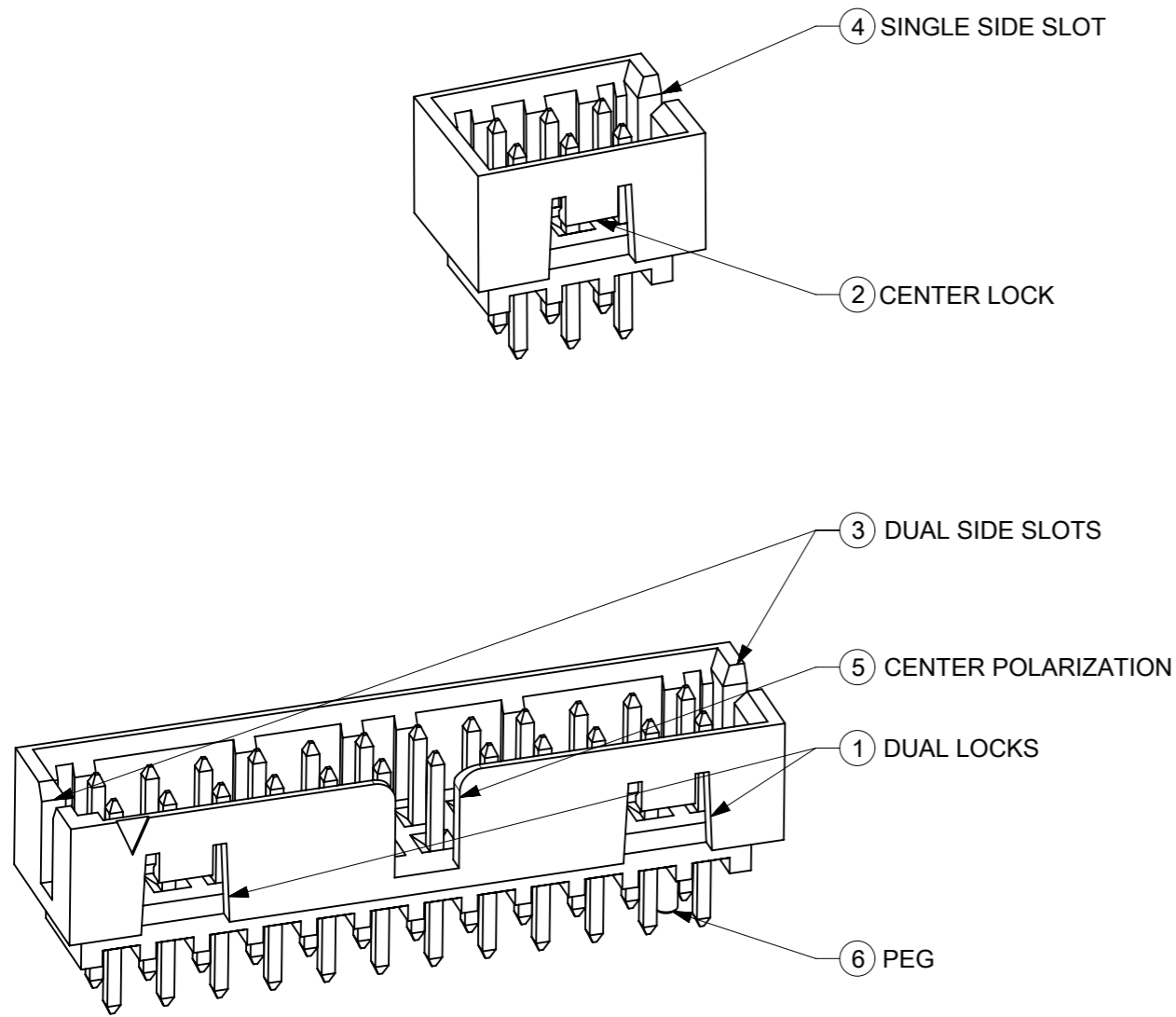


FEATURES SELECTION GUIDE



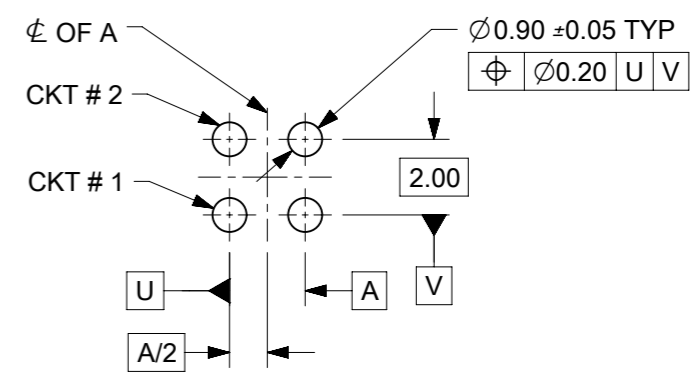
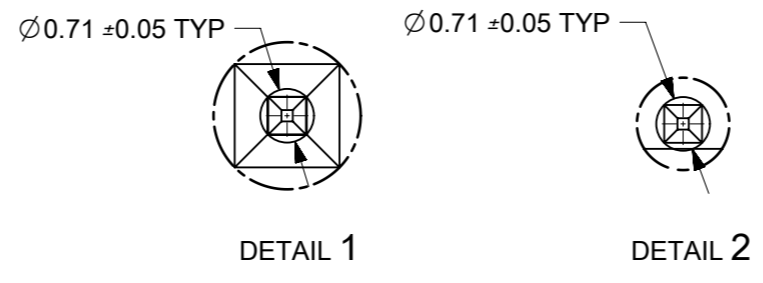
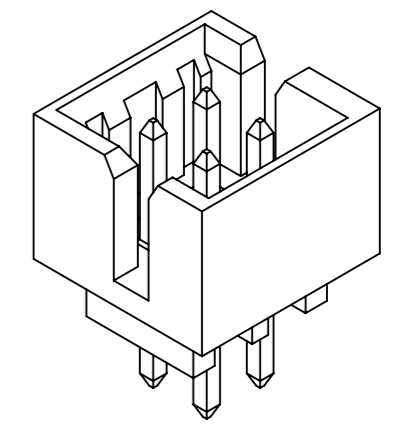
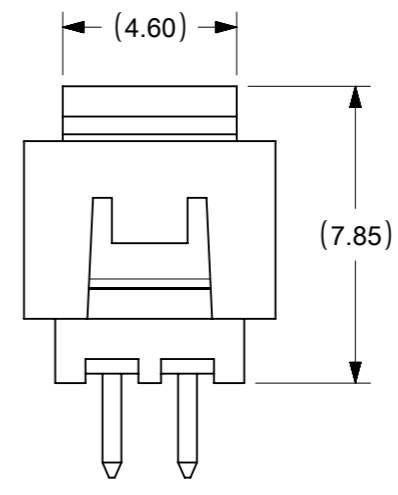
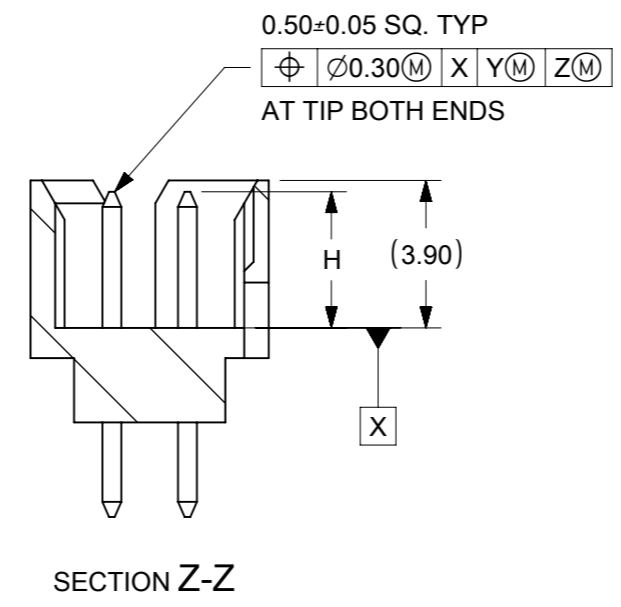
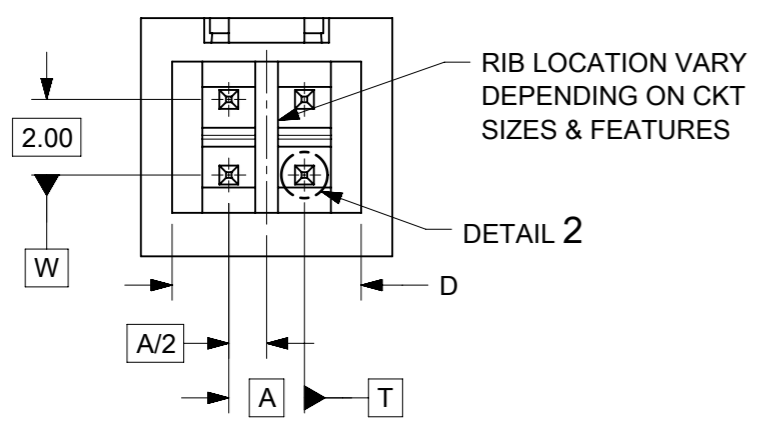
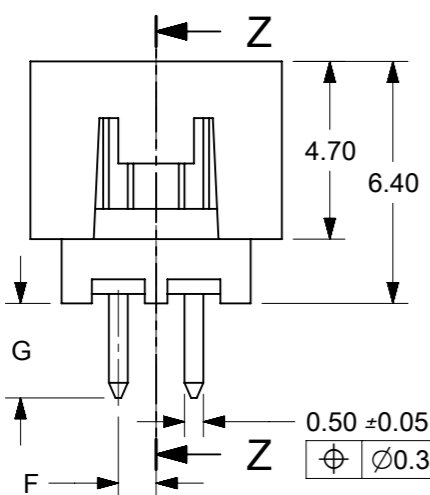
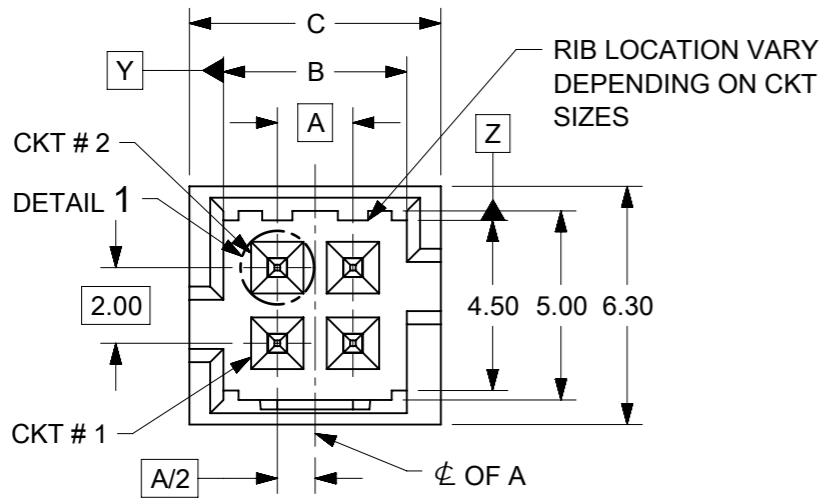
| CIRCUIT SIZE | FRICTION LOCKS | | SIDE SLOTS | | ⑤ CENTER POLARIZATION | ⑥ PEG | SHEET NO |
