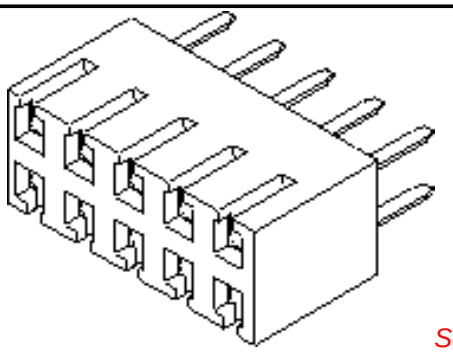
This document was generated on 05/31/2010

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

**Part Number:** 0015445818
**Status:** Active
**Overview:** cgrid__sl_products
**Description:** 2.54mm (.100") Pitch C-Grid® Receptacle, Through Hole, Dual Row, High Profile, Vertical, High-Temperature, 18 Circuits



*Series image - Reference only*

**Documents:**

- 3D Model
- Drawing (PDF)
- Product Specification PS-70181 (PDF)
- RoHS Certificate of Compliance (PDF)

## Agency Certification

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

## General

| | |
|---|---|
| Product Family | PCB Receptacles |
| Series | 71850 |
| Application | Board-to-Board |
| Overview | cgrid__sl_products |
| Product Name | C-Grid® |

## Physical

| | |
|---|---|
| Circuits (Loaded) | 18 |
| Color - Resin | Black |
| Durability (mating cycles max) | 50 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Material - Metal | Phosphor Bronze |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.120 In |
| PC Tail Length (mm) | 3.05 mm |
| PCB Locator | No |
| PCB Retention | None |
| PCB Thickness Recommended (in) | 0.062 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.100 In |
| Pitch - Mating Interface (mm) | 2.54 mm |
| Plating min: Mating (µin) | 15 |
| Plating min: Mating (µm) | 0.375 |
| Plating min: Termination (µin) | 75 |
| Plating min: Termination (µm) | 1.875 |
| Polarized to PCB | No |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 2.5A |
| Voltage - Maximum | 250V |

## Solder Process Data

| | |
|---|---|
| Lead-free Process Capability | SMC & Wave Capable (TH only) |
| Process Temperature max. C | 260 |

**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**
71850Series

**Mates With**
8624 , 70203 , 70246 Straight Header, 70247 Right Angle Header, 70287 , 70289 , 70227 , 70567 , 70280 , 70524 , 70260 , 8723 , 70568 , 8724 , 71764 , 70229 , 70216 , 71308

## Material Info

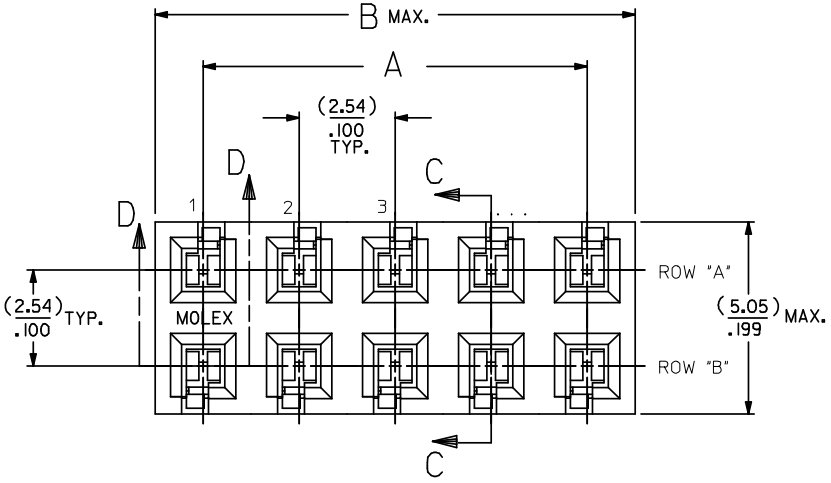
| | |
|---|---|
| Old Part Number | A-71850-0136 |

