

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

**Part Number:** [0878326222](#)  
**Status:** **Active**  
**Overview:** milligrid  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 26 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Pick-and-Place Cap, with Side and Center Locking Windows, with Center Polarization Slot, with PCB Locator, Embossed

**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 [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) 26  
 Circuits (maximum) 26  
 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 Yes  
 PCB Retention None  
 Packaging Type Embossed Tape on Reel  
 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  
 Polarized to Mating Part Side Slots (2)  
 Polarized to PCB No  
 Shrouded Fully



image - Reference only

**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](mailto: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

|                               |                 |
|-------------------------------|-----------------|
| Stackable                     | No              |
| 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-87832-006 |

This document was generated on 05/26/2010

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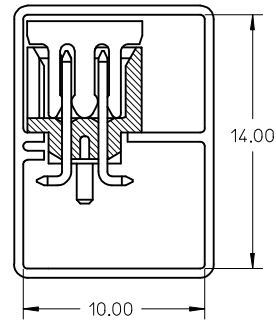
| CKT SIZE | A     | B     | C     | D     | E     | F     |
|----------|-------|-------|-------|-------|-------|-------|
| 4        | 6.65  | 4.85  | 2.00  | ----- | ----- | 5.00  |
| 6        | 8.65  | 6.85  | 4.00  | ----- | 2.00  | 7.00  |
| 8        | 10.65 | 8.85  | 6.00  | ----- | 4.00  | 9.00  |
| 10       | 12.65 | 10.85 | 8.00  | ----- | 6.00  | 11.00 |
| 12       | 14.65 | 12.85 | 10.00 | ----- | 8.00  | 13.00 |
| 14       | 16.65 | 14.85 | 12.00 | 8.00  | 10.00 | 15.00 |
| 16       | 18.65 | 16.85 | 14.00 | 10.00 | 12.00 | 17.00 |
| 18       | 20.65 | 18.85 | 16.00 | 12.00 | 14.00 | 19.00 |
| 20       | 22.65 | 20.85 | 18.00 | 14.00 | 16.00 | 21.00 |
| 22       | 24.65 | 22.85 | 20.00 | 16.00 | 18.00 | 23.00 |
| 24       | 26.65 | 24.85 | 22.00 | 18.00 | 20.00 | 25.00 |
| 26       | 28.65 | 26.85 | 24.00 | 20.00 | 22.00 | 27.00 |
| 28       | 30.65 | 28.85 | 26.00 | 22.00 | 24.00 | 29.00 |
| 30       | 32.65 | 30.85 | 28.00 | 24.00 | 26.00 | 31.00 |
| 32       | 34.65 | 32.85 | 30.00 | 26.00 | 28.00 | 33.00 |
| 34       | 36.65 | 34.85 | 32.00 | 28.00 | 30.00 | 35.00 |
| 36       | 38.65 | 36.85 | 34.00 | 30.00 | 32.00 | 37.00 |
| 38       | 40.65 | 38.85 | 36.00 | 32.00 | 34.00 | 39.00 |
| 40       | 42.65 | 40.85 | 38.00 | 34.00 | 36.00 | 41.00 |
| 42       | 44.65 | 42.85 | 40.00 | 36.00 | 38.00 | 43.00 |
| 44       | 46.65 | 44.85 | 42.00 | 38.00 | 40.00 | 45.00 |
| 46       | 48.65 | 46.85 | 44.00 | 40.00 | 42.00 | 47.00 |
| 48       | 50.65 | 48.85 | 46.00 | 42.00 | 44.00 | 49.00 |
| 50       | 52.65 | 50.85 | 48.00 | 44.00 | 46.00 | 51.00 |

- NOTES:
- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
  - MATERIAL :  
HOUSING & CAP : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.  
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
  - PLATING : 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN.NICKEL OVERALL.
  - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
  - COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
  - NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
  - CKT 4 & 6 HAS NO IDENTIFICATION TAG.
  - POSITION OF CAP TO BE LOCATED AT CENTER OF DIMENSION 'A' REGARDLESS OF CIRCUIT SIZE.
  - TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK-&-PLACE BY VACUUM SUCTION NOZZLE.
  - THIS HEADER MATES WITH MOLEX:  
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.  
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
  - NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
  - PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.

