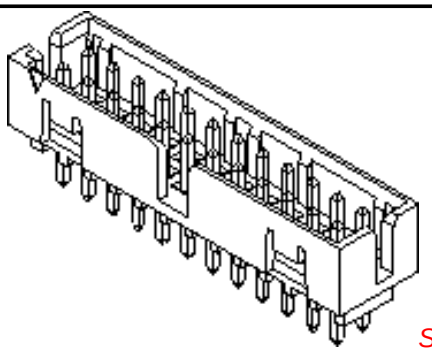
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This document was generated on 05/26/2010

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

**Part Number:** 0878313435
**Status:** Active
**Overview:** milligrid
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 34 Circuits, 0.76µm (15µ") Gold (Au) Plating, PCB Locator, Center Polarization Slot, with Locking Windows, Tube



*Series image - Reference only*

**Documents:**
3D Model
Drawing (PDF)
RoHS Certificate of Compliance (PDF)

## Agency Certification

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

## General

| | |
|---|---|
| Product Family | PCB Headers |
| Series | 87831 |
| Application | Wire-to-Board |
| Comments | Contact Molex for application in automotive industry |
| Overview | milligrid |
| Product Name | Milli-Grid™ |

## Physical

| | |
|---|---|
| Breakaway | No |
| Circuits (Loaded) | 34 |
| Circuits (maximum) | 34 |
| Color - Resin | Black |
| First Mate / Last Break | No |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | Yes |
| Material - Metal | Brass, Phosphor Bronze |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | Nylon |
| Number of Rows | 2 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.098 In |
| PC Tail Length (mm) | 2.50 mm |
| PCB Locator | Yes |
| PCB Retention | None |
| PCB Thickness Recommended (in) | 0.062 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| 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) | 76 |
| Plating min: Termination (µm) | 1.88 |
| Polarized to Mating Part | Side Slots (2) |

**EU RoHS**
**ELV and RoHS Compliant**
**REACH SVHC**
**Contains SVHC: No**
**Halogen-Free Status**
**Not Halogen-Free**

**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**
87831Series

**Mates With**
50394 Wire-to-Board Terminals. 51110 Wire-to-Board Crimp Housing. 87568 Wire-to-Board IDT Housings. 79107 Board-to-Board Top Entry Through Hole Receptacle. 79108 Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

| | |
|---|---|
| Polarized to PCB | Yes |
| Shrouded | Fully |
| Stackable | No |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -55°C to +105°C |
| Termination Interface: Style | Through Hole |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 2A |
| Voltage - Maximum | 125V |

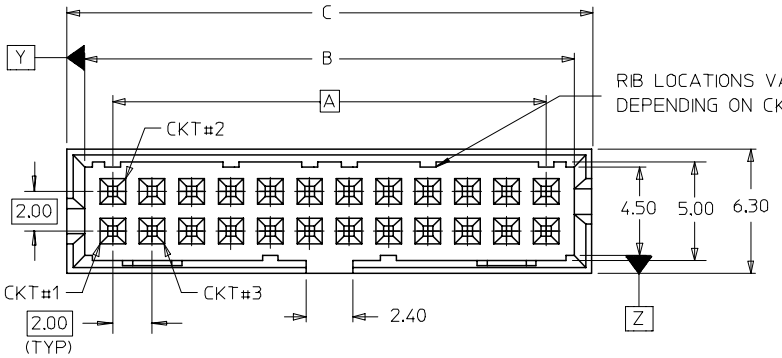
## Solder Process Data

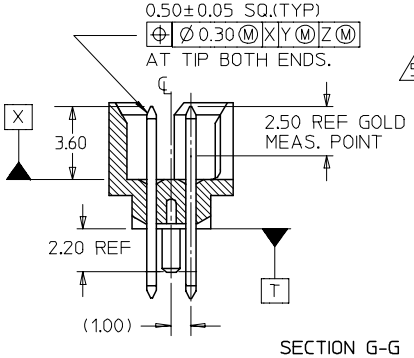
| | |
|---|---|
| Duration at Max. Process Temperature (seconds) | 10 |
| Lead-free Process Capability | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

## Material Info

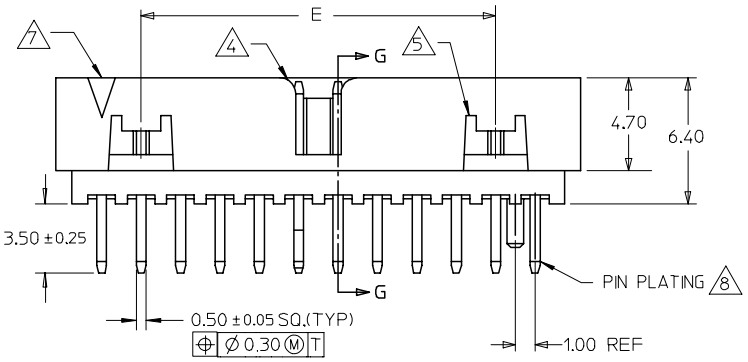
## Reference - Drawing Numbers

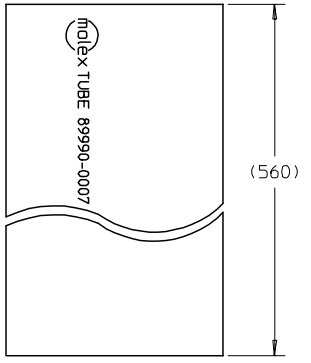
| | |
|---|---|
| Sales Drawing | SD-87831-016 |



