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Part Number: [0702800442](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Breakaway Header, Dual Row, Vertical, High Temperature, 88 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)
Packaging Specification (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)	88
Circuits (maximum)	88
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
Material - Resin	High Temperature Thermoplastic
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)	152.4
Plating min: Mating (µm)	3.81
Plating min: Termination (µin)	152.4
Plating min: Termination (µm)	3.81
Polarized to Mating Part	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**Reference - Drawing Numbers**

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

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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
I	12	(15.24)	.600	(12.70)	.500
	14	(17.78)	.700	(15.24)	.600
	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
H	26	(33.02)	1.300	(30.48)	1.200
	28	(35.56)	1.400	(33.02)	1.300
	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
F	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
	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 2008/03/31 CHKD: LSCMIDT 2008/04/07 APPR: FSM/TH 2008/04/24	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± ---	3 PLACES ± --- ± .005	DRAWN BY SMR	DATE 04/19/1993	TITLE SALES ASSY-HIGH TEMP. DUAL ROW WAFER W/BREAK-OFF OPT. .025 SQ PINS	
G6	REV	2 PLACES ± .013 ± .01	1 PLACE ± 0.25 ± ---	CHECKED BY	DATE	APPROVED BY SMR	DATE 04/19/1993
		ANGULAR ± 1/2°		MATERIAL NO. SEE TABLE		DOCUMENT NO. SDA-70280-0001-4000	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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.	
	-0439/-0448	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240			TIN	(2.54) .100	TIN	(1.27) .050	
	-0449/-0458	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240			15 GOLD	(2.54) .100	TIN	(1.27) .050	
I	-0459/-0468	R.F.M.			(2.72) .107	(11.10) .437	(6.10) .240			30 GOLD	(2.54) .100	TIN	(1.23) .048	
	-0469/-0478	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320			TIN	(4.57) .180	TIN	(1.27) .050	
	-0479/-0488	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320			15 GOLD	(4.57) .180	TIN	(1.27) .050	
H	-0489/-0498	R.F.M.			(2.79) .110	(13.21) .520	(8.13) .320			30 GOLD	(4.57) .180	TIN	(1.27) .050	
	-0499/-0508	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	CKTS
G	82	70280-0439	A-70280-0439	70280-0449	A-70280-0449	70280-0459	A-70280-0459	70280-0469	A-70280-0469	70280-0479	A-70280-0479	70280-0489	A-70280-0489	70280-0499	A-70280-0499	82
	84	70280-0440	A-70280-0440	70280-0450	A-70280-0450	70280-0460	A-70280-0460	70280-0470	A-70280-0470	70280-0480	A-70280-0480	70280-0490	A-70280-0490	70280-0500	A-70280-0500	84
	86	70280-0441	A-70280-0441	70280-0451	A-70280-0451	70280-0461	A-70280-0461	70280-0471	A-70280-0471	70280-0481	A-70280-0481	70280-0491	A-70280-0491	70280-0501	A-70280-0501	86
	88	70280-0442	A-70280-0442	70280-0452	A-70280-0452	70280-0462	A-70280-0462	70280-0472	A-70280-0472	70280-0482	A-70280-0482	70280-0492	A-70280-0492	70280-0502	A-70280-0502	88
	90	70280-0443	A-70280-0443	70280-0453	A-70280-0453	70280-0463	A-70280-0463	70280-0473	A-70280-0473	70280-0483	A-70280-0483	70280-0493	A-70280-0493	70280-0503	A-70280-0503	90
	92	70280-0444	A-70280-0444	70280-0454	A-70280-0454	70280-0464	A-70280-0464	70280-0474	A-70280-0474	70280-0484	A-70280-0484	70280-0494	A-70280-0494	70280-0504	A-70280-0504	92
	94	70280-0445	A-70280-0445	70280-0455	A-70280-0455	70280-0465	A-70280-0465	70280-0475	A-70280-0475	70280-0485	A-70280-0485	70280-0495	A-70280-0495	70280-0505	A-70280-0505	94
	96	70280-0446	A-70280-0446	70280-0456	A-70280-0456	70280-0466	A-70280-0466	70280-0476	A-70280-0476	70280-0486	A-70280-0486	70280-0496	A-70280-0496	70280-0506	A-70280-0506	96
	98	70280-0447	A-70280-0447	70280-0457	A-70280-0457	70280-0467	A-70280-0467	70280-0477	A-70280-0477	70280-0487	A-70280-0487	70280-0497	A-70280-0497	70280-0507	A-70280-0507	98
	F	100	70280-0448	A-70280-0448	70280-0458	A-70280-0458	70280-0468	A-70280-0468	70280-0478	A-70280-0478	70280-0488	A-70280-0488	70280-0498	A-70280-0498	70280-0508	A-70280-0508

E																
D																
C																

B	A	UPDATE DIMENSIONS EC NO: UCP2007-1440 DRAWN/PRI/DER 2006/12/18 CHKD:ADERR 2006/12/18 APPR:FSM TH 2007/01/10 DESCRIPTION REV	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
						MM/IN		---	INCH		
				4 PLACES ± --- ± ---		DRAWN BY DATE		TITLE			
				3 PLACES ± --- ± ---		DMORGAN 04/12/16		SALES ASSY-HIGH TEMP. DUAL ROW WAFER W/BREAK- OFF OPTION, .025 SQ PINS			
2 PLACES ± --- ± ---		CHECKED BY DATE		MOLEX MOLEX INCORPORATED							
1 PLACE ± --- ± ---		BBARER 04/12/16		DOCUMENT NO.							
ANGULAR ±1/2°		APPROVED BY DATE		SHEET NO.							
		SMILLER 04/12/16		5 OF 8							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SDA-70280-0001-4000							
		SEE CHART									
		SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							