

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878325122](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 4 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Pick-and-Place Cap, without Side Locking Window and Centre Polarization Slot, with Center Locking Window, with PCB L

Documents:

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

Agency Certification

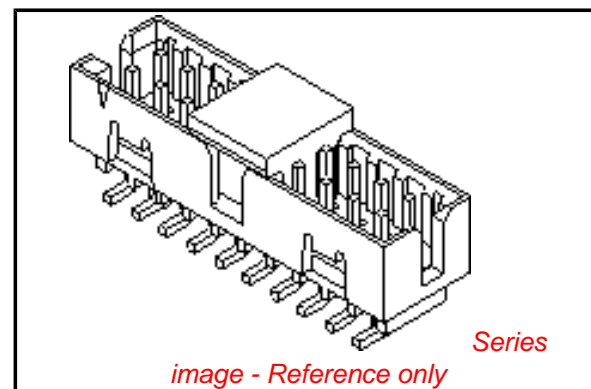
CSA LR19980
 UL E29179

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) 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 No
 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 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
 Robotic Placement Pick and Place Cap
 Shrouded Fully



EU RoHS

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

China RoHS



Not Halogen-Free
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

| | |
|-------------------------------|-----------------|
| 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

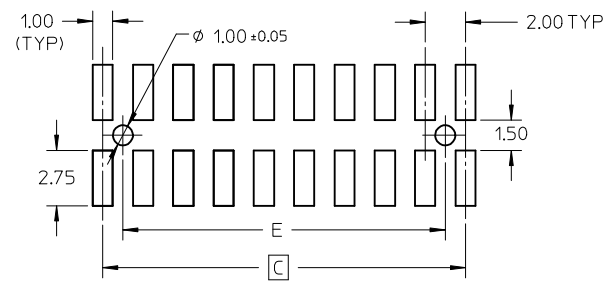
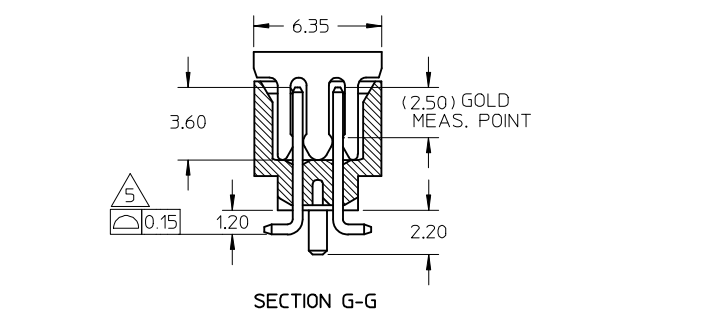
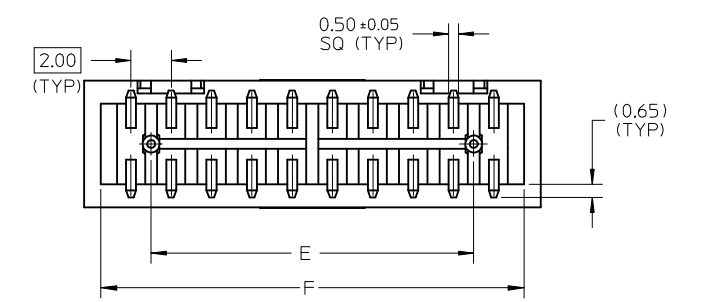
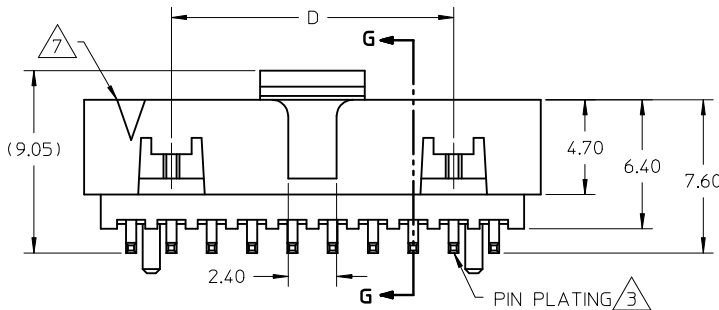
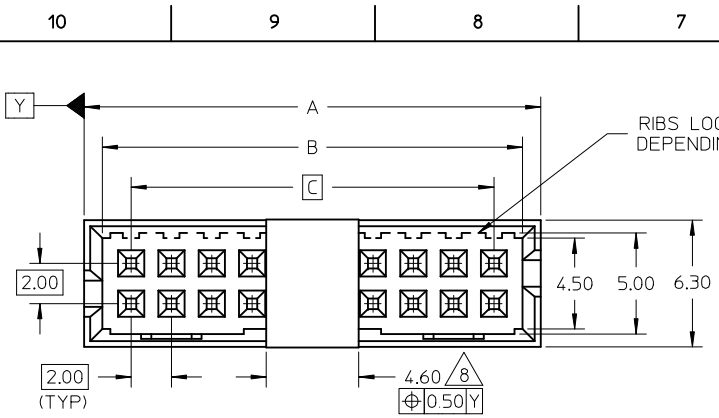
| | |
|--|---------------------------|
| Duration at Max. Process Temperature (seconds) | 10 |
| Lead-free Process Capability | Reflow Capable (SMT only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

