

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0010897741](#)  
**Status:** **Active**  
**Description:** 2.54mm (.100") Pitch C-Grid® Breakaway Header, Dual Row, Vertical, High Temperature, 74 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**

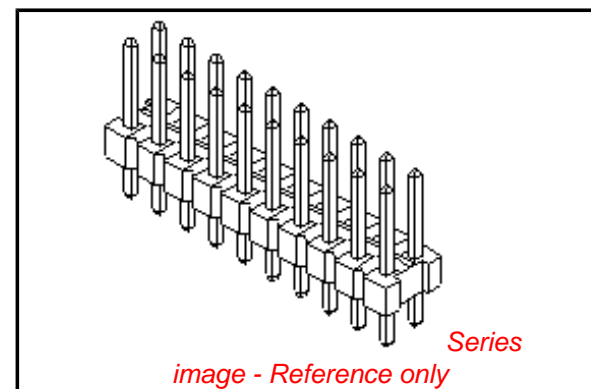
CSA LR19980  
 UL E29179

**General**

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

**Physical**

Breakaway Yes  
 Circuits (Loaded) 74  
 Circuits (maximum) 74  
 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) 150  
 Plating min: Mating (µm) 3.75  
 Plating min: Termination (µin) 150  
 Plating min: Termination (µm) 3.75  
 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](mailto: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 70280-0037

**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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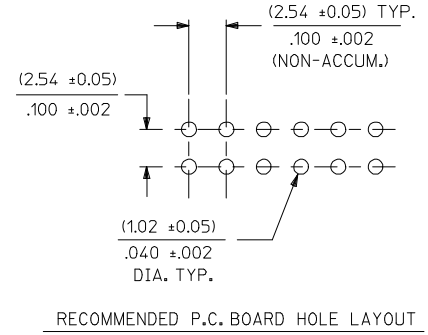
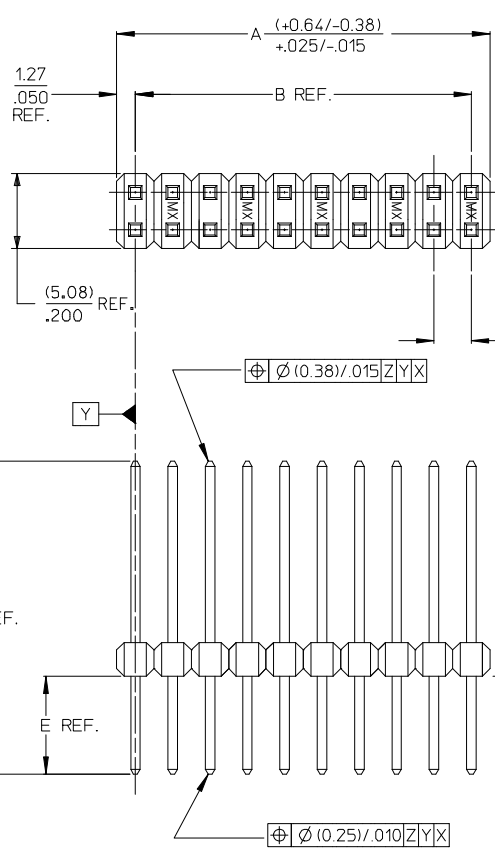
| CKT. SIZE | DIM. A REF. |          | DIM. B REF. |          |       |
|-----------|-------------|----------|-------------|----------|-------|
|           | (MM)        | INCH     | (MM)        | INCH     |       |
| J         | 4           | (5.08)   | .200        | (2.54)   | .100  |
|           | 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:**

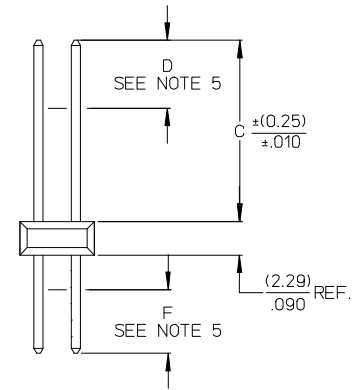
- MATERIAL:  
PIN: COPPER ALLOY  
WAFER: GLASS FILLED LCP (LIQUID CRYSTAL POLYMER, UL 94V-0, COLOR: BLACK).
- FINISH:  
TIN = (0.00380)/.000150 MINIMUM TIN PLATE OVER (0.00127)/.000050 MINIMUM NICKEL PLATE.  
15 GOLD = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA, (0.00190)/.000075 MINIMUM TIN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



RECOMMENDED P.C. BOARD HOLE LAYOUT



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

|  |  |                               |   |                                       |                          |  |  |                      |                           |
|--|--|-------------------------------|---|---------------------------------------|--------------------------|--|--|----------------------|---------------------------|
| ADD P/N 70280-1254<br>EC NO: UCP2008-2306<br>DRWN: J.BELL<br>CHKD: LSCMIDT<br>APPR: FSM/TH | 2008/03/31<br>2008/04/07<br>2008/04/24 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                                       | DIMENSION STYLE<br>MM/IN |  | SCALE<br>4:1   | DESIGN UNITS<br>INCH | THIRD ANGLE PROJECTION    |
|  |  |                               | 4 PLACES ±--- ±---<br>3 PLACES ±--- ±.005<br>2 PLACES ±.013 ±.01<br>1 PLACE ±.025 ±---<br>ANGULAR ±1/2°                       | DRAWN BY<br>SMR<br>DATE<br>04/19/1993 | CHECKED BY<br>DATE       | APPROVED BY<br>SMR<br>DATE<br>04/19/1993 | TITLE<br>SALES ASSY-HIGH TEMP.<br>DUAL ROW WAFER W/BREAK-OFF OPT. .025 SQ PINS | MOLEX INCORPORATED   | MATERIAL NO.<br>SEE TABLE |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                       |  |                               | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                       |                          |  |  |                      |                           |

