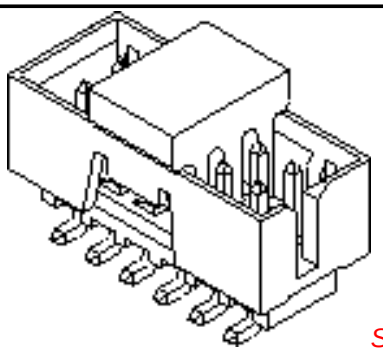
This document was generated on 05/25/2010

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

**Part Number:** 0878320409
**Status:** Active
**Overview:** milligrid
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 4 Circuits, 0.76µm (30µ") Gold (Au) Plating, with Locking Window, Pick-and-Place Cap, without PCB Locator, Tube



*Series image - Reference only*

**Documents:**

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

## Agency Certification

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

## General

| | |
|---|---|
| Product Family | PCB Headers |
| Series | 87832 |
| Application | Wire-to-Board |
| Comments | With Cap\|Contact Molex for application in automotive industry |
| Overview | milligrid |
| Product Name | Milli-Grid™ |

## Physical

| | |
|---|---|
| Breakaway | No |
| Circuits (Loaded) | 4 |
| Circuits (maximum) | 4 |
| Color - Resin | Black |
| First Mate / Last Break | No |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | Yes |
| 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 | Vertical |
| PCB Locator | No |
| 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) | 75 |
| Plating min: Termination (µm) | 1.88 |
| Polarized to Mating Part | Side Slots (2) |
| Polarized to PCB | No |
| Shrouded | Fully |
| Stackable | No |

**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**
87832Series

**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

| | |
|---|---|
| Temperature Range - Operating | -55°C to +105°C |
| Termination Interface: Style | Surface Mount |

## Electrical

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

## Solder Process Data

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

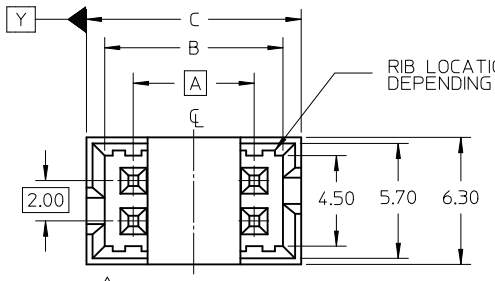
## Material Info

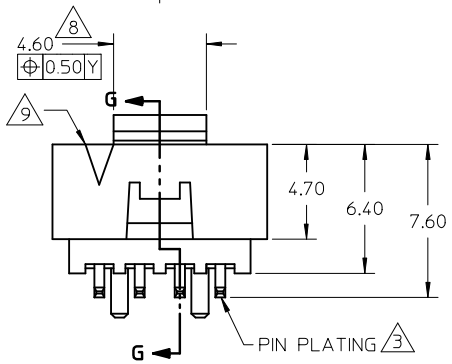
## Reference - Drawing Numbers

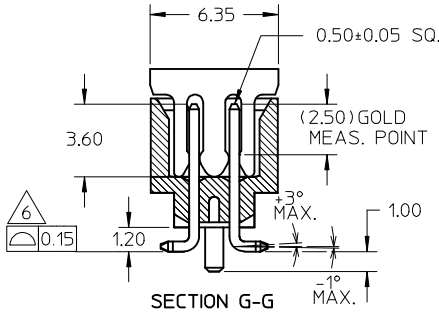
| | |
|---|---|
| Product Specification | PS-87831-027 |
| Sales Drawing | SD-87832-011 |

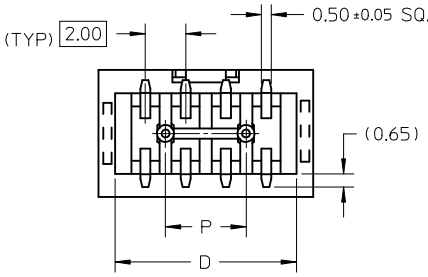
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**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

