

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878331233](#)
Status: **Active**
Overview: [milligrd](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 12 Circuits, 0.38µm (15µ") Gold (Au) Plating, without PCB Locator, with Locking Window, without Center Polarization Slot, Tube

Documents:

[3D Model](#) [Product Specification PS-87831-027 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

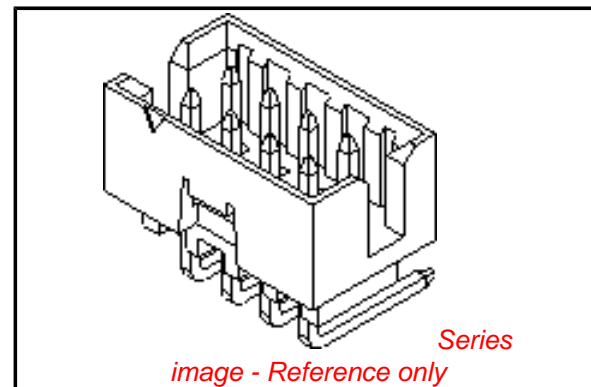
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [87833](#)
 Application Wire-to-Board
 Comments Contact Molex for application in automotive industry
 Overview [milligrd](#)
 Product Name Milli-Grid™

Physical

Breakaway No
 Circuits (Loaded) 12
 Circuits (maximum) 12
 Color - Resin Black
 Durability (mating cycles max) 100
 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 Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 2
 Orientation Right Angle
 PC Tail Length (in) 0.085 In
 PC Tail Length (mm) 2.16 mm
 PCB Locator No
 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) 15
 Plating min: Mating (µm) 0.38
 Plating min: Termination (µin) 75
 Plating min: Termination (µm) 1.88



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

[87833Series](#)

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

Electrical

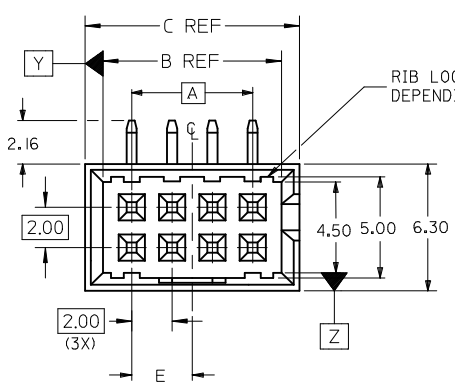
| | |
|-------------------------------|------|
| Current - Maximum per Contact | 2A |
| Voltage - Maximum | 125V |

Material Info**Reference - Drawing Numbers**

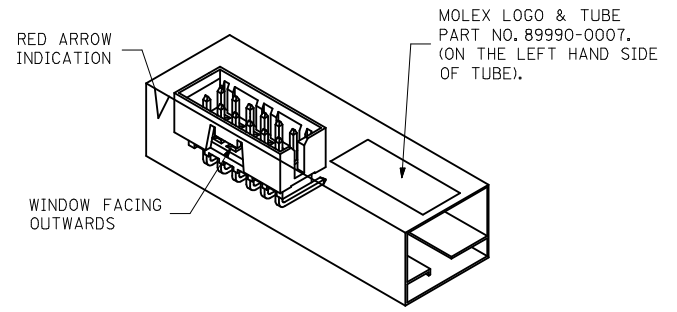
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|-----------------------|--------------|
| Product Specification | PS-87831-027 |
| Sales Drawing | SD-87833-037 |

