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Part Number: [0702871083](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Header, Breakaway, Dual Row, Vertical, with Retention Pin, 72 Circuits, 8.13mm (.320") Mating Pin Length, Tin (Sn) Plating

Documents:

| | |
|---|--|
| 3D Model | Product Specification PS-70280 (PDF) |
| Packaging Specification (PDF) | RoHS Certificate of Compliance (PDF) |
| Drawing (PDF) | |

Agency Certification

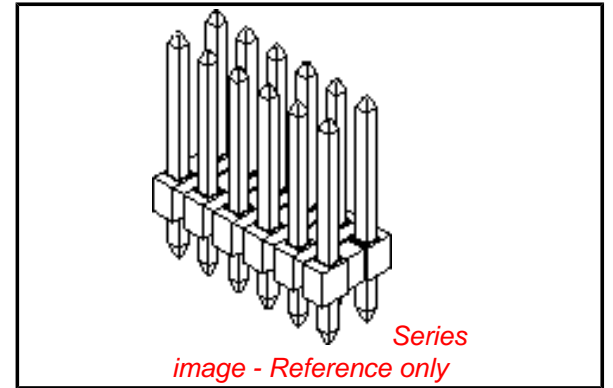
| | |
|-----|---------|
| CSA | LR19980 |
| UL | E29179 |

General

| | |
|----------------|-------------------------------|
| Product Family | PCB Headers |
| Series | 70287 |
| Application | Board-to-Board, Wire-to-Board |
| Product Name | C-Grid® |

Physical

| | |
|--------------------------------|--------------------------------|
| Breakaway | Yes |
| Circuits (Loaded) | 72 |
| Circuits (maximum) | 72 |
| 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) | 152.400 |
| Plating min: Mating (µm) | 3.81 |
| Plating min: Termination (µin) | 152.400 |
| Plating min: Termination (µm) | 3.81 |
| Polarized to Mating Part | No |
| Polarized to PCB | No |
| Shrouded | No |



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
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

| | |
|--------------------------------|-----------------|
| 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 | 245 |

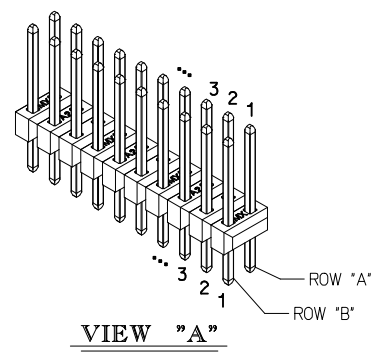
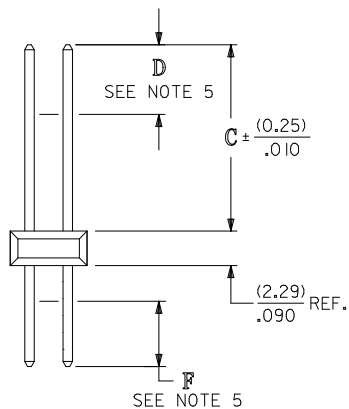
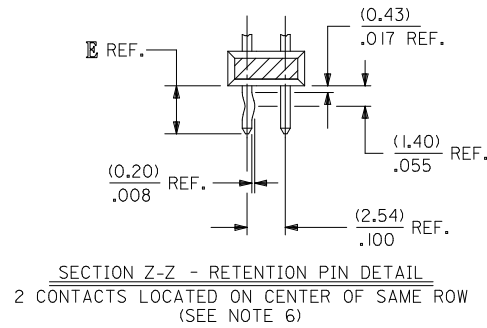
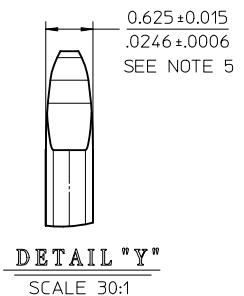
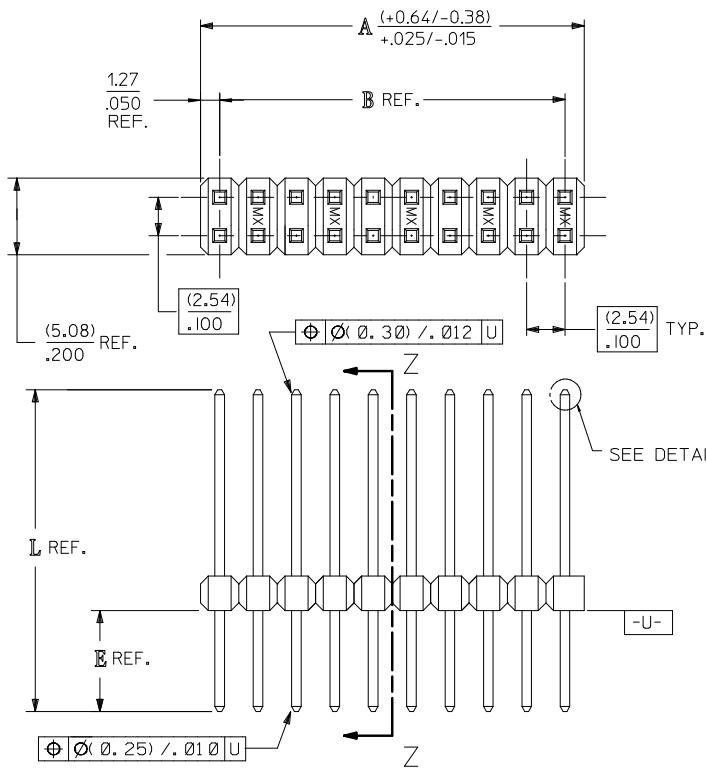
Material Info

