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Part Number: [0702871210](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Header, Breakaway, Dual Row, Vertical, with Retention Pin, 32 Circuits, 6.10mm (.240") Mating Pin Length, 0.76µm (30µ") Gold (Au) Selective Plating

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 | 70287 |
| Application | Board-to-Board, Wire-to-Board |
| Product Name | C-Grid® |

Physical

| | |
|--------------------------------|--------------------------------|
| Breakaway | Yes |
| Circuits (Loaded) | 32 |
| Circuits (maximum) | 32 |
| 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 | N/A |
| Lock to Mating Part | None |
| Material - Metal | Brass |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.125 In |
| PC Tail Length (mm) | 3.18 mm |
| PCB Locator | No |
| PCB Retention | None |
| PCB Thickness Recommended (in) | 0.062 In |
| PCB Thickness Recommended (mm) | 1.57 mm |
| Packaging Type | Bag |
| Pitch - Mating Interface (in) | 0.100 In |
| Pitch - Mating Interface (mm) | 2.54 mm |
| Pitch - Term. Interface (in) | 0.100 In |
| Pitch - Term. Interface (mm) | 2.54 mm |
| Plating min: Mating (µin) | 32.000 |
| Plating min: Mating (µm) | 0.80 |
| Plating min: Termination (µin) | 80.000 |
| Plating min: Termination (µm) | 2.00 |
| Polarized to Mating Part | No |
| Polarized to PCB | No |



*Series
image - Reference only*

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

[70287Series](#)

Mates With

7859 Shunt, C-Grid Receptacles, SL™
 Crimp, FFC and IDT Housing

| | |
|--------------------------------|-----------------|
| Shrouded | No |
| Stackable | Yes |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -40°C to +120°C |
| Termination Interface: Style | Through Hole |

Electrical

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

Solder Process Data

| | |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 5 |
| Lead-free Process Capability | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

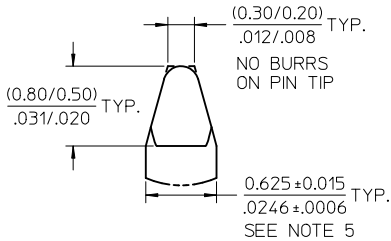
Material Info

Reference - Drawing Numbers

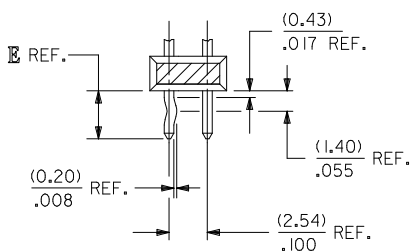
| | |
|-----------------------|--------------|
| Product Specification | PS-70280 |
| Sales Drawing | SD-70287-004 |

This document was generated on 03/31/2010

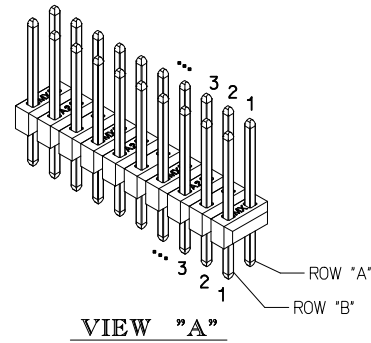
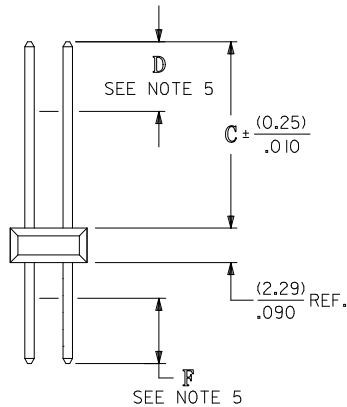
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DETAIL "Y"
SCALE 30:1



SECTION Z-Z - RETENTION PIN DETAIL
2 CONTACTS LOCATED ON CENTER OF SAME ROW
(SEE NOTE 6)



NOTES:

