

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0702800484](#)

Status: **Active**

Description: 2.54mm (.100") Pitch C-Grid® Breakaway Header, Dual Row, Vertical, High Temperature, 92 Circuits, 0.38µm (15µ") Gold (Au) Selective Plating, Tin (Sn) PC Tail Plating, 2.79mm (.110") PC Tail

Documents:

[3D Model](#)

[Packaging Specification \(PDF\)](#)

[Drawing \(PDF\)](#)

[Product Specification PS-70280 \(PDF\)](#)

[RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

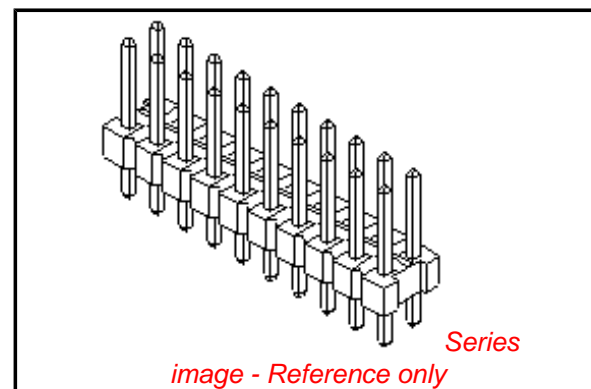
CSA LR19980
UL E29179

General

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

Physical

Breakaway Yes
Circuits (Loaded) 92
Circuits (maximum) 92
Color - Resin Black
Durability (mating cycles max) 50
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 Gold
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) 15.2
Plating min: Mating (µm) 0.38
Plating min: Termination (µin) 80
Plating min: Termination (µm) 2
Polarized to Mating Part No
Shrouded No
Stackable Yes
Temperature Range - Operating -40°C to +105°C



EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

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.

China RoHS



Search Parts in this Series

[70280Series](#)

Termination Interface: Style

Through Hole

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

This document was generated on 03/31/2010

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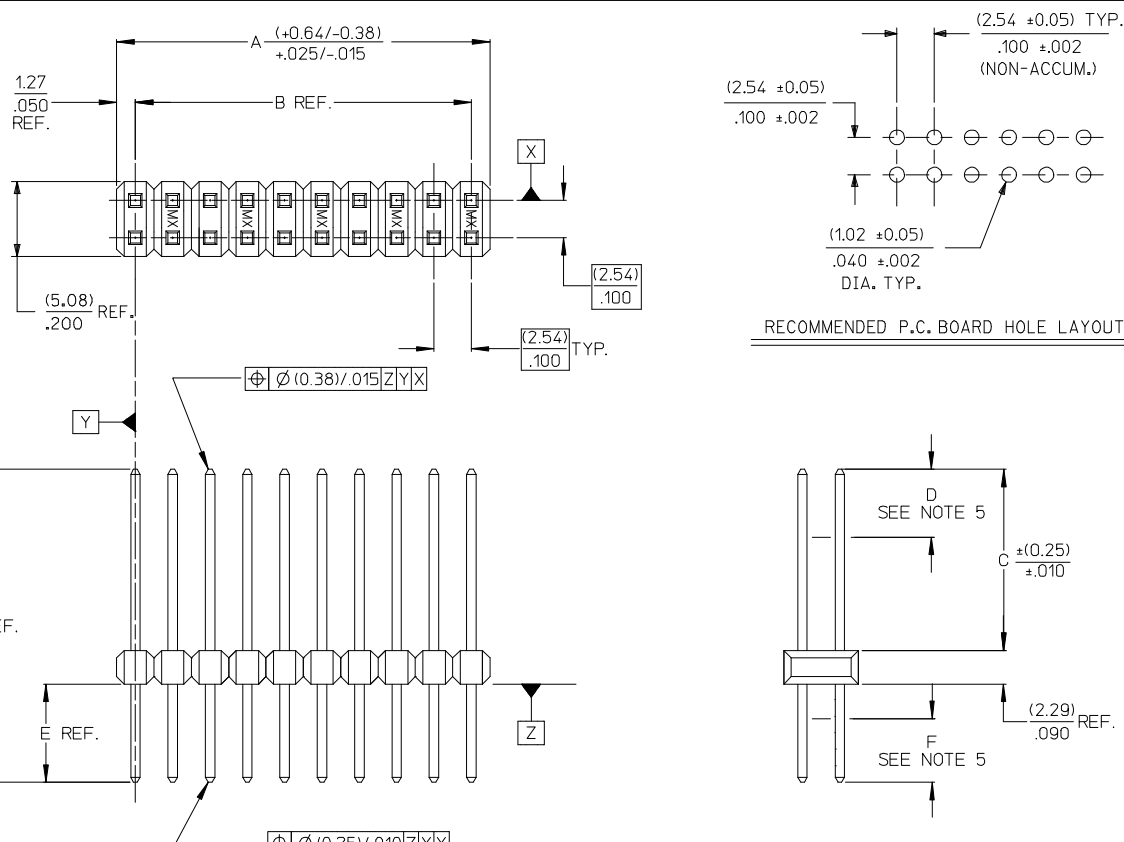
| CKT. SIZE | DIM. A REF. | | DIM. B REF. | | |
|-----------|-------------|----------|-------------|----------|-------|
| | (MM) | INCH | (MM) | INCH | |
| J | 4 | (5.08) | .200 | (2.54) | .100 |
| | 6 | (7.62) | .300 | (5.08) | .200 |
| | 8 | (10.16) | .400 | (7.62) | .300 |
| | 10 | (12.70) | .500 | (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: JBELL CHKD: LSCMIDT 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 | | APPROVED BY SMR | | DATE 04/19/1993 | | |
| G6 | | | | 2 PLACES ± 0.13 ± .01 | | APPROVED BY | | DATE | | SHEET NO. 1 OF 9 |
| | | | | 1 PLACE ± 0.25 ± --- | | ANGULAR ± 1/2° | | 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 | 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 | 70280-0509 | A-70280-0509 | 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 | 70280-0510 | A-70280-0510 | 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 | 70280-0511 | A-70280-0511 | 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 | 70280-0512 | A-70280-0512 | 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 | 70280-0513 | A-70280-0513 | 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 | 70280-0514 | A-70280-0514 | 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 | 70280-0515 | A-70280-0515 | 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 | 70280-0516 | A-70280-0516 | 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 | 70280-0517 | A-70280-0517 | 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 | 70280-0518 | A-70280-0518 |

| | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| E | | | | | | | | | | | | | | | | | | |
| D | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|---|---|--|---|---|---|-------|--------------|------------------------|
| A | B | UPDATE DIMENSIONS EC NO: UCP2007-1440 DRAWN/PRI/DER 2006/12/18 CHKD:ADERR 2006/12/18 APPR:FSM TH 2007/01/10 DESCRIPTION | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| | | | $\nabla=0$ $\nabla=0$ | mm INCH | MM/IN | --- | INCH | |
| | | | 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- | DRAWN BY DATE DMORGAN 04/12/16 CHECKED BY DATE BBARER 04/12/16 APPROVED BY DATE SMILLER 04/12/16 | TITLE SALES ASSY-HIGH TEMP. DUAL ROW WAFER W/BREAK- OFF OPTION, .025 SQ PINS | | | |
| | | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO. SEE CHART SIZE C THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | DOCUMENT NO. SDA-70280-0001-4000 SHEET NO. 5 OF 8 | | | |