## Reference - Drawing Numbers

| | |
|---|---|
| Packaging Specification | PK-70873-0660 |
| Product Specification | PS-70181 |
| Sales Drawing | SDA-71850-0*** |

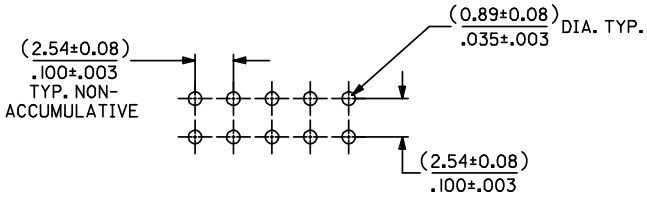
This document was generated on 05/31/2010

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

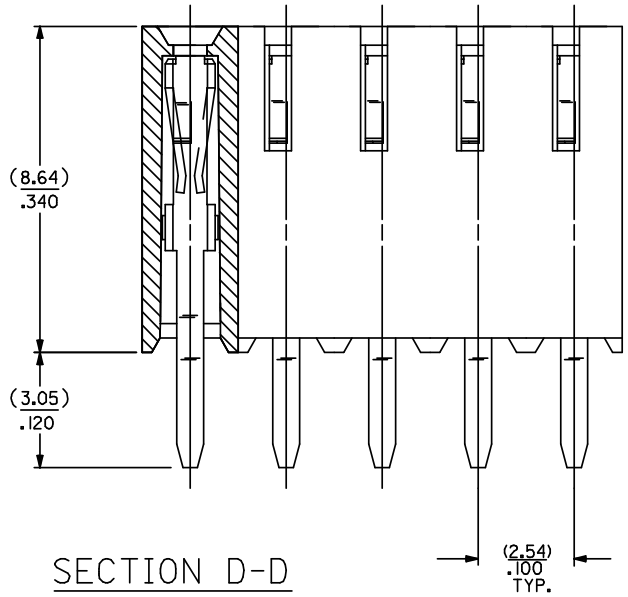



NOTES:

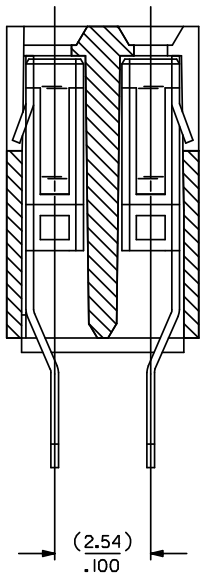
1. HOUSING MATERIAL: GLASS FILLED LIQUID CRYSTAL POLYMER, UL 94V-0, COLOR: BLACK. TERMINAL MATERIAL: PHOSPHOR BRONZE
2. FINISHES: SEE CHART SHEET 2.
3. REFER TO PRODUCT SPECIFICATION PS-70181.
4. PACKAGING IN TRAYS PER PK-70873-0660.
5. SEE SHEET 2 FOR CIRCUIT SIZES AND OVERALL DIMENSIONS.
6. RECOMMENDED PCB THICKNESS (1.37-1.80)/.054-.071.
7. PART COMPLIES WITH CLASS C REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.




RECOMMENDED P.C. BOARD HOLE LAYOUT
SCALE 4:1




SECTION D-D




SECTION C-C

| | | |
|---|---|---|
| REMOVE 71850-0232 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) |
| EC NO: UCP2009-0115 2008/07/22 | ▼=0 | mm / INCH |
| DRWN:GAVERILL 2008/07/25 | ▽(C)=0 | 4 PLACES ± --- / ± --- |
| CH'KD:MKIPPER 2008/07/28 | | 3 PLACES ± --- / ± .005 |
| APPR:FSMITH | | 2 PLACES ± 0.13 / ± .010 |
| DESCRIPTION | | 1 PLACE ± 0.25 / ± --- |
| E2 | | ANGULAR ±1/2° |
| REV | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |

| | | | |
|---|---|---|---|
| DIMENSION STYLE: MM/IN | SCALE | DESIGN UNITS: INCH | THIRD ANGLE PROJECTION |
| DRAWN BY: SKL DATE: 1988/02/29 | TITLE: SALES VERTICAL MOUNT DUAL ROW HIGH TEMP .100 X .100 PC GRID | | |
| CHECKED BY: MJM DATE: 1988/02/29 | | | |
| APPROVED BY: WAZ DATE: 1988/02/29 | molex MOLEX INCORPORATED | | |
| MATERIAL NO.: SEE TABLE | DOCUMENT NO.: SDA-71850-0*** | SHEET NO.: 1 OF 2 | |
| SIZE: C | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |

| CKT. SIZE | | TERMINAL: 70172-0004 PLATING: TIN | | | TERMINAL: 70172-0006 PLATING: 15 GOLD | | | TERMINAL: 70172-0008 PLATING: 30 GOLD | | | DIM."A" | | DIM."B" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PER ROW | TOTAL | EDP NO | ENG NO | RELEASED FOR MANUFACTURING | EDP NO | ENG NO | RELEASED FOR MANUFACTURING | EDP NO | ENG NO | RELEASED FOR MANUFACTURING | MM | INCH | MM | INCH | MM | INCH |
| 2 | 4 | 15-44-6804 | A-71850-0065 | | 15-44-5804 | A-71850-0129 | | 15-44-5104 | A-71850-0193 | | 2,54 | .100 | 5,05 | .199 | | |
| 3 | 6 | 15-44-6806 | A-71850-0066 | | 15-44-5806 | A-71850-0130 | | 15-44-5106 | A-71850-0194 | | 5,08 | .200 | 7,59 | .299 | | |
| 4 | 8 | 15-44-6808 | A-71850-0067 | | 15-44-5808 | A-71850-0131 | | 15-44-5108 | A-71850-0195 | | 7,62 | .300 | 10,13 | .399 | | |
| 5 | 10 | 15-44-6810 | A-71850-0068 | | 15-44-5810 | A-71850-0132 | | 15-44-5110 | A-71850-0196 | | 10,16 | .400 | 12,67 | .499 | | |
| 6 | 12 | 15-44-6812 | A-71850-0069 | | 15-44-5812 | A-71850-0133 | | 15-44-5112 | A-71850-0197 | | 12,70 | .500 | 15,21 | .599 | | |
| 7 | 14 | 15-44-6814 | A-71850-0070 | | 15-44-5814 | A-71850-0134 | | 15-44-5114 | A-71850-0198 | | 15,24 | .600 | 17,75 | .699 | | |
| 8 | 16 | 15-44-6816 | A-71850-0071 | | 15-44-5816 | A-71850-0135 | | 15-44-5116 | A-71850-0199 | | 17,78 | .700 | 20,29 | .799 | | |
| 9 | 18 | 15-44-6818 | A-71850-0072 | | 15-44-5818 | A-71850-0136 | | 15-44-5118 | A-71850-0200 | | 20,32 | .800 | 22,83 | .899 | | |
| 10 | 20 | 15-44-6820 | A-71850-0073 | | 15-44-5820 | A-71850-0137 | | 15-44-5120 | A-71850-0201 | | 22,86 | .900 | 25,37 | .999 | | |
| 11 | 22 | 15-44-6822 | A-71850-0074 | | 15-44-5822 | A-71850-0138 | | 15-44-5122 | A-71850-0202 | | 25,40 | 1.000 | 27,91 | 1.099 | | |
| 12 | 24 | 15-44-6824 | A-71850-0075 | | 15-44-5824 | A-71850-0139 | | 15-44-5124 | A-71850-0203 | | 27,94 | 1.100 | 30,45 | 1.199 | | |
| 13 | 26 | 15-44-6826 | A-71850-0076 | | 15-44-5826 | A-71850-0140 | | 15-44-5126 | A-71850-0204 | | 30,48 | 1.200 | 32,99 | 1.299 | | |
| 14 | 28 | 15-44-6828 | A-71850-0077 | | 15-44-5828 | A-71850-0141 | | 15-44-5128 | A-71850-0205 | | 33,02 | 1.300 | 35,53 | 1.399 | | |
| 15 | 30 | 15-44-6830 | A-71850-0078 | | 15-44-5830 | A-71850-0142 | | 15-44-5130 | A-71850-0206 | | 35,56 | 1.400 | 38,07 | 1.499 | | |
| 16 | 32 | 15-44-6832 | A-71850-0079 | | 15-44-5832 | A-71850-0143 | | 15-44-5132 | A-71850-0207 | | 38,10 | 1.500 | 40,61 | 1.599 | | |
| 17 | 34 | 15-44-6834 | A-71850-0080 | | 15-44-5834 | A-71850-0144 | | 15-44-5134 | A-71850-0208 | | 40,64 | 1.600 | 43,15 | 1.699 | | |
