	010-89-7305	A-70280-0175	010-89-7303	A-70280-0215	010-89-7305	A-70280-0255	30													30
32	010-89-7321	A-70280-0016	010-89-7322	A-70280-0056	010-89-7323	A-70280-0096	010-89-7324	A-70280-0136	010-89-7325	A-70280-0176	010-89-7323	A-70280-0216	010-89-7325	A-70280-0256	32													32
34	010-89-7341	A-70280-0017	010-89-7342	A-70280-0057	010-89-7343	A-70280-0097	010-89-7344	A-70280-0137	010-89-7345	A-70280-0177	010-89-7343	A-70280-0217	010-89-7345	A-70280-0257	34													34
36	010-89-7361	A-70280-0018	010-89-7362	A-70280-0058	010-89-7363	A-70280-0098	010-89-7364	A-70280-0138	010-89-7365	A-70280-0178	010-89-7363	A-70280-0218	010-89-7365	A-70280-0258	36													36
38	010-89-7381	A-70280-0019	010-89-7382	A-70280-0059	010-89-7383	A-70280-0099	010-89-7384	A-70280-0139	010-89-7385	A-70280-0179	010-89-7383	A-70280-0219	010-89-7385	A-70280-0259	38													38
40	010-89-7401	A-70280-0020	010-89-7402	A-70280-0060	010-89-7403	A-70280-0100	010-89-7404	A-70280-0140	010-89-7405	A-70280-0180	010-89-7403	A-70280-0220	010-89-7405	A-70280-0260	40													40
42	010-89-7421	A-70280-0021	010-89-7422	A-70280-0061	010-89-7423	A-70280-0101	010-89-7424	A-70280-0141	010-89-7425	A-70280-0181	010-89-7423	A-70280-0221	010-89-7425	A-70280-0261	42													42
44	010-89-7441	A-70280-0022	010-89-7442	A-70280-0062	010-89-7443	A-70280-0102	010-89-7444	A-70280-0142	010-89-7445	A-70280-0182	010-89-7443	A-70280-0222	010-89-7445	A-70280-0262	44													44
46	010-89-7461	A-70280-0023	010-89-7462	A-70280-0063	010-89-7463	A-70280-0103	010-89-7464	A-70280-0143	010-89-7465	A-70280-0183	010-89-7463	A-70280-0223	010-89-7465	A-70280-0263	46													46
48	010-89-7481	A-70280-0024	010-89-7482	A-70280-0064	010-89-7483	A-70280-0104	010-89-7484	A-70280-0144	010-89-7485	A-70280-0184	010-89-7483	A-70280-0224	010-89-7485	A-70280-0264	48													48
50	010-89-7501	A-70280-0025	010-89-7502	A-70280-0065	010-89-7503	A-70280-0105	010-89-7504	A-70280-0145	010-89-7505	A-70280-0185	010-89-7503	A-70280-0225	010-89-7505	A-70280-0265	50													50
52	010-89-7521	A-70280-0026	010-89-7522	A-70280-0066	010-89-7523	A-70280-0106	010-89-7524	A-70280-0146	010-89-7525	A-70280-0186	010-89-7523	A-70280-0226	010-89-7525	A-70280-0266	52													52
54	010-89-7541	A-70280-0027	010-89-7542	A-70280-0067	010-89-7543	A-70280-0107	010-89-7544	A-70280-0147	010-89-7545	A-70280-0187	010-89-7543	A-70280-0227	010-89-7545	A-70280-0267	54													54
56	010-89-7561	A-70280-0028	010-89-7562	A-70280-0068	010-89-7563	A-70280-0108	010-89-7564	A-70280-0148	010-89-7565	A-70280-0188	010-89-7563	A-70280-0228	010-89-7565	A-70280-0268	56													56
58	010-89-7581	A-70280-0029	010-89-7582	A-70280-0069	010-89-7583	A-70280-0109	010-89-7584	A-70280-0149	010-89-7585	A-70280-0189	010-89-7583	A-70280-0229	010-89-7585	A-70280-0269	58													58
60	010-89-7601	A-70280-0030	010-89-7602	A-70280-0070	010-89-7603	A-70280-0110	010-89-7604	A-70280-0150	010-89-7605	A-70280-0190	010-89-7603	A-70280-0230	010-89-7605	A-70280-0270	60													60
62	010-89-7621	A-70280-0031	010-89-7622	A-70280-0071	010-89-7623	A-70280-0111	010-89-7624	A-70280-0151	010-89-7625	A-70280-0191	010-89-7623	A-70280-0231	010-89-7625	A-70280-0271	62													62
64	010-89-7641	A-70280-0032	010-89-7642	A-70280-0072	010-89-7643	A-70280-0112	010-89-7644	A-70280-0152	010-89-7645	A-70280-0192	010-89-7643	A-70280-0232	010-89-7645	A-70280-0272	64													64
66	010-89-7661	A-70280-0033	010-89-7662	A-70280-0073	010-89-7663	A-70280-0113	010-89-7664																					