- MATERIAL: WAFER - GLASS FILLED LIQUID CRYSTAL POLYMER, UL94V-0, COLOR: BLACK
PIN - COPPER ALLOY
- FINISH: (TIN) OVERALL TIN: (0.00381)/.000150 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
(15 GOLD) SELECT GOLD: (0.00038)/.000015 MIN., SELECT TIN: (0.00191)/.000075 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
(30 GOLD) SELECT GOLD: (0.00076)/.000030 MIN., SELECT TIN: (0.00191)/.000075 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
- PRODUCT SPECIFICATION: PS-70280
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES) PARTS TO BE PACKAGED PER PK-70873-0353.
- MEASURE POINT FOR PLATING THICKNESS. DIMENSION D IS ALSO THE MEASURE POINT FOR PIN WIDTH.
- RETENTIVE TAIL LOCATIONS (SEE VIEW "A")

| NUMBER OF CIRCUITS IN ROW B | RETENTIVE TAIL LOCATIONS |
|-----------------------------|--|
| EVEN NUMBER | 2 PINS IN THE MIDDLE OF ROW B |
| ODD NUMBER | PIN IN THE CENTER OF ROW B AND ONE OTHER PIN IN ROW B ON EITHER SIDE OF THE CENTER PIN |

- PIN PUSHOUT FORCE: 3 LBS. MIN. (IN EITHER DIRECTION)
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE IS SHOWN.
- PINS MUST MEET SOLDERABILITY SPEC. SMES-152, EXCEPT VOIDS ARE PERMISSIBLE AT BANDOLIER PIN FAYING SURFACE. (APPROXIMATELY (0.64)/.025 LNG X (0.15)/.006 WIDE AT 2 LOCATIONS)
- PARTS CONFORM TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

| | |
|------|------|
| 2-* | A |
| 1 | A |
| SHT. | REV. |

INITIAL RELEASE
 EC NO: UCP2010-0011
 DRWN:MKIPPER 2010/02/12
 CHKD:JBELL 2010/02/15
 APPR:FSMITH 2010/03/02
 DESCRIPTION
 REV.

QUALITY SYMBOLS
 ▽=0
 ▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

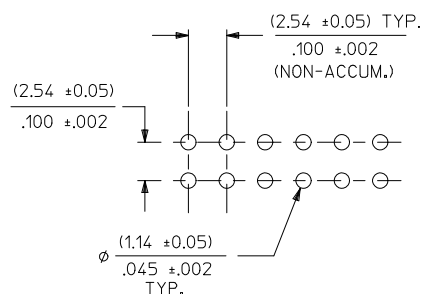
| | mm | INCH |
|----------|--------|---------|
| 4 PLACES | ± .005 | ± .0005 |
| 3 PLACES | ± .005 | ± .0005 |
| 2 PLACES | ± 0.13 | ± .01 |
| 1 PLACE | ± 0.25 | ± .01 |

 ANGULAR ±1/2°
 DRAFT WHERE APPLICABLE
 MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
 MM/IN
 DRAWN BY DATE
 MKIPPER 2009/11/02
 CHECKED BY DATE
 JBELL 2009/11/02
 APPROVED BY DATE
 FSMITH 2009/11/02
 MATERIAL NO.
SEE CHART
 SIZE C THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SCALE 1:1
 DESIGN UNITS INCH
 THIRD ANGLE PROJECTION
 TITLE
SALES ASSY-HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS
MOLEX INCORPORATED
 MOLEX DOCUMENT NO. SD-70287-004 SHEET NO. 1 OF *

| CKT. SIZE | DIM. A REF. | | DIM. B REF. | |
|-----------|-------------|-------|-------------|-------|
| | (MM) | INCH | (MM) | INCH |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80 | (101.60) | 4.000 | (99.06) | 3.900 |
| 82 | (104.14) | 4.100 | (101.60) | 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 |
| 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 |