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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RECOMMENDED PCB PATTERN

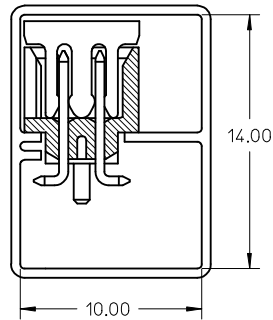
| CKT SIZE | A | B | C | D | E | F |
|----------|-------|-------|-------|-------|-------|-------|
| 4 | 6.65 | 4.85 | 2.00 | ----- | ----- | 5.00 |
| 6 | 8.65 | 6.85 | 4.00 | ----- | 2.00 | 7.00 |
| 8 | 10.65 | 8.85 | 6.00 | ----- | 4.00 | 9.00 |
| 10 | 12.65 | 10.85 | 8.00 | ----- | 6.00 | 11.00 |
| 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.

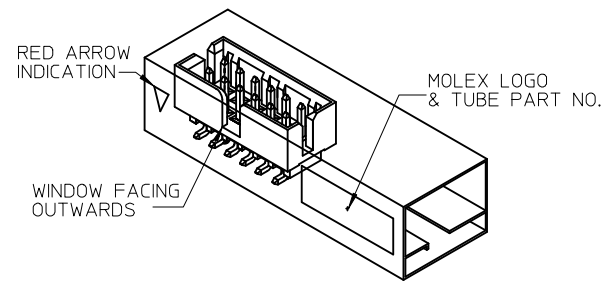
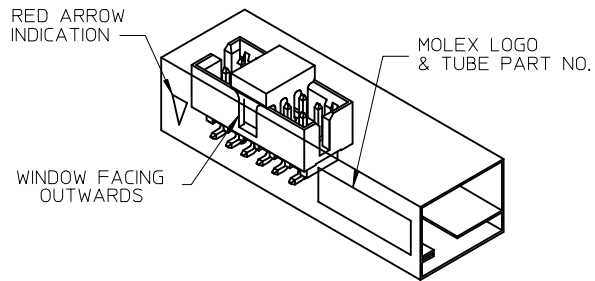
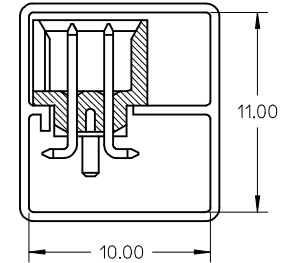
| | | | | | | | | | | | | | |
|--|--|-------------------------------|---------------------------------------|--|---|--------------------|---|----------------------------------|------------------------|-------------------------------------|--|----------------------------|--|
| ADD ILLUSTRATION EC NO: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