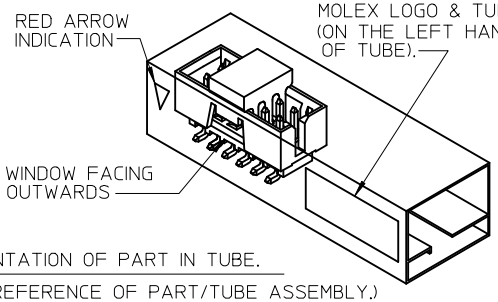
| PEG OPTION | P/N WITH CAP IN TAPE & REEL | P/N WITH CAP IN TUBE | P/N WITHOUT CAP IN TUBE | CKT SIZE | DIMENSION | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | D | P |
| NO | 87832-0407 | 87832-0409 | 87832-0411 | 4 | 2.00 | 4.85 | 6.65 | 5.00 | - |
| YES | 87832-0607 | 87832-0609 | 87832-0611 | 6 | 4.00 | 6.85 | 8.65 | 7.00 | 2.00 |
| YES | 87832-0807 | 87832-0809 | 87832-0811 | 8 | 6.00 | 8.85 | 10.65 | 9.00 | 4.00 |
| YES | 87832-1007 | 87832-1009 | 87832-1011 | 10 | 8.00 | 10.85 | 12.65 | 11.00 | 6.00 |
| YES | 87832-1207 | 87832-1209 | 87832-1211 | 12 | 10.00 | 12.85 | 14.65 | 13.00 | 8.00 |



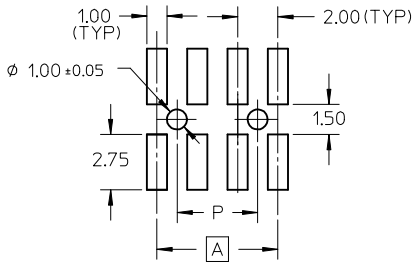




REF : ORIENTATION OF PART IN TUBE.
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY.)




RECOMMENDED PCB PATTERN

NOTES:
1. FOR ILLUSTRATION PURPOSES, 8 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL :
   HOUSING & CAP : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.
   PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PLATING :
   0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
4. PIN PUSHOUT FORCE : 0.91 KG MIN. IN EITHER DIRECTION.
5. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
6. COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
7. BEND DEPRESSION ON SMT TAIL IS ACCEPTACLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF THE TAIL.
8. CAP TO BE POSITION IN THE CENTER OF HEADER FOR PICK AND PLACE.
9. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
10. THIS HEADER MATES WITH MOLEX:
    a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
    b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
11. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.

ADD IN NOTES NO.11
EC NO: S2009-0943 2009/07/01
DRWN:YMCHONG 2009/07/08
CH'KD:SKANG 2009/07/16
APPR:MLONG
DESCRIPTION
REV
A5

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

| | | DATE |
|---|---|---|
| DRAWN BY | ATSEE | 2003/10/15 |
| CHECKED BY | KCLING | 2003/11/07 |
| APPROVED BY | SKTOH | 2003/11/07 |

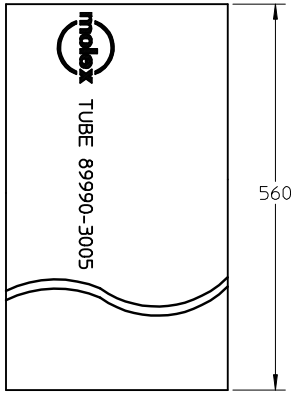
TITLE: MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE IN TUBE AND T&R, SMT

MOLEX INCORPORATED

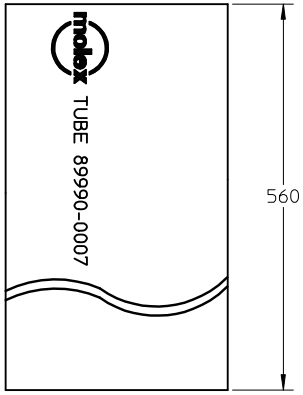
MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87832-011
SHEET NO.: 1 OF 2
SIZE: A3