Reference - Drawing Numbers

| | |
|-----------------------|--------------|
| Product Specification | PS-70280 |
| Sales Drawing | SD-70287-003 |

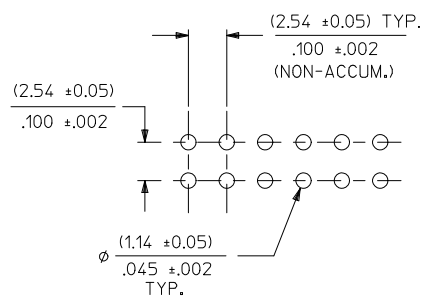
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- NOTES:**
- MATERIAL: WAFER - GLASS FILLED LIQUID CRYSTAL POLYMER, UL94V-0, COLOR: BLACK
PIN - COPPER ALLOY
 - FINISH: (TIN) OVERALL TIN: (0.00381)/.000150 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
(15 GOLD) SELECT GOLD: (0.00038)/.000015 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 |



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

| 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 |

- 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.

PARTS LISTED ON THIS DRAWING REPLACE PARTS LISTED ON DRAWING SDA-70287-0001-5000 WHICH WILL BECOME OBSOLETE.

| | | | | | | | |
|--|--|---|-----------------|---|--------------|--|---|
| REMOVE PART #S EC NO: UCP2010-0011 DRAWN: KIPPER 2010/02/12 CHKD: BELLE 2010/02/15 APPR: FSMITH 2010/03/02 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | |
| | | mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- ANGULAR ± 1/2° | MM/IN | 1:1 | INCH | DRAWN BY ADERR DATE 2006/09/01 CHECKED BY LSCMHMT DATE 2006/09/01 APPROVED BY FSMITH DATE 2006/09/05 | TITLE SALES ASSY-HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS MOLEX INCORPORATED |
| 2-* B1 1 B1 SHT. REV. B1 | 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 | | | |

| ENG. NO: A-70287-1049 / 1097 | | | |
|------------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (8.13) / .320 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (13.59) / .535 | |
| MATING SIDE PLATING | | TIN | |
| DIM. D (MEASURE PT.) | | (4.57) / .180 | |
| 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 | 70287-1049 | 54 | 70287-1074 |
| 06 | 70287-1050 | 56 | 70287-1075 |
| 08 | 70287-1051 | 58 | 70287-1076 |
| 10 | 70287-1052 | 60 | 70287-1077 |
| 12 | 70287-1053 | 62 | 70287-1078 |
| 14 | 70287-1054 | 64 | 70287-1079 |
| 16 | 70287-1055 | 66 | 70287-1080 |
| 18 | 70287-1056 | 68 | 70287-1081 |
| 20 | 70287-1057 | 70 | 70287-1082 |
| 22 | 70287-1058 | 72 | 70287-1083 |
| 24 | 70287-1059 | 74 | 70287-1084 |
| 26 | 70287-1060 | 76 | 70287-1085 |
| 28 | 70287-1061 | 78 | 70287-1086 |
| 30 | 70287-1062 | 80 | 70287-1087 |
| 32 | 70287-1063 | 82 | 70287-1088 |
| 34 | 70287-1064 | 84 | 70287-1089 |
| 36 | 70287-1065 | 86 | 70287-1090 |
| 38 | 70287-1066 | 88 | 70287-1091 |
| 40 | 70287-1067 | 90 | 70287-1092 |
| 42 | 70287-1068 | 92 | 70287-1093 |
| 44 | 70287-1069 | 94 | 70287-1094 |
| 46 | 70287-1070 | 96 | 70287-1095 |
| 48 | 70287-1071 | 98 | 70287-1096 |
| 50 | 70287-1072 | 100 | 70287-1097 |
| 52 | 70287-1073 | | |

