

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0873812818](#)
Status: **Active**
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.38µm (15µ") Gold (Au) Plating, without Cap, with Locating Peg, 28 Circuits, Leadfree

Documents:

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

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Receptacles
 Series [87381](#)
 Application Board-to-Board
 Product Literature Order No 987650-1991
 Product Name Milli-Grid™

Physical

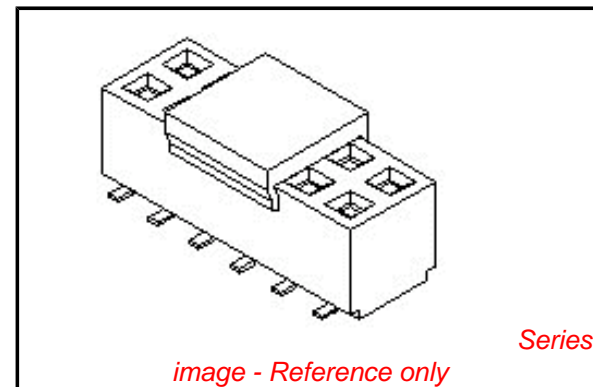
Circuits (Loaded) 28
 Circuits (maximum) 28
 Color - Resin Black
 Durability (mating cycles max) 25
 Flammability 94V-0
 Glow-Wire Compliant No
 Lock to Mating Part None
 Material - Metal Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin-Lead
 Material - Resin High Temperature 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) 15
 Plating min: Mating (µm) 0.38
 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

Solder Process Data

Duration at Max. Process Temperature (seconds) 12
 Lead-free Process Capability Reflow Capable (SMT only)



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Not Reviewed

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

| | |
|---|-----|
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

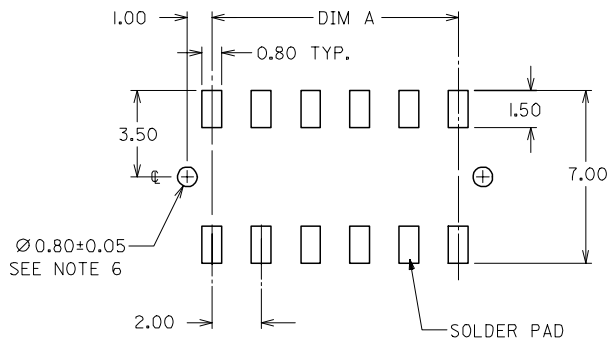
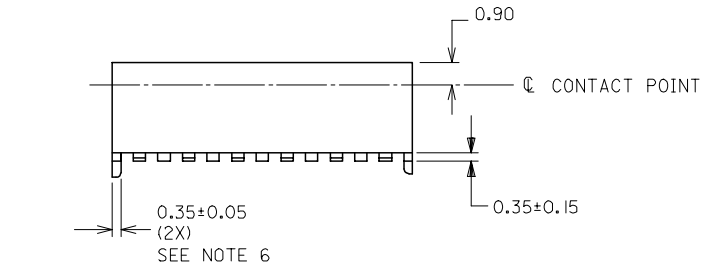
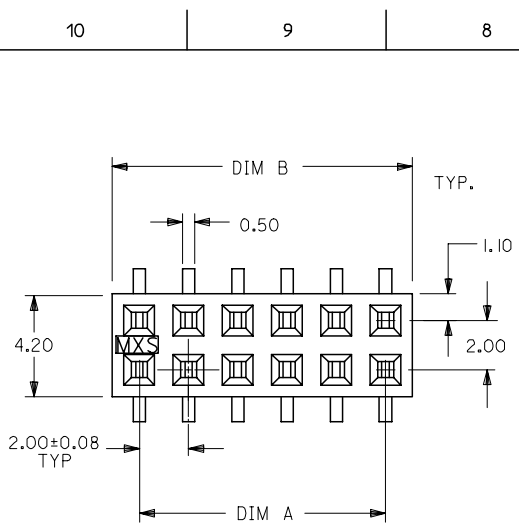
Material Info

Reference - Drawing Numbers

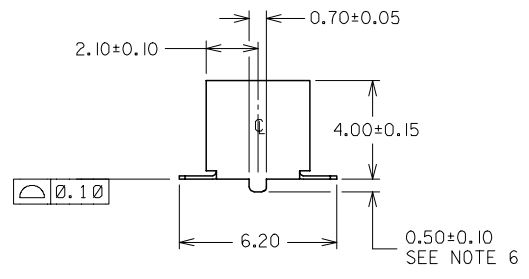
| | |
|-----------------------|---------------|
| Product Specification | PS-87380-002 |
| Sales Drawing | SD-87381-**** |