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

WITH CAP
TUBE PACKAGING

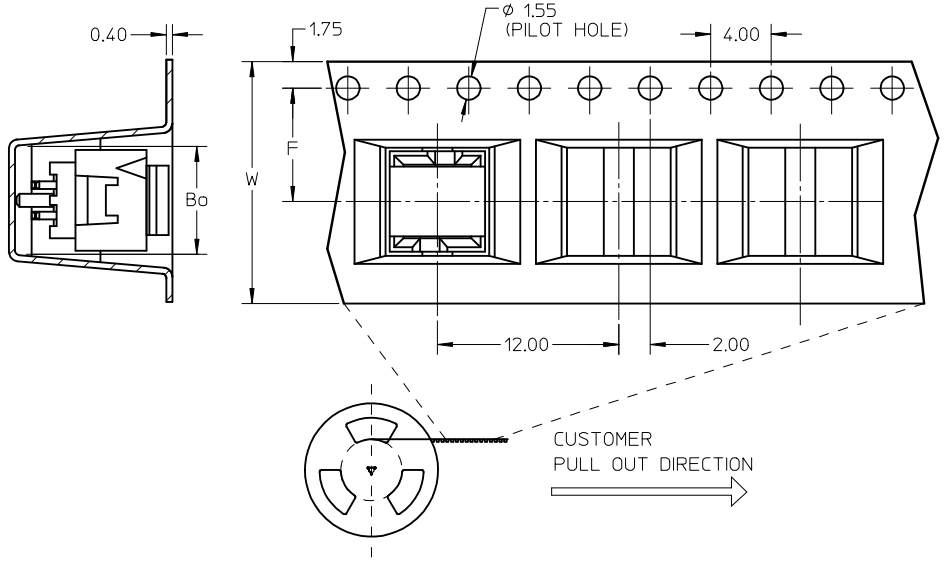


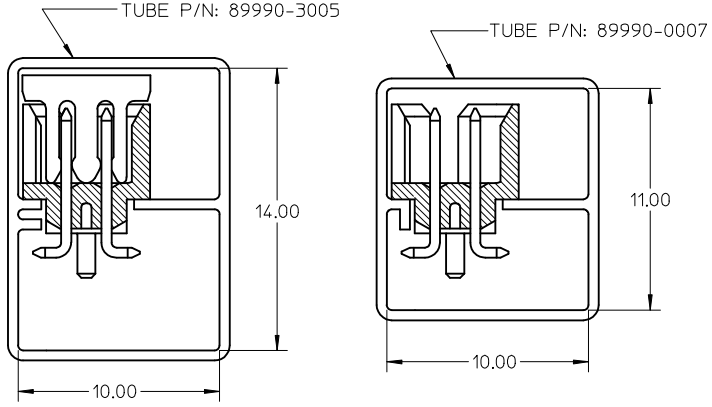

WITHOUT CAP
TUBE PACKAGING

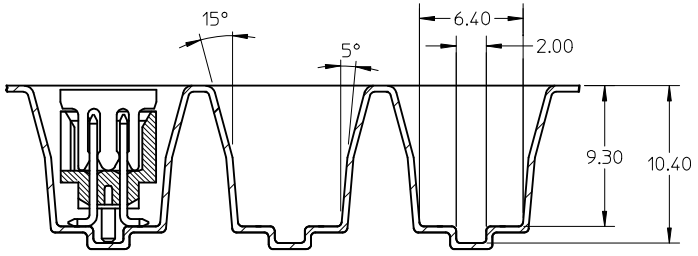



| P/N WITH CAP IN T&R | CKT SIZE | F | Bo | So | W |
|---|---|---|---|---|---|
| 87832-0407 | 04 | 7.50 | 7.15 | - | 16.00 |
| 87832-0607 | 06 | 11.50 | 9.15 | - | 24.00 |
| 87832-0807 | 08 | 11.50 | 11.05 | - | 24.00 |
| 87832-1007 | 10 | 11.50 | 13.05 | - | 24.00 |
| 87832-1207 | 12 | 14.20 | 15.15 | 28.40 | 32.00 |

EMBOSSED CARRIER TAPE 'A'

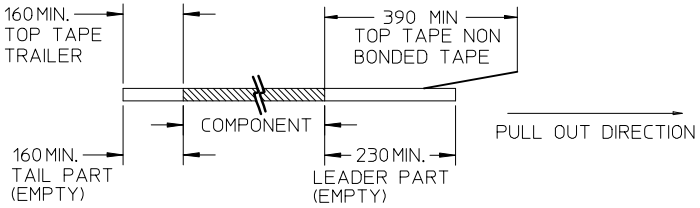



NOTES:

1. LEADER AND TRAILER TAPE




2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)




3. PACKAGING STANDARD IS AS PER EIA-481.

ADD NOTES NO.11 2009/07/01
EC NO: S2009-0943 2009/07/08
DRWN:YMCHONG CHK'D:SKANG APPR:MLONG 2009/07/16
DESCRIPTION
REV
A5

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: 2003/10/15
CHECKED BY: KCLING DATE: 2003/11/07
APPROVED BY: SKTOH DATE: 2003/11/07

TITLE: MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE IN TUBE AND T&R, SMT

molex MOLEX INCORPORATED

MATERIAL NO. SEE TABLE
DOCUMENT NO. SD-87832-011
SHEET NO. 2 OF 2
SIZE A3

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