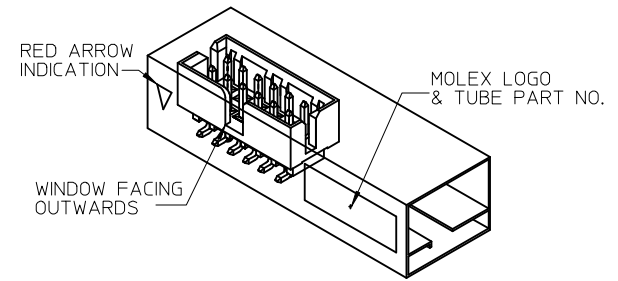
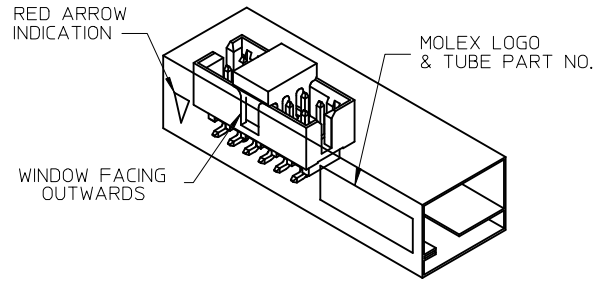
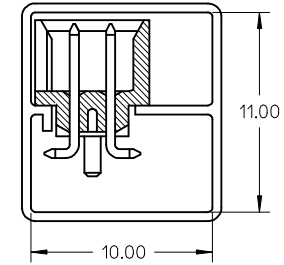
|  |  |   |         |                                   |                    |   |                                     |                            |  |  |  |
|--|--|---|---------|-----------------------------------|--------------------|---|-------------------------------------|----------------------------|--|--|--|
| <b>ADD ILLUSTRATION</b><br>EC NO: S2009-0556<br>DRWN:SKANG<br>CHKD:ATSEE<br>APPR:MLONG | QUALITY SYMBOLS<br>$\nabla=0$<br>$\square=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)   |         | DIMENSION STYLE<br><b>MM ONLY</b> |                    | SCALE<br><b>NTS</b>   | DESIGN UNITS<br><b>METRIC</b>       | THIRD ANGLE PROJECTION     |  |  |  |
|  |  | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.2 ± ---<br>1 PLACE ± --- ± --- | mm INCH | DRAWN BY<br>ATSEE                 | DATE<br>2003/10/14 | TITLE<br><b>MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK &amp; PLACE IN TUBE AND T&amp;R</b> |                                     |                            |  |  |  |
|  |  | ANGULAR ± 3 °   |         | CHECKED BY<br>KCLING              | DATE<br>2003/11/07 | MOLEX INCORPORATED  |                                     |                            |  |  |  |
|  |  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | APPROVED BY<br>SKTOH              | DATE<br>2003/11/07 | MATERIAL NO.<br><b>SEE TABLE</b>  | DOCUMENT NO.<br><b>SD-87832-006</b> | SHEET NO.<br><b>1 OF 4</b> |  |  |  |