PCB LAYOUT: COMPONENT SIDE
TYPICAL PCB THICKNESS: (1.57)/.062

| ENG. NO: A-70287-1000 / 1048 | | | |
|------------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (6.10) / .240 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (11.56) / .455 | |
| MATING SIDE PLATING | | TIN | |
| DIM. D (MEASURE PT.) | | (2.54) / .100 | |
| P.C. BOARD SIDE PLATING | | TIN | |
| DIM. F (MEASURE PT.) | | (1.27) / .050 | |
| RETENTIVE PIN LOCATION | | SEE NOTE 6, SHEET 1 | |
| PACKAGING | | BULK - PK-70873-0353 | |
| CKTS | MATERIAL NUMBER | CKTS | MATERIAL NUMBER |
| 04 | 70287-1000 | 54 | 70287-1025 |
| 06 | 70287-1001 | 56 | 70287-1026 |
| 08 | 70287-1002 | 58 | 70287-1027 |
| 10 | 70287-1003 | 60 | 70287-1028 |
| 12 | 70287-1004 | 62 | 70287-1029 |
| 14 | 70287-1005 | 64 | 70287-1030 |
| 16 | 70287-1006 | 66 | 70287-1031 |
| 18 | 70287-1007 | 68 | 70287-1032 |
| 20 | 70287-1008 | 70 | 70287-1033 |
| 22 | 70287-1009 | 72 | 70287-1034 |
| 24 | 70287-1010 | 74 | 70287-1035 |
| 26 | 70287-1011 | 76 | 70287-1036 |
| 28 | 70287-1012 | 78 | 70287-1037 |
| 30 | 70287-1013 | 80 | 70287-1038 |
| 32 | 70287-1014 | 82 | 70287-1039 |
| 34 | 70287-1015 | 84 | 70287-1040 |
| 36 | 70287-1016 | 86 | 70287-1041 |
| 38 | 70287-1017 | 88 | 70287-1042 |
| 40 | 70287-1018 | 90 | 70287-1043 |
| 42 | 70287-1019 | 92 | 70287-1044 |
| 44 | 70287-1020 | 94 | 70287-1045 |
| 46 | 70287-1021 | 96 | 70287-1046 |
| 48 | 70287-1022 | 98 | 70287-1047 |
| 50 | 70287-1023 | 100 | 70287-1048 |
| 52 | 70287-1024 | | |

| ENG. NO: A-70287-1098 / 1146 | | | |
|------------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (6.10) / .240 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (11.56) / .455 | |
| MATING SIDE PLATING | | 15 GOLD | |
| DIM. D (MEASURE PT.) | | (2.54) / .100 | |
| P.C. BOARD SIDE PLATING | | TIN | |
| DIM. F (MEASURE PT.) | | (1.27) / .050 | |
| RETENTIVE PIN LOCATION | | SEE NOTE 6, SHEET 1 | |
| PACKAGING | | BULK - PK-70873-0353 | |
| CKTS | MATERIAL NUMBER | CKTS | MATERIAL NUMBER |
| 04 | 70287-1098 | 54 | 70287-1123 |
| 06 | 70287-1099 | 56 | 70287-1124 |
| 08 | 70287-1100 | 58 | 70287-1125 |
| 10 | 70287-1101 | 60 | 70287-1126 |
| 12 | 70287-1102 | 62 | 70287-1127 |
| 14 | 70287-1103 | 64 | 70287-1128 |
| 16 | 70287-1104 | 66 | 70287-1129 |
| 18 | 70287-1105 | 68 | 70287-1130 |
| 20 | 70287-1106 | 70 | 70287-1131 |
| 22 | 70287-1107 | 72 | 70287-1132 |
| 24 | 70287-1108 | 74 | 70287-1133 |
| 26 | 70287-1109 | 76 | 70287-1134 |
| 28 | 70287-1110 | 78 | 70287-1135 |
| 30 | 70287-1111 | 80 | 70287-1136 |
| 32 | 70287-1112 | 82 | 70287-1137 |
| 34 | 70287-1113 | 84 | 70287-1138 |
| 36 | 70287-1114 | 86 | 70287-1139 |
| 38 | 70287-1115 | 88 | 70287-1140 |
| 40 | 70287-1116 | 90 | 70287-1141 |
| 42 | 70287-1117 | 92 | 70287-1142 |
| 44 | 70287-1118 | 94 | 70287-1143 |
| 46 | 70287-1119 | 96 | 70287-1144 |
| 48 | 70287-1120 | 98 | 70287-1145 |
| 50 | 70287-1121 | 100 | 70287-1146 |
| 52 | 70287-1122 | | |

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|---------------------|------|----------------------------|--------------|--|--------------|
| A | REV: | ECR/ECN INFORMATION | TITLE: | SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS | SHEET No. |
| | | EC No: UCP2010-0011 | | | - 2 - |
| | | DATE: 3/2/2010 | | | |
| DOCUMENT NUMBER: | | CREATED / REVISED BY: | CHECKED BY: | APPROVED BY: | |
| SD-70287-004 | | MKIPPER | JBELL | FSMITH | |

ENG. NO: A-70287-1196 / 1244

| | | | |
|-------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (6.10) / .240 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (11.56) / .455 | |
| MATING SIDE PLATING | | 30 GOLD | |
| DIM. D (MEASURE PT.) | | (2.54) / .100 | |
| P.C. BOARD SIDE PLATING | | TIN | |
| DIM. F (MEASURE PT.) | | (1.27) / .050 | |
| RETENTIVE PIN LOCATION | | SEE NOTE 6, SHEET 1 | |
| PACKAGING | | BULK - PK-70873-0353 | |
| CKTS | MATERIAL NUMBER | CKTS | MATERIAL NUMBER |
| 04 | 70287-1196 | 54 | 70287-1221 |
| 06 | 70287-1197 | 56 | 70287-1222 |
| 08 | 70287-1198 | 58 | 70287-1223 |
| 10 | 70287-1199 | 60 | 70287-1224 |
| 12 | 70287-1200 | 62 | 70287-1225 |
| 14 | 70287-1201 | 64 | 70287-1226 |
| 16 | 70287-1202 | 66 | 70287-1227 |
| 18 | 70287-1203 | 68 | 70287-1228 |
| 20 | 70287-1204 | 70 | 70287-1229 |
| 22 | 70287-1205 | 72 | 70287-1230 |
| 24 | 70287-1206 | 74 | 70287-1231 |
| 26 | 70287-1207 | 76 | 70287-1232 |
| 28 | 70287-1208 | 78 | 70287-1233 |
| 30 | 70287-1209 | 80 | 70287-1234 |
| 32 | 70287-1210 | 82 | 70287-1235 |
| 34 | 70287-1211 | 84 | 70287-1236 |
| 36 | 70287-1212 | 86 | 70287-1237 |
| 38 | 70287-1213 | 88 | 70287-1238 |
| 40 | 70287-1214 | 90 | 70287-1239 |
| 42 | 70287-1215 | 92 | 70287-1240 |
| 44 | 70287-1216 | 94 | 70287-1241 |
| 46 | 70287-1217 | 96 | 70287-1242 |
| 48 | 70287-1218 | 98 | 70287-1243 |
| 50 | 70287-1219 | 100 | 70287-1244 |
| 52 | 70287-1220 | | |

ENG. NO: A-70287-1294

| | | | |
|-------------------------|-----------------|--|----------|
| DIM. C | | (6.10) / .240 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (11.56) / .455 | |
| MATING SIDE PLATING | | TIN | |
| DIM. D (MEASURE PT.) | | (2.54) / .100 | |
| P.C. BOARD SIDE PLATING | | TIN | |
| DIM. F (MEASURE PT.) | | (1.27) / .050 | |
| RETENTIVE PIN LOCATION | | ROW B - CKTS 1, 5 (SEE NOTE 6, SHEET 1) | |
| PACKAGING | | BULK - PK-70873-0353 | |
| | | VOID PIN LOCATION | |
| CKTS | MATERIAL NUMBER | ROW | LOCATION |
| 10 | 70287-1294 | A | 2, 3 |
| | | B | 2, 3 |
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| A | REV: | ECR/ECN INFORMATION | TITLE: | SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS | SHEET No. |
| | | EC No: UCP2010-0011 | | | - 3 - |
| | | DATE: 3/2/2010 | | | |
| DOCUMENT NUMBER: | | CREATED / REVISED BY: | CHECKED BY: | APPROVED BY: | |
| SD-70287-004 | | MKIPPER | JBELL | FSMITH | |

ENG. NO: A-70287-1295

| | | | |
|-------------------------|--|-----|----------|
| DIM. C | (5.84) / .230 | | |
| DIM. E (REF.) | (2.97) / .117 | | |
| DIM. L (REF.) | (11.10) / .437 | | |
| MATING SIDE PLATING | 15 GOLD | | |
| DIM. D (MEASURE PT.) | (2.54) / .100 | | |
| P.C. BOARD SIDE PLATING | TIN | | |
| DIM. F (MEASURE PT.) | (1.27) / .050 | | |
| RETENTIVE PIN LOCATION | ROW B - CKTS 3, 4 (SEE NOTE 6, SHEET 1) | | |
| PACKAGING | BULK - PK-70873-0353 | | |
| VOID PIN LOCATION | | | |
| CKTS | MATERIAL NUMBER | ROW | LOCATION |
| 10 | 70287-1295 | A | 1 |
| | | | |
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| A | REV: | ECR/ECN INFORMATION | TITLE: | SHEET No. |
| | | EC No: UCP2010-0011 | SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS | - 4 - |
| | DATE: 3/2/2010 | | | |
| DOCUMENT NUMBER: | | CREATED / REVISED BY: | CHECKED BY: | APPROVED BY: |
| SD-70287-004 | | MKIPPER | JBELL | FSMITH |