| 18 | 36 | 15-44-6836 | A-71850-0081 | | 15-44-5836 | A-71850-0145 | | 15-44-5136 | A-71850-0209 | | 43,18 | 1.700 | 45,69 | 1.799 | | |
| 19 | 38 | 15-44-6838 | A-71850-0082 | | 15-44-5838 | A-71850-0146 | | 15-44-5138 | A-71850-0210 | | 45,72 | 1.800 | 48,23 | 1.899 | | |
| 20 | 40 | 15-44-6840 | A-71850-0083 | | 15-44-5840 | A-71850-0147 | | 15-44-5140 | A-71850-0211 | | 48,26 | 1.900 | 50,77 | 1.999 | | |
| 21 | 42 | 15-44-6842 | A-71850-0084 | | 15-44-5842 | A-71850-0148 | | 15-44-5142 | A-71850-0212 | | 50,80 | 2.000 | 53,31 | 2.099 | | |
| 22 | 44 | 15-44-6844 | A-71850-0085 | | 15-44-5844 | A-71850-0149 | | 15-44-5144 | A-71850-0213 | | 53,34 | 2.100 | 55,85 | 2.199 | | |
| 23 | 46 | 15-44-6846 | A-71850-0086 | | 15-44-5846 | A-71850-0150 | | 15-44-5146 | A-71850-0214 | | 55,88 | 2.200 | 58,39 | 2.299 | | |
| 24 | 48 | 15-44-6848 | A-71850-0087 | | 15-44-5848 | A-71850-0151 | | 15-44-5148 | A-71850-0215 | | 58,42 | 2.300 | 60,93 | 2.399 | | |
| 25 | 50 | 15-44-6850 | A-71850-0088 | | 15-44-5850 | A-71850-0152 | | 15-44-5150 | A-71850-0216 | | 60,96 | 2.400 | 63,47 | 2.499 | | |
| 26 | 52 | 15-44-6852 | A-71850-0089 | | 15-44-5852 | A-71850-0153 | | 15-44-5152 | A-71850-0217 | | 63,50 | 2.500 | 66,01 | 2.599 | | |
| 27 | 54 | 15-44-6854 | A-71850-0090 | | 15-44-5854 | A-71850-0154 | | 15-44-5154 | A-71850-0218 | | 66,04 | 2.600 | 68,55 | 2.699 | | |
| 28 | 56 | 15-44-6856 | A-71850-0091 | | 15-44-5856 | A-71850-0155 | | 15-44-5156 | A-71850-0219 | | 68,58 | 2.700 | 71,09 | 2.799 | | |
| 29 | 58 | 15-44-6858 | A-71850-0092 | | 15-44-5858 | A-71850-0156 | | 15-44-5158 | A-71850-0220 | | 71,12 | 2.800 | 73,63 | 2.899 | | |
| 30 | 60 | 15-44-6860 | A-71850-0093 | | 15-44-5860 | A-71850-0157 | | 15-44-5160 | A-71850-0221 | | 73,66 | 2.900 | 76,17 | 2.999 | | |
| 31 | 62 | 15-44-6862 | A-71850-0094 | | 15-44-5862 | A-71850-0158 | | 15-44-5162 | A-71850-0222 | | 76,20 | 3.000 | 78,71 | 3.099 | | |
| 32 | 64 | 15-44-6864 | A-71850-0095 | | 15-44-5864 | A-71850-0159 | | 15-44-5164 | A-71850-0223 | | 78,74 | 3.100 | 81,25 | 3.199 | | |
| 33 | 66 | 15-44-6866 | A-71850-0096 | | 15-44-5866 | A-71850-0160 | | 15-44-5166 | A-71850-0224 | | 81,28 | 3.200 | 83,79 | 3.299 | | |
| 34 | 68 | 15-44-6868 | A-71850-0097 | | 15-44-5868 | A-71850-0161 | | 15-44-5168 | A-71850-0225 | | 83,82 | 3.300 | 86,33 | 3.399 | | |
| 35 | 70 | 15-44-6870 | A-71850-0098 | | 15-44-5870 | A-71850-0162 | | 15-44-5170 | A-71850-0226 | | 86,36 | 3.400 | 88,87 | 3.499 | | |
| 36 | 72 | 15-44-6872 | A-71850-0099 | | 15-44-5872 | A-71850-0163 | | 15-44-5172 | A-71850-0227 | | 88,90 | 3.500 | 91,41 | 3.599 | | |
| 37 | 74 | 15-44-6874 | A-71850-0100 | | 15-44-5874 | A-71850-0TIN | | 15-44-5174 | A-71850-0228 | | 91,44 | 3.600 | 93,95 | 3.699 | | |
| 38 | 76 | 15-44-6876 | A-71850-0101 | | 15-44-5876 | A-71850-0165 | | 15-44-5176 | A-71850-0229 | | 93,98 | 3.700 | 96,49 | 3.799 | | |
| 39 | 78 | 15-44-6878 | A-71850-0102 | | 15-44-5878 | A-71850-0166 | | 15-44-5178 | A-71850-0230 | | 96,52 | 3.800 | 99,03 | 3.899 | | |
| 40 | 80 | 15-44-6880 | A-71850-0103 | | 15-44-5880 | A-71850-0167 | | 15-44-5180 | A-71850-0231 | | 99,06 | 3.900 | 101,57 | 3.999 | | |