This document was generated on 05/26/2010

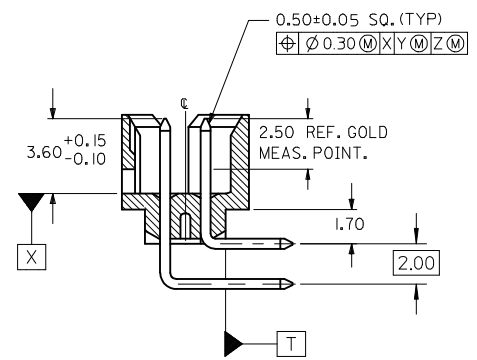
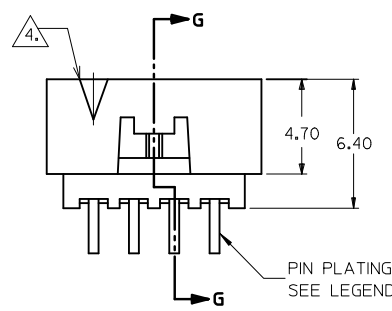
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| PART NO. | CKT SIZE | DIMENSION | | | | |
|------------|----------|-----------|-------|-------|-------|------|
| | | A | B | C | D | E |
| 87833-043* | 4 | 2.00 | 4.85 | 6.65 | 5.00 | 1.00 |
| 87833-063* | 6 | 4.00 | 6.85 | 8.65 | 7.00 | 2.00 |
| 87833-083* | 8 | 6.00 | 8.85 | 10.65 | 9.00 | 3.00 |
| 87833-103* | 10 | 8.00 | 10.85 | 12.65 | 11.00 | 4.00 |
| 87833-123* | 12 | 10.00 | 12.85 | 14.65 | 13.00 | 5.00 |



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



SECTION G-G

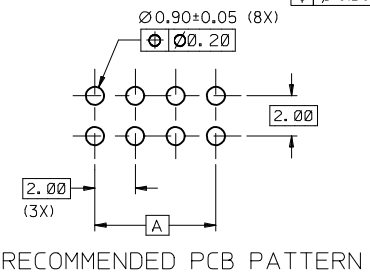
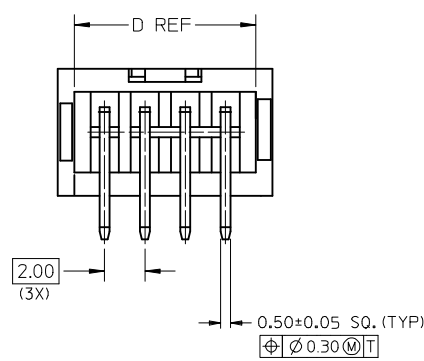
NOTES:

- FOR ILLUSTRATION PURPOSES, 8 CKT. SIZE WAFER IS SHOWN.
- MATERIAL:
HOUSING: 30% GF, NYLON 46
UL 94v-0, COLOR BLACK
PIN : 0.50MM SQ.PHOSPHOR BRONZE
- PIN PUSHOUT FORCE 0.91KG MIN.
▲ CKT 4 & 6 HAS NO IDENTIFICATION TAG.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- THIS HEADER MATES WITH MOLEX:
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
- PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
- NO CENTRE POLARIZATION SLOT FOR CKT 4 AND 6.

PART NUMBER LEGEND

87833 - ** 3 *
CKT SIZE PLATING OPTION

- 3 - 0.38um/15uIn GOLD IN CONTACT AREA AND 1.88um/75uIn MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uIn MIN. NICKEL OVERALL.
- 4 - 0.76um/30uIn GOLD IN CONTACT AREA AND 1.88um/75uIn MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uIn MIN. NICKEL OVERALL.



RECOMMENDED PCB PATTERN

| | | | | | | | | | | |
|--|-------------------------------|---------------------------------------|-------------|-----------------------------------|----------------------------------|--------------|--|------------------------|--|--|
| ADD IN NOTES NO. 8 EC NO: S2009-0964 DRWN: YMC HONG CHKD: SKANG APPR: MLONG 2009/07/01 2009/07/08 2009/07/15 | QUALITY SYMBOLS ▽=0 ◁=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | 4 PLACES | ± --- | ± --- | DRAWN BY | DATE | TITLE | | | |
| | | 3 PLACES | ± --- | ± --- | ATSEE | 2004/09/08 | MGRID, SHROUDED HEADER W/LOCKING FEATURE & SINGLE SIDE SLOT, R/A | | | |
| | | 2 PLACES | ± 0.2 | ± --- | CHECKED BY | DATE | | | | |
| 1 PLACE | ± --- | ± --- | KCL ING | 2004/09/23 | MOLEX INCORPORATED | | | | | |
| ANGULAR ± 3 ° | | | APPROVED BY | DATE | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | SKTOH | 2004/09/23 | MATERIAL NO. SEE TABLE | | DOCUMENT NO. SD-87833-037 | SHEET NO. 1 OF 1 | | |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | |