

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878326123](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 24 Circuits, 0.76µm (30µ") Gold (Au) Plating, with Pick-and-Place Cap, with Locking Windows and Center Polarization Slot, PCB Locator, Embossed Tape on Reel

Documents:

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

Agency Certification

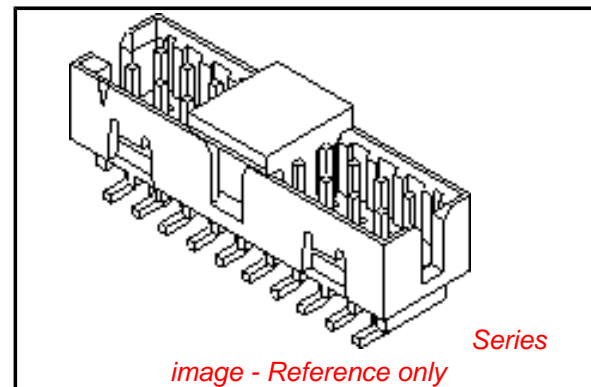
CSA LR19980
 UL E29179

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) 24
 Circuits (maximum) 24
 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) 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
 Robotic Placement Pick and Place Cap
 Shrouded Fully



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

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

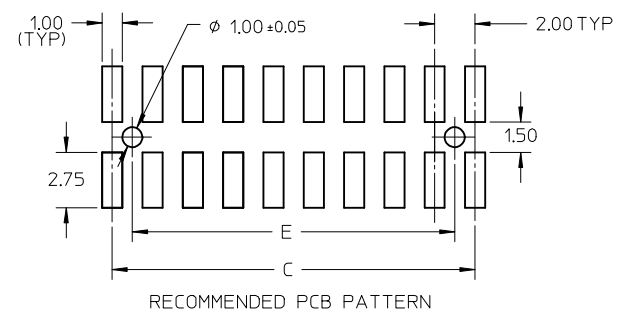
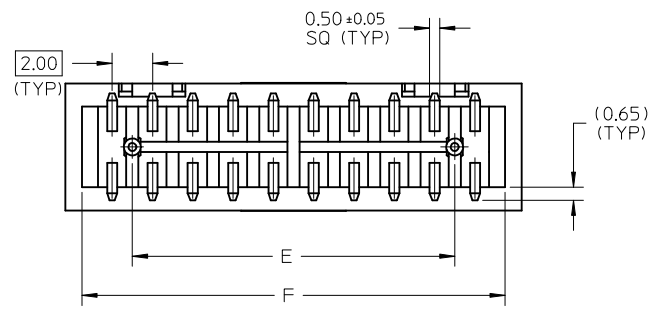
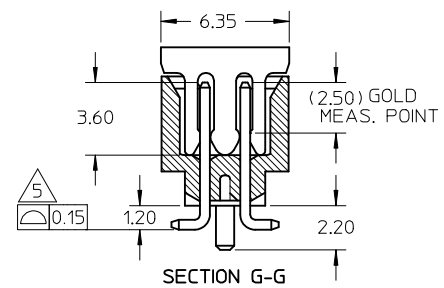
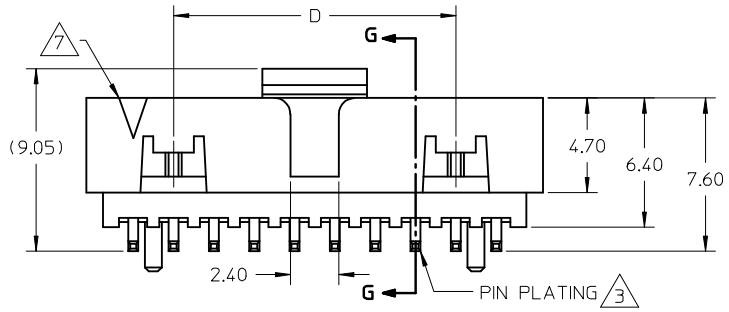
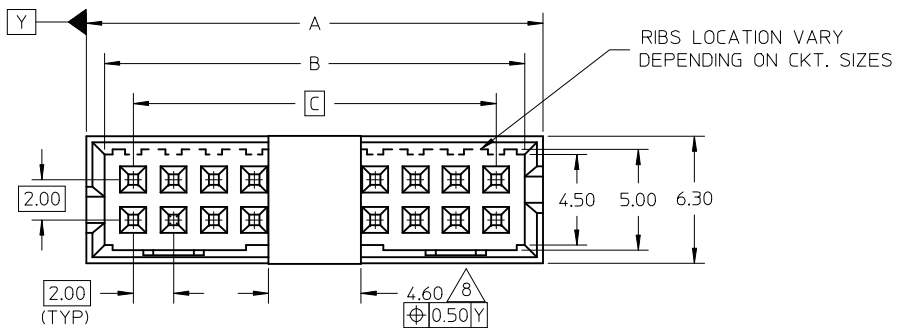
| | |
|--|---------------------------|
| Duration at Max. Process Temperature (seconds) | 10 |
| Lead-free Process Capability | Reflow Capable (SMT only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

Material Info**Reference - Drawing Numbers**

| | |
|-----------------------|--------------|
| Product Specification | PS-87831-027 |
| Sales Drawing | SD-87832-007 |

This document was generated on 05/26/2010

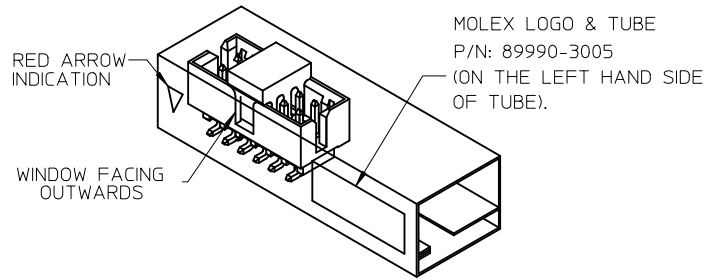
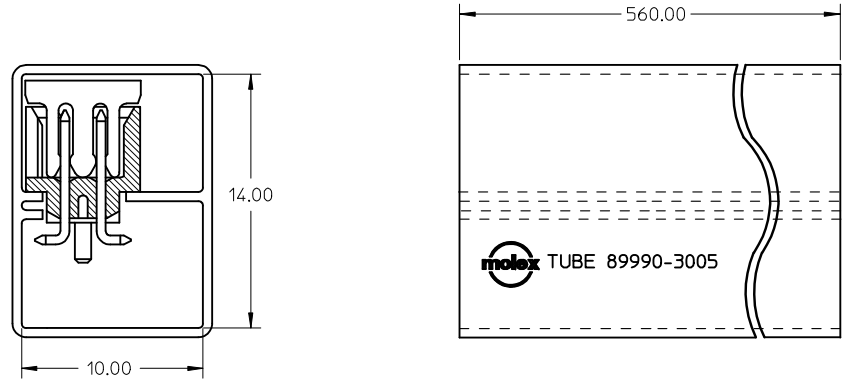
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| CKT SIZE | DIMENSION | | | | | |
|----------|-----------|-------|-------|-------|-------|-------|
| | A | B | C | D | E | F |
| 4 | 6.65 | 4.85 | 2.00 | --- | --- | 5.00 |
| 6 | 8.65 | 6.85 | 4.00 | --- | 2.00 | 7.00 |
| 8 | 10.65 | 8.85 | 6.00 | --- | 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 |

| | | | | | | | | | | |
|---|-------------------------------|---------------------------------------|---------------|----------------------------|---|--------------|---|------------------------|--|--|
| ADD 34CKT T&R P/N EC NO: S2009-0642 DRWN:SKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18 | QUALITY SYMBOLS ▽=0 ◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | | 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 MOLEX INCORPORATED | | | |
| | | 3 PLACES | ± --- | ± --- | CHECKED BY | DATE | | | | |
| 2 PLACES | ± 0.2 | ± --- | KCL ING | 2003/11/07 | APPROVED BY SKTOH 2003/11/07 MATERIAL NO. SEE TABLE DOCUMENT NO. SD-87832-007 SHEET NO. 1 OF 4 | | | | | |
| 1 PLACE | ± --- | ± --- | ANGULAR ± 3 ° | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | |

