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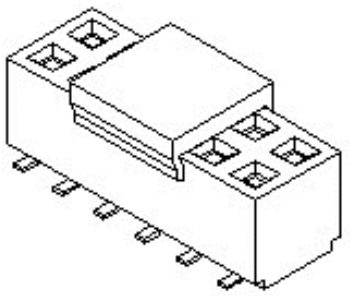
# PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

**Part Number:** 0873812217
**Status:** Active
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.76µm (30µ") Gold (Au) Plating, without Cap, with Locating Peg, 22 Circuits, Leadfree



*Series image - Reference only*

**Documents:**

3D Model
Drawing (PDF)
Product Specification PS-87380-002 (PDF)
RoHS Certificate of Compliance (PDF)

## Agency Certification

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

## General

| | |
|---|---|
| Product Family | PCB Receptacles |
| Series | 87381 |
| Application | Board-to-Board |
| Obsolete Date | 2006/06/01 |
| Product Literature Order No | 987650-1991 |
| Product Name | Milli-Grid™ |

## Physical

| | |
|---|---|
| Circuits (Loaded) | 22 |
| Circuits (maximum) | 22 |
| Color - Resin | Black |
| Durability (mating cycles max) | 25 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Lock to Mating Part | None |
| Material - Metal | Phosphor Bronze |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PCB Locator | Yes |
| PCB Retention | None |
| Packaging Type | Tube |
| Pitch - Mating Interface (in) | 0.079 In |
| Pitch - Mating Interface (mm) | 2.00 mm |
| Pitch - Term. Interface (in) | 0.079 In |
| Pitch - Term. Interface (mm) | 2.00 mm |
| Plating min: Mating (µin) | 30 |
| Plating min: Mating (µm) | 0.76 |
| Plating min: Termination (µin) | 50 |
| Plating min: Termination (µm) | 1.27 |
| Polarized to PCB | Yes |
| Surface Mount Compatible (SMC) | N/A |
| Temperature Range - Operating | -55°C to +105°C |
| Termination Interface: Style | Surface Mount |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 1.9A |
| Voltage - Maximum | 125V |

## Material Info

**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**
87381Series

**Mates With**
87758 Vertical, Through Hole, Stackable PCB Header, 87759 Vertical, Surface Mount, Stackable PCB Header, 87760 Right Angle, Through Hole, Stackable PCB Header, 87831 Vertical, Through Hole PCB Header, 87832 Vertical, Surface Mount PCB

## Reference - Drawing Numbers

| | |
|---|---|
| Product Specification | PS-87380-002 |
| Sales Drawing | SD-87381-**** |

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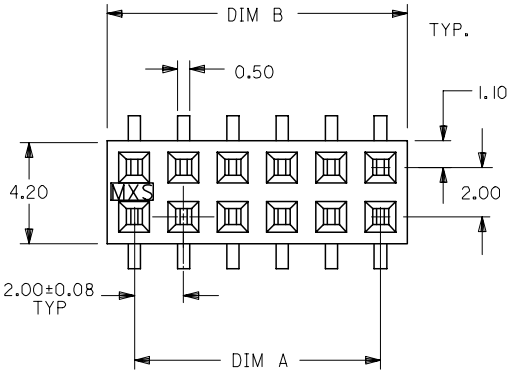
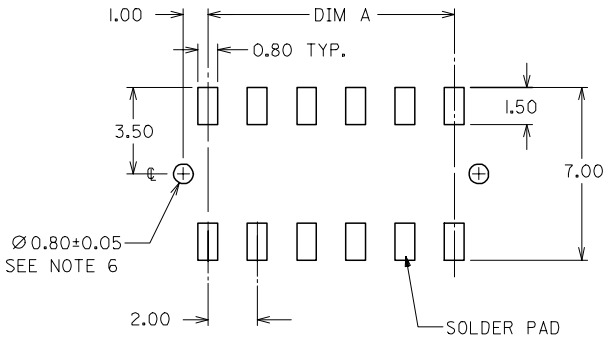
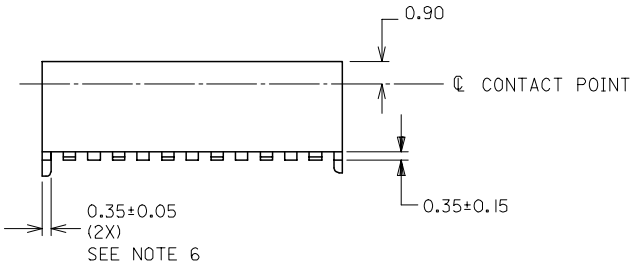
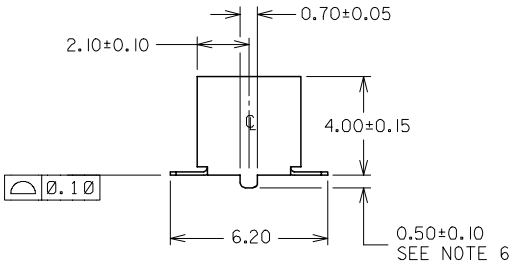