|--------------|----------------|----------|------------|----------|-----------------------|-------|----------|
| | ① DUAL | ② CENTER | ③ DUAL | ④ SINGLE | | | |
| 4 | N.A | N.A | YES | N.A | N.A | N.A | 2 - 3 |
| | N.A | YES | YES | N.A | N.A | N.A | |
| | N.A | YES | N.A | YES | N.A | N.A | |
| 6 | N.A | N.A | YES | N.A | N.A | N.A | 4 - 5 |
| | N.A | N.A | YES | N.A | N.A | YES | |
| | N.A | YES | YES | N.A | N.A | N.A | |
| | N.A | YES | YES | N.A | N.A | YES | |
| | N.A | YES | N.A | YES | N.A | N.A | |
| | N.A | N.A | YES | N.A | YES | N.A | |
| 8 TO 12 | N.A | N.A | YES | N.A | YES | N.A | 6 - 8 |
| | N.A | N.A | YES | N.A | YES | YES | |
| | N.A | YES | YES | N.A | N.A | N.A | |
| | N.A | YES | YES | N.A | N.A | YES | |
| | N.A | YES | N.A | YES | N.A | N.A | |
| | N.A | YES | N.A | YES | N.A | YES | |
| 14 TO 50 | YES | N.A | YES | N.A | YES | N.A | 9 - 13 |
| | YES | N.A | YES | N.A | YES | YES | |