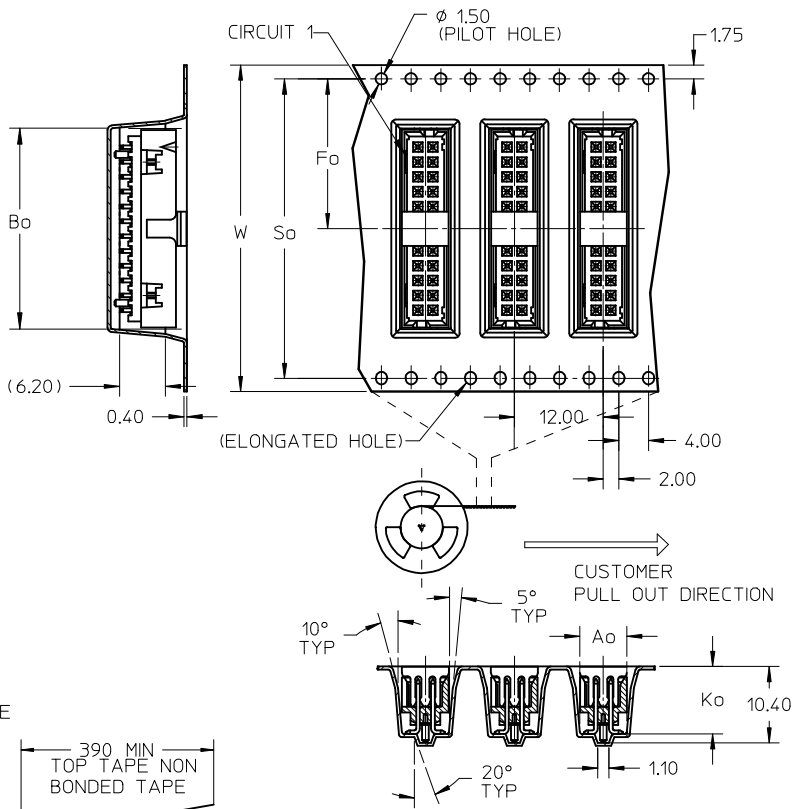
WITH CAP
TUBE PACKAGING



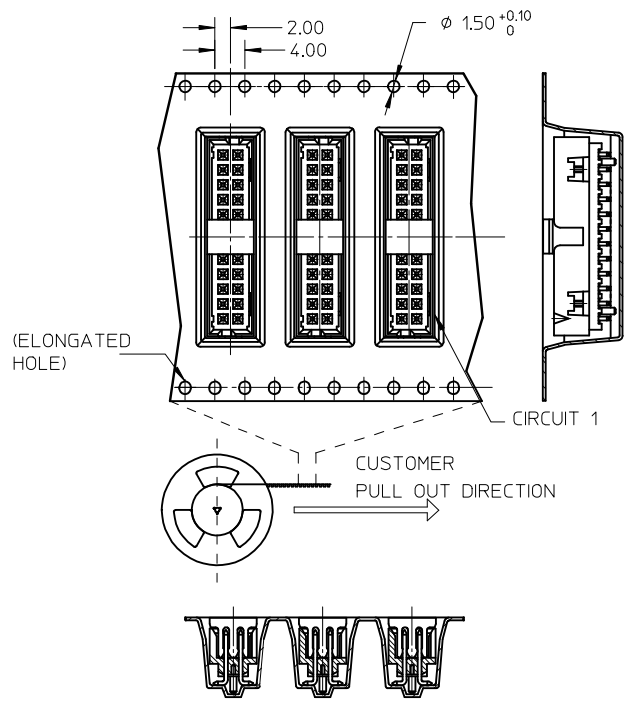
REF : ORIENTATION OF PART IN TUBE,
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY.)