TUBE PACKAGING

WITH CAP IN TUBE



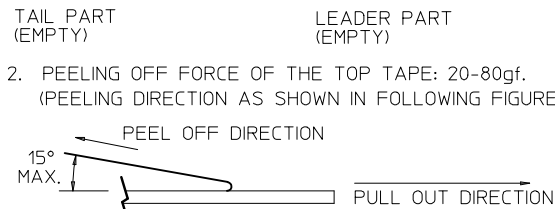
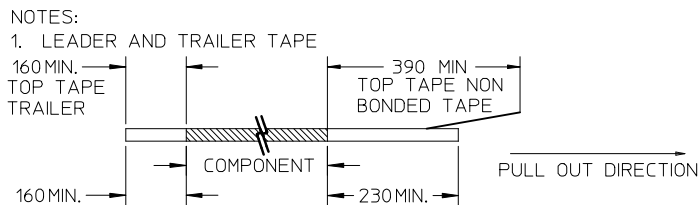
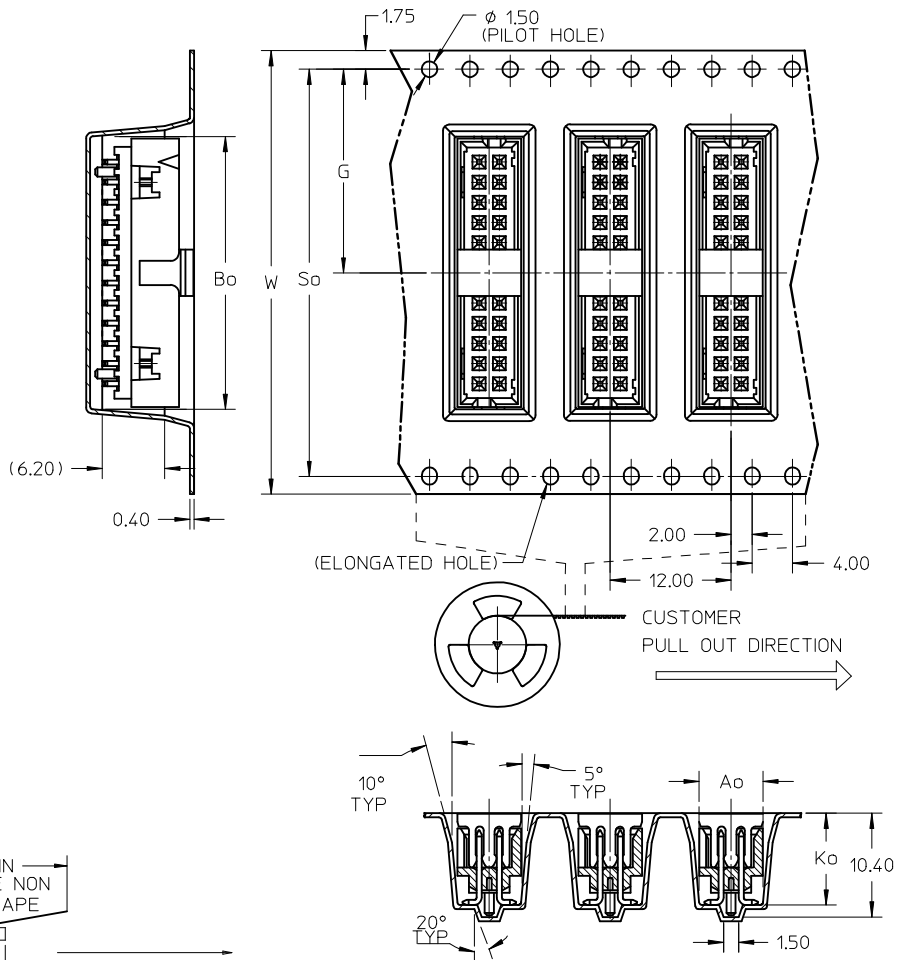
WITHOUT CAP IN TUBE