PACKAGING SPECIFICATION TABLE

| | |
|----------------------------------|--------------|
| TAPE AND REEL PACKAGING | PK-87831-300 |
| TUBE STANDARD PACKAGING | PK-87831-001 |
| TUBE NON-STANDARD PACKAGING FOR: | PK-87831-002 |
| 87831-0419 87831-0645 | |
| 87831-5141 87831-5119 | |
| 87831-0443 87831-1011 | |
| 87831-5241 87831-1420 | |
| 87831-5242 | |
| 87831-0643 | |

| | | | | | |
|---|---|-----------------------------|--|------------------------------|---|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | |
| | DIMENSION UNITS SCALE GENERAL TOLERANCES (UNLESS SPECIFIED) | mm NTS MM INCH | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | | |
| 4 PLACES ± ± 3 PLACES ± ± 2 PLACES ± 0.2 ± 1 PLACE ± ± 0 PLACES ± ± ANGULAR TOL ± 3.0° | INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29 | | PRODUCT CUSTOMER DRAWING | | DOCUMENT NUMBER SD-87831-0001 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIRD ANGLE PROJECTION | DRAWING A3-SIZE | SERIES 87831 | MATERIAL NUMBER SEE TABLE | CUSTOMER GENERAL MARKET |
| DOCUMENT STATUS P1 RELEASE DATE 2019/07/09 06:47:12 | SHEET NUMBER 1 OF 14 | | REVISION A16 | | |

4 CIRCUITS



- NOTES:**
- MATERIALS:**
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ. PHOSPHOR BRONZE
 - FINISHES:** REFER TO PLATING OPTIONS
 - PRODUCT SPECIFICATION:** PS-87831-027
 - PACKAGING SPECIFICATION:** SEE PACKAGING SPECS TABLE ON SHEET 1
 - MATES WITH:**
 - A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
 - B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
 - C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)


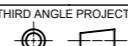
| | | | | | |
|---------|---|-------|-----------------------------------|---------|--|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | |
| | DIMENSION UNITS | SCALE | | | |
| ▽ = 0 | mm | NTS | | | 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |
| ▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | PRODUCT CUSTOMER DRAWING |
| ▽ = 0 | | MM | INCH | | DOCUMENT NUMBER |
| ▽ = 0 | 4 PLACES ± | | | | SD-87831-0001 |
| ▽ = 0 | 3 PLACES ± | | | | DOC TYPE |
| ▽ = 0 | 2 PLACES ± | 0.2 | | | PSD |
| ▽ = 0 | 1 PLACE ± | | | | DOC PART |
| ▽ = 0 | 0 PLACES ± | | | | 001 |
| ▽ = 0 | ANGULAR TOL ± | 3.0° | | | REVISION |
| ▽ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING | SERIES |
| ▽ = 0 | | | | A3-SIZE | 87831 |
| | | | | | MATERIAL NUMBER |
| | | | | | SEE TABLE |
| | | | | | CUSTOMER |
| | | | | | GENERAL MARKET |
| | | | | | SHEET NUMBER |
| | | | | | 2 OF 14 |