| ENG. NO: A-70287-1147 / 1195 | | | |
|------------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (8.13) / .320 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (13.59) / .535 | |
| MATING SIDE PLATING | | 15 GOLD | |
| DIM. D (MEASURE PT.) | | (4.57) / .180 | |
| 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 | 70287-1147 | 54 | 70287-1172 |
| 06 | 70287-1148 | 56 | 70287-1173 |
| 08 | 70287-1149 | 58 | 70287-1174 |
| 10 | 70287-1150 | 60 | 70287-1175 |
| 12 | 70287-1151 | 62 | 70287-1176 |
| 14 | 70287-1152 | 64 | 70287-1177 |
| 16 | 70287-1153 | 66 | 70287-1178 |
| 18 | 70287-1154 | 68 | 70287-1179 |
| 20 | 70287-1155 | 70 | 70287-1180 |
| 22 | 70287-1156 | 72 | 70287-1181 |
| 24 | 70287-1157 | 74 | 70287-1182 |
| 26 | 70287-1158 | 76 | 70287-1183 |
| 28 | 70287-1159 | 78 | 70287-1184 |
| 30 | 70287-1160 | 80 | 70287-1185 |
| 32 | 70287-1161 | 82 | 70287-1186 |
| 34 | 70287-1162 | 84 | 70287-1187 |
| 36 | 70287-1163 | 86 | 70287-1188 |
| 38 | 70287-1164 | 88 | 70287-1189 |
| 40 | 70287-1165 | 90 | 70287-1190 |
| 42 | 70287-1166 | 92 | 70287-1191 |
| 44 | 70287-1167 | 94 | 70287-1192 |
| 46 | 70287-1168 | 96 | 70287-1193 |
| 48 | 70287-1169 | 98 | 70287-1194 |
| 50 | 70287-1170 | 100 | 70287-1195 |
| 52 | 70287-1171 | | |

| | | | |
|--|--|---|--------------------------------------|
| B1 | REV: <u>ECR/ECN INFORMATION</u> | TITLE: SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS | SHEET No. - 2 - |
| | EC No: UCP2010-0011 | | |
| | DATE: 3/2/2010 | | |
| <u>DOCUMENT NUMBER:</u> SD-70287-003 | <u>CREATED / REVISED BY:</u> MKIPPER | <u>CHECKED BY:</u> JBELL | <u>APPROVED BY:</u> FSMITH |

ENG. NO: A-70287-1245 / 1293

| | | | |
|-------------------------|-----------------|----------------------|-----------------|
| DIM. C | | (8.13) / .320 | |
| DIM. E (REF.) | | (3.18) / .125 | |
| DIM. L (REF.) | | (13.59) / .535 | |
| MATING SIDE PLATING | | 30 GOLD | |
| DIM. D (MEASURE PT.) | | (4.57) / .180 | |
| 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 | 70287-1245 | 54 | 70287-1270 |
| 06 | 70287-1246 | 56 | 70287-1271 |
| 08 | 70287-1247 | 58 | 70287-1272 |
| 10 | 70287-1248 | 60 | 70287-1273 |
| 12 | 70287-1249 | 62 | 70287-1274 |
| 14 | 70287-1250 | 64 | 70287-1275 |
| 16 | 70287-1251 | 66 | 70287-1276 |
| 18 | 70287-1252 | 68 | 70287-1277 |
| 20 | 70287-1253 | 70 | 70287-1278 |
| 22 | 70287-1254 | 72 | 70287-1279 |
| 24 | 70287-1255 | 74 | 70287-1280 |
| 26 | 70287-1256 | 76 | 70287-1281 |
| 28 | 70287-1257 | 78 | 70287-1282 |
| 30 | 70287-1258 | 80 | 70287-1283 |
| 32 | 70287-1259 | 82 | 70287-1284 |
| 34 | 70287-1260 | 84 | 70287-1285 |
| 36 | 70287-1261 | 86 | 70287-1286 |
| 38 | 70287-1262 | 88 | 70287-1287 |
| 40 | 70287-1263 | 90 | 70287-1288 |
| 42 | 70287-1264 | 92 | 70287-1289 |
| 44 | 70287-1265 | 94 | 70287-1290 |
| 46 | 70287-1266 | 96 | 70287-1291 |
| 48 | 70287-1267 | 98 | 70287-1292 |
| 50 | 70287-1268 | 100 | 70287-1293 |
| 52 | 70287-1269 | | |

| | | | | | |
|---------------------|------|----------------------------|--------------|--|--------------|
| B1 | 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-70287-003 | | MKIPPER | JBELL | FSMITH | |