| | | | | | | | | | | | |
|---|--------------------|-------------------------------|--|-------|----------------------------|---|---|------------------------|------------------------|--|--|
| ADD 34CKT T&R P/N EC NO: S2009-0642 DRWN:SKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18 | DESCRIPTION REV | QUALITY SYMBOLS ▽=0 ◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | | 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 | | | | | |
| | ± 0.2 | ± --- | 2 PLACES | ± --- | KCLING | 2003/11/07 | MOLEX INCORPORATED | | | | |
| | ± --- | ± --- | 1 PLACE | ± --- | APPROVED BY | DATE | | | | | |
| | ANGULAR ± 3 ° | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SKTOH | 2003/11/07 | DOCUMENT NO. | | SHEET NO. | | |
| A9 | | | | | SEE TABLE | | SD-87832-007 | | 2 OF 4 | | |
| | | | | | SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | |
| | | | | | A3 | | | | | | |

EMBOSSED CARRIER TAPE LAYOUT OPTION A
24 CKT USE FOR ILLUSTRATION ONLY

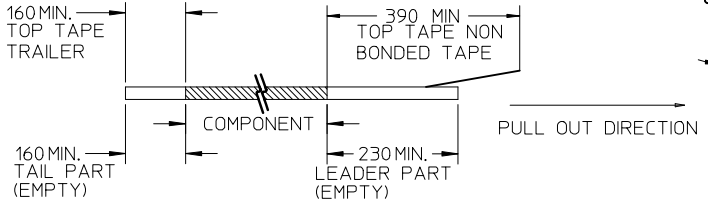


EMBOSSED CARRIER TAPE LAYOUT OPTION B
24 CKT USE FOR ILLUSTRATION ONLY

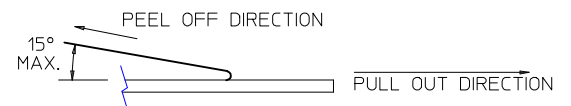


NOTES:

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 34CKT T&R P/N | 2009/03/11 | 2009/03/11 | 2009/03/18 |
| EC NO: S2009-0642 | DRWN:SKANG | CHKD:ATSEE | APPR:MLONG |
| REV | DESCRIPTION | | |
| A9 | | | |

| | | |
|-----------------|--|-----|
| QUALITY SYMBOLS | ▽=0 | ∇=0 |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | |

| | |
|---------------------------------------|-------------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | |
| mm | INCH |
| 4 PLACES | ± --- ± --- |
| 3 PLACES | ± --- ± --- |
| 2 PLACES | ± 0.2 ± --- |
| 1 PLACE | ± --- ± --- |
| ANGULAR ± 3 ° | |

| | | | |
|-----------------|--------------|---|------------------------|
| DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| MM ONLY | NTS | METRIC | |
| DRAWN BY | DATE | TITLE | |
| ATSEE | 2003/10/14 | MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R | |
| CHECKED BY | DATE | MOLEX INCORPORATED | |
| KCL ING | 2003/11/07 | SD-87832-007 | |
| APPROVED BY | DATE | SHEET NO. | |
| SKTOH | 2003/11/07 | 3 OF 4 | |
| MATERIAL NO. | DOCUMENT NO. | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | |
| SEE TABLE | | | |