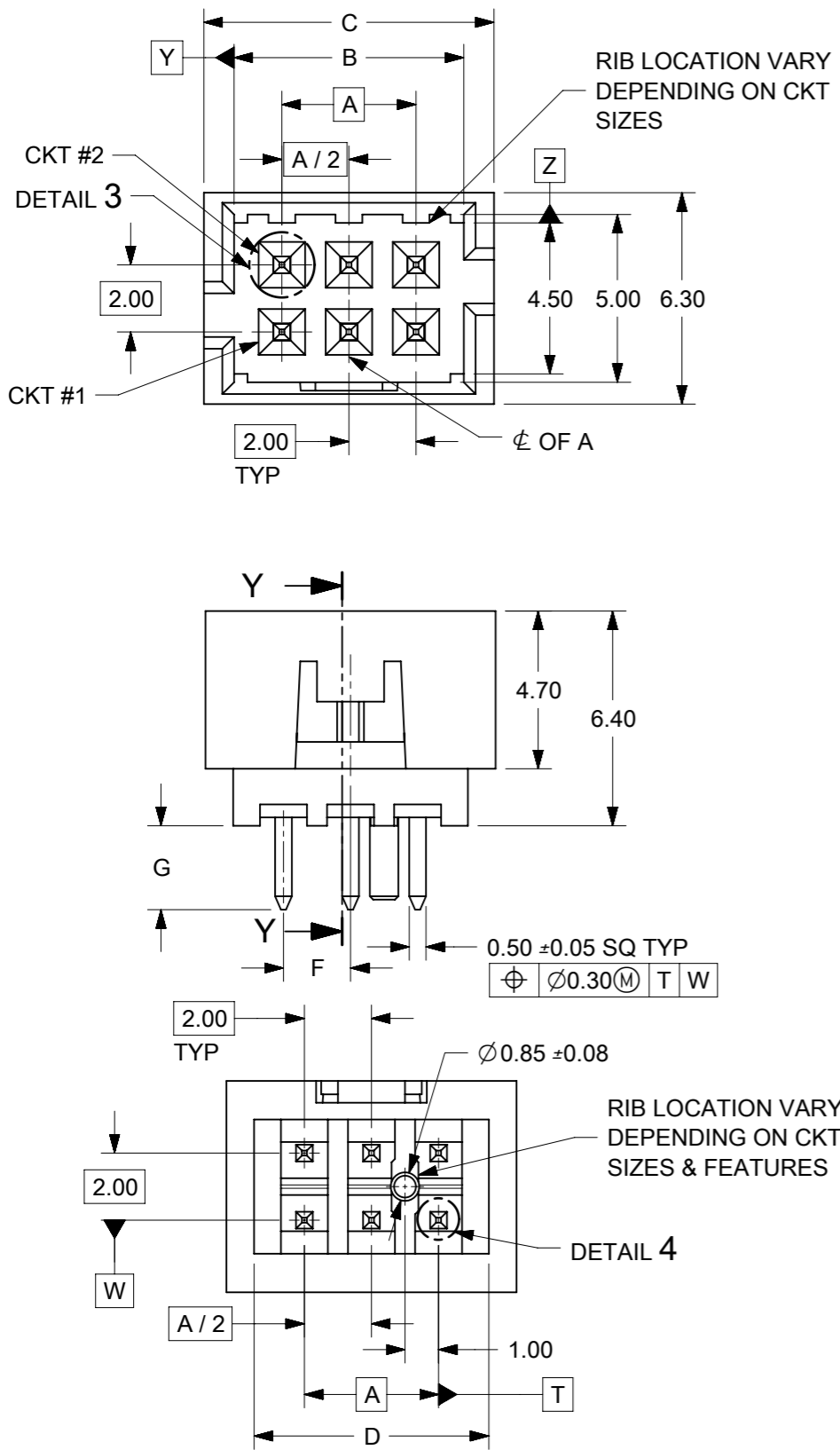
4 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | | | | | | | |
|----------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|------|------|------|-----|-----|------|-----------|-----|-----|-----|------|------|-----------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H | | | | | | |
| 4 | 87831-0419 | N.A | N.A | 1 | N.A | N.A | YES | N.A | N.A | N.A | 2.00 | 4.85 | 6.65 | 5.00 | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | |
| | 87831-0420 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0421 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0436 | N.A | N.A | 4 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0441 | 87831-0456 | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | 1.00 | 2.50 | 3.60±0.20 |
| | 87831-0442 | N.A | 87831-5565 | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-5141 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | 1.00 | 3.50 | 3.60±0.20 |
| | 87831-5142 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-6141 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | 1.00 | 2.80 | 3.60±0.20 |
| | 87831-6142 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0443 | N.A | N.A | 2 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | 1.00 | 2.50 | 3.60±0.20 |
| | 87831-0444 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |

PLATING OPTIONS:

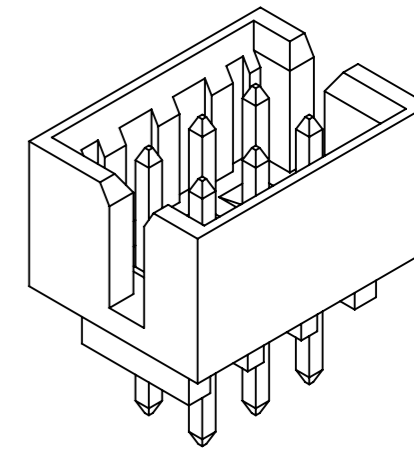
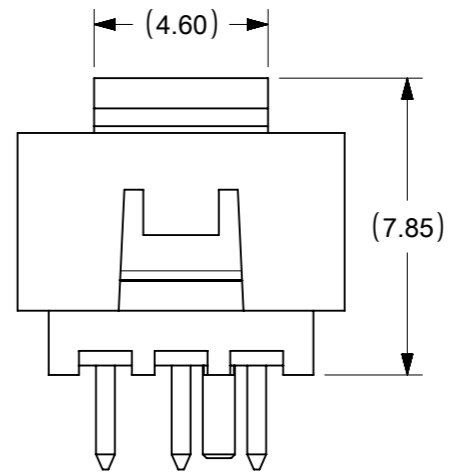
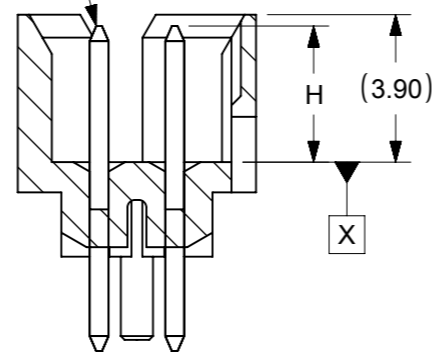
- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