RECOMMENDED PCB LAYOUT



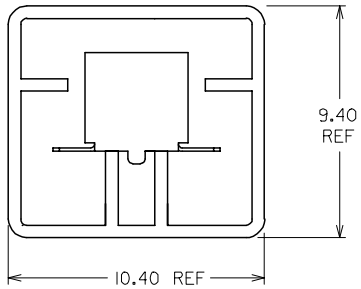




| PART NUMBER | CKT. SIZE | DIM A | DIM B |
|---|---|---|---|
| 87381-06** | 6 | 4.00 | 6.00 |
| 87381-08** | 8 | 6.00 | 8.00 |
| 87381-10** | 10 | 8.00 | 10.00 |
| 87381-12** | 12 | 10.00 | 12.00 |
| 87381-14** | 14 | 12.00 | 14.00 |
| 87381-16** | 16 | 14.00 | 16.00 |
| 87381-18** | 18 | 16.00 | 18.00 |
| 87381-20** | 20 | 18.00 | 20.00 |
| 87381-22** | 22 | 20.00 | 22.00 |
| 87381-24** | 24 | 22.00 | 24.00 |
| 87381-26** | 26 | 24.00 | 26.00 |
| 87381-28** | 28 | 26.00 | 28.00 |
| 87381-30** | 30 | 28.00 | 30.00 |
| 87381-32** | 32 | 30.00 | 32.00 |
| 87381-34** | 34 | 32.00 | 34.00 |
| 87381-36** | 36 | 34.00 | 36.00 |
| 87381-38** | 38 | 36.00 | 38.00 |
| 87381-40** | 40 | 38.00 | 40.00 |
| 87381-42** | 42 | 40.00 | 42.00 |
| 87381-44** | 44 | 42.00 | 44.00 |
| 87381-46** | 46 | 44.00 | 46.00 |
| 87381-48** | 48 | 46.00 | 48.00 |
| 87381-50** | 50 | 48.00 | 50.00 |

PART NO. LEGEND

87381 - * * * *

- CIRCUIT SIZE
- PLATING: 7 / 8 (SEE NOTE 1)
- PEG OPTION: 0 WITHOUT PEG; 1 WITH PEG




PART IN TUBE

NOTES:

1. PLATING FINISH :
   - 7 - 0.76um MIN. GOLD IN CONTACT AREA
     1.27um MIN. TIN IN SOLDER TAIL AREA
     BOTH OVER 1.27um MIN NICKEL OVERALL
   - 8 - 0.38um MIN. GOLD IN CONTACT AREA
     1.27um MIN. TIN IN SOLDER TAIL AREA
     BOTH OVER 1.27um MIN NICKEL OVERALL
2. 12 CKT SIZE SHOWN FOR ILLUSTRATION ONLY. SEE CHART FOR ALL AVAILABLE PART SIZES
3. PRODUCT SPECIFICATION PS-87380 APPLIES
4. COPLANARITY OF SOLDER TAILS ARE TO BE MEAURED BY RESTING THE PART ON A FLAT GAUGE SURFACE
5. OTHER PLATING OPTIONS AVAILABLE. PLEASE CONTACT FACTORY
6. PEG AND PCB HOLE OPTIONAL. SEE PART LEGEND FOR PART CONFIGURATON
7. PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.

| REV | DESCRIPTION | APPR:MLONG | CHKD:ATSEE | DRWN:SKANG | EC NO: S2008-0281 |
|---|---|---|---|---|---|
| E1 | ADD NOTE 7. | 2007/11/01 | 2007/11/01 | 2007/10/31 | |

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± 0.10 | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ± 3 ° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

| | | DATE |
|---|---|---|
| DRAWN BY | TAY | 1993/01/21 |
| CHECKED BY | SKTOH | 1993/01/26 |
| APPROVED BY | RWONG | 1993/01/27 |

TITLE: MGRID 4MM HT., WITH LOC. PEG

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87381-****
SHEET NO.: 1 OF 1
SIZE: A3

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