| LEG OPTION | P/N W/O CAP IN TUBE | P/N W/CAP IN TUBE (SHEET 2) | P/N W/CAP TAPE & REEL (SHEET 3) | CKT SIZE | DIMENSION | | | | | | PACKAGING OPTION (SHEET 3) |
|---------------|---------------------------|-----------------------------------|---------------------------------------|-------------|-----------|-------|-------|-------|------|------|----------------------------------|
| | | | | | W | Fo | Bo | So | Ao | Ko | |
| NO | 87832-0421 | 87832-0423 | 87832-5123 | 04 | 16.00 | 7.50 | 7.15 | - | 6.40 | 9.30 | A |
| YES | 87832-0621 | 87832-0623 | 87832-5223 | 06 | 24.00 | 11.50 | 9.15 | - | 6.40 | 9.30 | A |
| YES | 87832-0821 | 87832-0823 | 87832-5323 | 08 | 24.00 | 11.50 | 11.05 | - | 6.40 | 9.30 | A |
| YES | 87832-1021 | 87832-1023 | 87832-5423 | 10 | 24.00 | 11.50 | 13.05 | - | 6.40 | 9.30 | A |
| YES | 87832-1221 | 87832-1223 | 87832-5523 | 12 | 32.00 | 14.20 | 15.15 | 28.40 | 6.40 | 9.30 | A |
| YES | 87832-1421 | 87832-1423 | 87832-5623 | 14 | 32.00 | 14.20 | 17.05 | 28.40 | 6.40 | 9.30 | A |
| YES | 87832-1621 | 87832-1623 | 87832-5723 | 16 | 32.00 | 14.20 | 19.05 | 28.40 | 6.40 | 9.30 | A |
| YES | 87832-1821 | 87832-1823 | 87832-5823 | 18 | 44.00 | 20.20 | 21.05 | 40.40 | 6.40 | 9.30 | A |
| YES | 87832-2021 | 87832-2023 | 87832-5923 | 20 | 44.00 | 20.20 | 23.05 | 40.40 | 6.40 | 9.30 | A |
| YES | 87832-2221 | 87832-2223 | 87832-6023 | 22 | 44.00 | 20.20 | 25.05 | 40.40 | 6.40 | 9.30 | A |
| YES | 87832-2421 | 87832-2423 | 87832-6123 | 24 | 44.00 | 20.20 | 27.05 | 40.40 | 6.40 | 9.30 | A |
| YES | 87832-2621 | 87832-2623 | 87832-6223 | 26 | 44.00 | 20.20 | 29.05 | 40.40 | 6.40 | 9.30 | A |
| YES | 87832-2821 | 87832-2823 | 87832-6323 | 28 | 56.00 | 26.20 | 31.05 | 52.40 | 6.40 | 9.30 | A |
| YES | 87832-3021 | 87832-3023 | 87832-6423 | 30 | 56.00 | 26.20 | 33.05 | 52.40 | 6.40 | 9.30 | A |
| YES | 87832-3221 | 87832-3223 | -- | 32 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-3421 | 87832-3423 | 87832-6623 | 34 | 56.00 | 26.20 | 37.05 | 52.40 | 6.40 | 9.30 | A |
| YES | 87832-3621 | 87832-3623 | -- | 36 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-3821 | 87832-3823 | -- | 38 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-4021 | 87832-4023 | 87832-6923 | 40 | 56.00 | 26.20 | 43.05 | 52.40 | 6.40 | 9.30 | A |
| YES | 87832-4221 | 87832-4223 | -- | 42 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-4421 | 87832-4423 | 87832-7123 | 44 | 56.00 | 26.20 | 46.80 | 52.40 | 6.40 | 9.30 | A |
| YES | 87832-4621 | 87832-4623 | -- | 46 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-4821 | 87832-4823 | -- | 48 | -- | -- | -- | -- | -- | -- | - |
| YES | 87832-5021 | 87832-5023 | 87832-7423 | 50 | 72.00 | 34.20 | 53.05 | 68.40 | 6.40 | 9.30 | A |
| YES | -- | -- | 87832-9423 | 10 | 24.00 | 11.50 | 13.05 | - | 6.40 | 9.30 | B |

PLS REFER TO PART
87832-***09 FOR CENTER
LOCKING SLOT OPTION.

- 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 : 0.76um/30uin 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 34CKT T&R P/N EC NO: S2009-0642 DRWN:SKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18 | QUALITY SYMBOLS ▽=0 ◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | | |
| | | 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- | mm INCH | DRAWN BY ATSEE | DATE 2003/10/14 | TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R | | | | | |
| | | ANGULAR ± 3 ° | | CHECKED BY KCLING | DATE 2003/11/07 | MOLEX INCORPORATED | | | | | |
| | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | APPROVED BY SKTOH | DATE 2003/11/07 | MATERIAL NO. SEE TABLE | DOCUMENT NO. SD-87832-007 | SHEET NO. 4 OF 4 | | | |