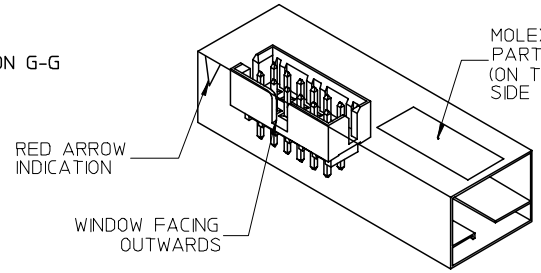




| P/N IN TUBE | CKT SIZE | DIMENSION | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| 87831-1035 | 10 | 8.00 | 10.85 | 12.65 | 11.00 | ——— |
| 87831-1435 | 14 | 12.00 | 14.85 | 16.65 | 15.00 | 8.00 |
| 87831-1635 | 16 | 14.00 | 16.85 | 18.65 | 17.00 | 10.00 |
| 87831-2035 | 20 | 18.00 | 20.85 | 22.65 | 21.00 | 14.00 |
| 87831-2435 | 24 | 22.00 | 24.85 | 26.65 | 25.00 | 18.00 |
| 87831-3035 | 30 | 28.00 | 30.85 | 32.65 | 31.00 | 24.00 |
| 87831-3435 | 34 | 32.00 | 34.85 | 36.65 | 35.00 | 28..00 |
| 87831-4435 | 44 | 42.00 | 44.85 | 46.65 | 45.00 | 38.00 |
| 87831-5035 | 50 | 48.00 | 50.85 | 52.65 | 51.00 | 44.00 |

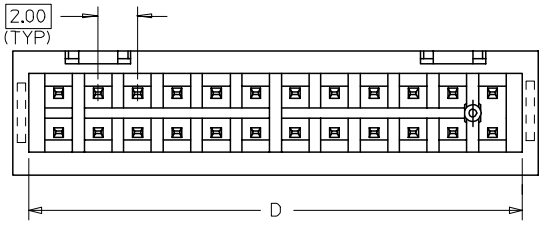


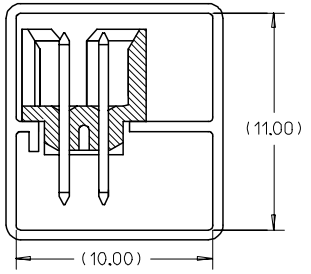




SECTION G-G



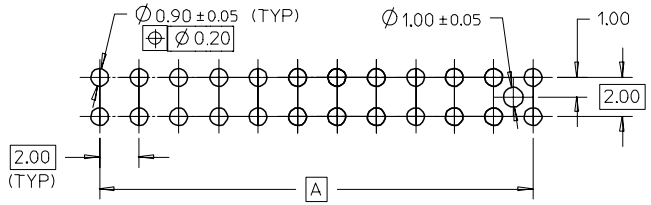

REF : ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)




REF : ORIENTATION OF PART IN TUBE

NOTES:
1. FOR ILLUSTRATION PURPOSES, 24 CKT SIZE WAFER IS SHOWN.
2. MATERIAL :
   HOUSING : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.
   PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
5. NO SIDE LOCKING SLOT FOR CKT SIZE 10.
6. FOR RIB LOCATION SEE DWG. NO. EC-87330-**04.
7. CKT 6 HAS NO IDENTIFICATION TAG.
8. PLATING OPTION :
   0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
9. THIS HEADER MATES WITH MOLEX :
   a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
   b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
10. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.




RECOMMENDED PCB PATTERN
(FOR BOARD THK OF 2.95±0.10)

ADD MOIST BAG NOTE
EC NO: S2007-0892 2007/05/04 DESCRIPTION
DRWN:GMENARLY 2007/05/04
CHKD:SKANG
APPR:MLONG 2007/05/07
A5 REV

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± 0.2 | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ± 3 ° | | |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

DRAWN BY: ATSEE DATE: 2003/10/06
CHECKED BY: KCLING DATE: 2003/11/07
APPROVED BY: SKTOH DATE: 2003/11/07
MATERIAL NO.: SEE TABLE

TITLE: MGRID, SHROUDED HEADER VERTICAL, W/PEG

molex MOLEX INCORPORATED

DOCUMENT NO.: SD-87831-016
SHEET NO.: 1 OF 1

SIZE A3

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