PLATING PER ES-88-***
TIN - (3.81 MICROMETERS)/150 MICROINCHES MINIMUM TIN OVERALL OVER NICKEL UNDERPLATE OVERALL.
15 GOLD - (0.38 MICROMETERS)/15 MICROINCHES MINIMUM GOLD PLATE IN SELECT AREA, (1.90 MICROMETERS)/75 MICROINCHES MINIMUM TIN IN SELECT AREA OVER NICKEL UNDERPLATE OVERALL.
30 GOLD - (0.76 MICROMETERS)/30 MICROINCHES MINIMUM GOLD PLATE IN SELECT AREA, (1.90 MICROMETERS)/75 MICROINCHES MINIMUM TIN IN SELECT AREA OVER NICKEL UNDERPLATE OVERALL.

REMOVE 71850-0232
EC NO: UCP2009-0115 2008/07/22
DRWN:GAVERILL 2008/07/25
CH'KD:MKIPPER
APPR:FSMITH 2008/07/28
DESCRIPTION
E2
REV

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± .005 |
| 2 PLACES | ± 0.13 | ± .010 |
| 1 PLACE | ± 0.25 | ± --- |
| ANGULAR ±1/2° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 1:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

| | | |
|---|---|---|
| DRAWN BY | SKL | DATE 1988/02/29 |
| CHECKED BY | MJM | DATE 1988/02/29 |
| APPROVED BY | WAZ | DATE 1988/02/29 |

TITLE: SALES VERTICAL MOUNT DUAL ROW HIGH TEMP .100 X .100 PC GRID

molex MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SDA-71850-0***
SHEET NO.: 2 OF 2

SIZE C

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