This document was generated on 03/18/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION



RECOMMENDED PCB LAYOUT

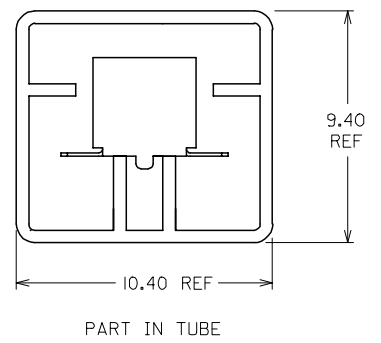
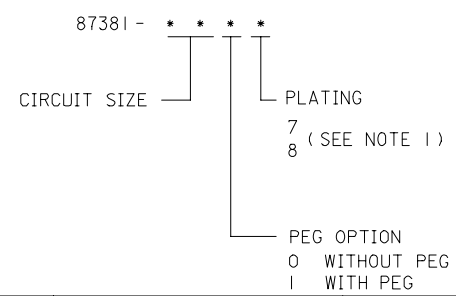


| PART NUMBER | CKT. SIZE | DIM A | DIM B |
|-------------|-----------|-------|-------|
| 87381-06** | 6 | 4.00 | 6.00 |
| 87381-08** | 8 | 6.00 | 8.00 |
| 87381-10** | 10 | 8.00 | 10.00 |
| 87381-12** | 12 | 10.00 | 12.00 |
| 87381-14** | 14 | 12.00 | 14.00 |
| 87381-16** | 16 | 14.00 | 16.00 |
| 87381-18** | 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 |

NOTES:

- 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
- 12 CKT SIZE SHOWN FOR ILLUSTRATION ONLY. SEE CHART FOR ALL AVAILABLE PART SIZES
- PRODUCT SPECIFICATION PS-87380 APPLIES
- COPLANARITY OF SOLDER TAILS ARE TO BE MEASURED BY RESTING THE PART ON A FLAT GAUGE SURFACE
- OTHER PLATING OPTIONS AVAILABLE. PLEASE CONTACT FACTORY
- PEG AND PCB HOLE OPTIONAL. SEE PART LEGEND FOR PART CONFIGURATON
- PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.

PART NO. LEGEND



PART IN TUBE

| ADD NOTE 7. EC NO: S2008-0281 DRWNS:KANG 2007/10/31 CHKD:ATSEE 2007/11/01 APPR:MLONG 2007/11/01 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | | | | | | | | | | | | | | | | |
|---|-------------------------------|--|-------|----------------------------|--------------|--------------------|------------------------|------------------------|-----------|----------|-------|-------|----------|--------|-------|---------|-------|-------|-----------------|--|--------------------|--|--|--|--|
| | | <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr><td>4 PLACES</td><td>± ---</td><td>± ---</td></tr> <tr><td>3 PLACES</td><td>± ---</td><td>± ---</td></tr> <tr><td>2 PLACES</td><td>± 0.10</td><td>± ---</td></tr> <tr><td>1 PLACE</td><td>± ---</td><td>± ---</td></tr> </tbody> </table> | | | mm | INCH | 4 PLACES | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± 0.10 | ± --- | 1 PLACE | ± --- | ± --- | DRAWN BY TAY | | DATE 1993/01/21 | TITLE MGRID 4MM HT., WITH LOC. PEG | | | |
| | | | mm | INCH | | | | | | | | | | | | | | | | | | | | | |
| | | 4 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | |
| 3 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± 0.10 | ± --- | | | | | | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | | |
| ANGULAR ± 3 ° | | CHECKED BY SKTOH | | DATE 1993/01/26 | | | | | | | | | | | | | | | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | APPROVED BY RWONG | | DATE 1993/01/27 | MATERIAL NO. | | DOCUMENT NO. | | SHEET NO. | | | | | | | | | | | | | | | | |
| SIZE A3 | | SEE TABLE | | SD-87381-**** | | MOLEX INCORPORATED | | 1 OF 1 | | | | | | | | | | | | | | | | | |