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

|   |  |                    |                 |  |  |  |                     |              |   |  |
|---|--|--------------------|-----------------|--|--|--|---------------------|--------------|---|--|
| ADD ILLUSTRATION<br>EC NO: S2009-0556<br>DRWN:SKANG<br>CHKD:ATSEE<br>APPR:MLONG | 2009/02/23<br>2009/02/23<br>2009/02/23 | DESCRIPTION<br>REV | QUALITY SYMBOLS | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) | DIMENSION STYLE  |  | SCALE               | DESIGN UNITS | THIRD ANGLE PROJECTION  |  |
|   |  |                    | ▼=0<br>≻=0      |  | MM ONLY  |  | NTS                 | METRIC       |   |  |
|   |  |                    |                 |  | mm   | INCH   | DRAWN BY            | DATE         | TITLE   |  |
|   |  |                    |                 |  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |  | ATSEE               | 2003/10/14   | MGRID, SHROUDED HEADER<br>SMT, W/PEGS/CAP FOR PICK<br>& PLACE IN TUBE AND T&R |  |
|   | 4 PLACES                               | ± ---              | ± ---           | CHECKED BY                               | DATE   | MOLEX INCORPORATED<br>DOCUMENT NO. SD-87832-006  |                     |              |   |  |
|   | 3 PLACES                               | ± ---              | ± ---           | KCLING                                   | 2003/11/07   |  | SHEET NO.<br>2 OF 4 |              |   |  |
|   | 2 PLACES                               | ± 0.2              | ± ---           | APPROVED BY                              | DATE   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                     |              |   |  |
|   | 1 PLACE                                | ± ---              | ± ---           | SKTOH                                    | 2003/11/07   |  |                     | SIZE<br>A3   |   |  |
|   | ANGULAR ± 3 °                          |                    | MATERIAL NO.    | SEE TABLE                                |  |  |                     |              |   |  |

EMBOSSED CARRIER TAPE LAYOUT  
24 CKT USE FOR ILLUSTRATION ONLY



3. PACKAGING STANDARD IS AS PER EIA-481.

|   |  |                               |  |  |  |   |                     |
|---|--|-------------------------------|--|--|--|---|---------------------|
| ADD ILLUSTRATION<br>EC NO: S2009-0556<br>DRWN:SKANG<br>CHKD:ATSEE<br>APPR:MLONG | 2009/02/23<br>2009/02/23<br>2009/02/23 | QUALITY SYMBOLS<br>▽=0<br>◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.2 ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ± 3 ° | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY ATSEE<br>CHECKED BY KCL ING<br>APPROVED BY SKTOH<br>DATE 2003/10/14<br>DATE 2003/11/07<br>DATE 2003/11/07 | SCALE<br>NTS<br>DESIGN UNITS<br>METRIC<br>THIRD ANGLE PROJECTION   | TITLE<br>MGRID, SHROUDED HEADER<br>SMT, W/PEGS/CAP FOR PICK<br>& PLACE IN TUBE AND T&R<br>MOLEX INCORPORATED<br>DOCUMENT NO. SD-87832-006 | SHEET NO.<br>3 OF 4 |
|   | REV<br>A9                              | DESCRIPTION                   | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS   | MATERIAL NO.<br>SEE TABLE  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |                     |

PLS REFER TO PART 87832-\*\*08 FOR CENTER LOCKING SLOT OPTION.