TUBE PACKAGING

WITH CAP IN TUBE



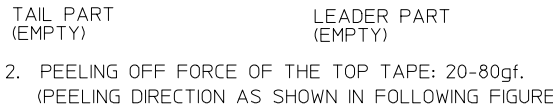
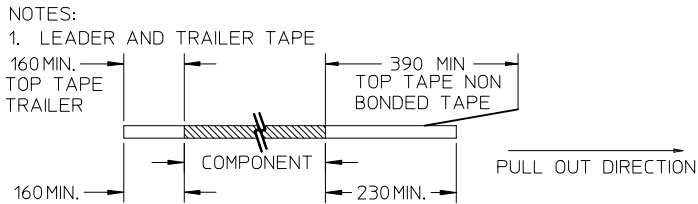
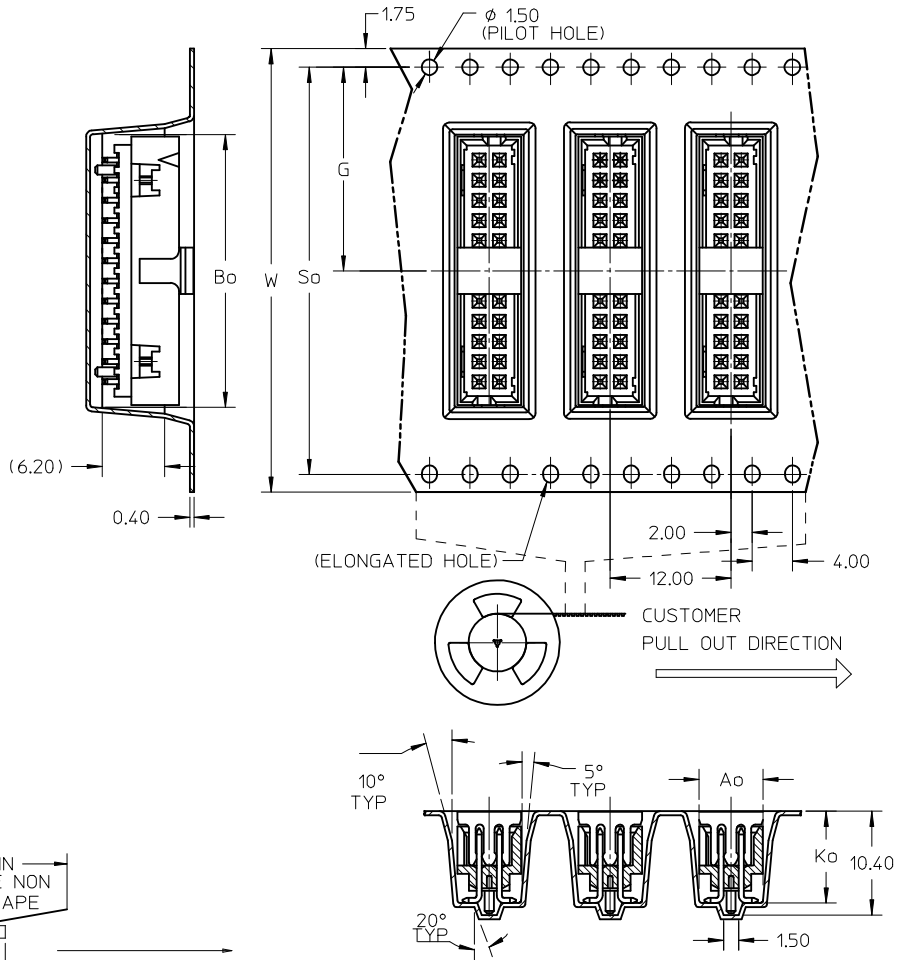
WITHOUT CAP IN TUBE



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

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

EMBOSSED CARRIER TAPE LAYOUT
24 CKT USE FOR ILLUSTRATION ONLY



3. PACKAGING STANDARD IS AS PER EIA-481.

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

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