| REG. OPTION | P/N W/O CAP IN TUBE | P/N W/CAP IN TUBE | P/N W/CAP IN TAPE & REEL | CKT SIZE | DIMENSION |       |       |       |       |       |
|-------------|---------------------|-------------------|--------------------------|----------|-----------|-------|-------|-------|-------|-------|
|             |                     |                   |                          |          | W         | G     | Bo    | So    | Ao    | Ko    |
| NO          | 87832-0420          | 87832-0422        | 87832-5122               | 4        | 16.00     | 7.50  | 7.15  | ----- | 6.40  | 9.30  |
| YES         | 87832-0620          | 87832-0622        | 87832-5222               | 6        | 24.00     | 11.50 | 9.15  | ----- | 6.40  | 9.30  |
| YES         | 87832-0820          | 87832-0822        | 87832-5322               | 8        | 24.00     | 11.50 | 11.05 | ----- | 6.40  | 9.30  |
| YES         | 87832-1020          | 87832-1022        | 87832-5422               | 10       | 24.00     | 11.50 | 13.05 | ----- | 6.40  | 9.30  |
| YES         | 87832-1220          | 87832-1222        | 87832-5522               | 12       | 32.00     | 14.20 | 15.15 | 28.40 | 6.85  | 9.30  |
| YES         | 87832-1420          | 87832-1422        | 87832-5622               | 14       | 32.00     | 14.20 | 17.05 | 28.40 | 6.40  | 9.30  |
| YES         | 87832-1620          | 87832-1622        | 87832-5722               | 16       | 32.00     | 14.20 | 19.05 | 28.40 | 6.40  | 9.30  |
| YES         | 87832-1820          | 87832-1822        | 87832-5822               | 18       | 44.00     | 20.20 | 21.05 | 40.40 | 6.40  | 9.30  |
| YES         | 87832-2020          | 87832-2022        | 87832-5922               | 20       | 44.00     | 20.20 | 23.05 | 40.40 | 6.40  | 9.30  |
| YES         | 87832-2220          | 87832-2222        | 87832-6022               | 22       | 44.00     | 20.20 | 25.05 | 40.40 | 6.40  | 9.30  |
| YES         | 87832-2420          | 87832-2422        | 87832-6122               | 24       | 44.00     | 20.20 | 27.05 | 40.40 | 6.40  | 9.30  |
| YES         | 87832-2620          | 87832-2622        | 87832-6222               | 26       | 44.00     | 20.20 | 29.05 | 40.40 | 6.40  | 9.30  |
| YES         | 87832-2820          | 87832-2822        | 87832-6322               | 28       | 56.00     | 26.20 | 31.05 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-3020          | 87832-3022        | 87832-6422               | 30       | 56.00     | 26.20 | 33.05 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-3220          | 87832-3222        | -----                    | 32       | -----     | ----- | ----- | ----- | ----- | ----- |
| YES         | 87832-3420          | 87832-3422        | 87832-6622               | 34       | 56.00     | 26.20 | 37.05 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-3620          | 87832-3622        | -----                    | 36       | -----     | ----- | ----- | ----- | ----- | ----- |
| YES         | 87832-3820          | 87832-3822        | -----                    | 38       | -----     | ----- | ----- | ----- | ----- | ----- |
| YES         | 87832-4020          | 87832-4022        | 87832-6922               | 40       | 56.00     | 26.20 | 43.05 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-4220          | 87832-4222        | -----                    | 42       | -----     | ----- | ----- | ----- | ----- | ----- |
| YES         | 87832-4420          | 87832-4422        | 87832-7122               | 44       | 56.00     | 26.20 | 46.80 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-4620          | 87832-4622        | 87832-7222               | 46       | 56.00     | 26.20 | 47.05 | 52.40 | 6.40  | 9.30  |
| YES         | 87832-4820          | 87832-4822        | -----                    | 48       | -----     | ----- | ----- | ----- | ----- | ----- |
| YES         | 87832-5020          | 87832-5022        | 87832-7422               | 50       | 72.00     | 34.20 | 53.05 | 68.40 | 6.40  | 9.30  |

|  |                 |  |   |                                    |   |                        |  |
|--|-----------------|--|---|------------------------------------|---|------------------------|--|
| ADD ILLUSTRATION<br>EC NO: S2009-0556<br>DRWN:SKANG 2009/02/23<br>CHKD:ATSEE 2009/02/23<br>APPR:MLONG 2009/02/23 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE<br>MM ONLY  | SCALE<br>NTS                       | DESIGN UNITS<br>METRIC  | THIRD ANGLE PROJECTION |  |
|  | ▽=0<br>□=0      | mm      INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.2 ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ± 3 ° | DRAWN BY      DATE<br>ATSEE          2003/10/14<br>CHECKED BY    DATE<br>KCLING        2003/11/07<br>APPROVED BY   DATE<br>SKTOH         2003/11/07 | TITLE                              | MGRID, SHROUDED HEADER<br>SMT, W/PEGS/CAP FOR PICK<br>& PLACE IN TUBE AND T&R   |                        |  |
|  |                 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS   | SEE TABLE   | MOLEX INCORPORATED<br>SD-87832-006 |   | SHEET NO.<br>4 OF 4    |  |
|  | A9              |  |   | SIZE<br>A3                         | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |  |