| | | | | | | | | | | | |
|---|---|--------------------|-------|------------------------|--|-----------------|--|----------------|--|--------------|--|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | |
| | DIMENSION UNITS | | SCALE | | CURRENT REV DESC: ADDED BTB DIST. | | | | | | |
| | mm | | NTS | |  MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING | | | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | | | | | |
| | ▽ = 0 | 4 PLACES | ± | ± | EC NO: 619055 | | | | | | |
| | ▽ = 0 | 3 PLACES | ± | ± | DRWN: NMANE02 2019/03/25 | | | | | | |
| | ▽ = 0 | 2 PLACES | ± | 0.2 ± | CHK'D: NMANE02 2019/07/09 | | | | | | |
| | ▽ = 0 | 1 PLACE | ± | ± | APPR: MRAMAKRISHNA 2019/07/09 | | | | | | |
| | ☒ = 0 | 0 PLACES | ± | ± | INITIAL REVISION: | | | | | | |
| | ■ = 0 | ANGULAR TOL ± 3.0° | | | DRWN: GMENARLY 2015/04/15 | | | | | | |
| ▽ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | APPR: KHLIM 2015/06/29 | | | | | | | |
| THIRD ANGLE PROJECTION | | DRAWING | | SERIES | | MATERIAL NUMBER | | CUSTOMER | | SHEET NUMBER | |
|  | | A3-SIZE | | 87831 | | SEE TABLE | | GENERAL MARKET | | 3 OF 14 | |



6 CIRCUITS

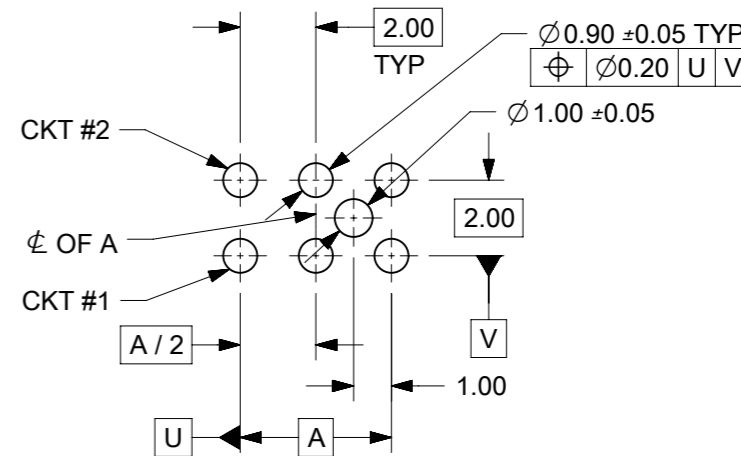
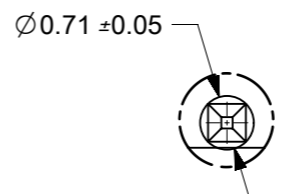
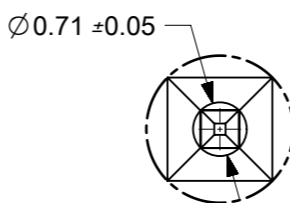
0.50±0.05 SQ TYP
 ⊕ ϕ0.30(M) X Y(M) Z(M)
 AT TIP BOTH ENDS



VIEW FOR HEADER WITH CAP

VIEW FOR HEADER WITH ONLY DUAL SLOTS

0.50 ±0.05 SQ TYP
 ⊕ ϕ0.30(M) T W



RECOMMENDED PCB LAYOUT

- NOTES:
1. MATERIALS:
 HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
 PIN: 0.50mm SQ PHOSPHOR BRONZE
 2. FINISHES: REFER TO PLATING OPTIONS
 3. PRODUCT SPECIFICATION: PS-87831-027
 4. PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
 B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
 C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

| | | | | | | | | |
|--|---|--|--|--------------------------|---|---|-------------------------|-----------------|
| SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 | DIMENSION UNITS mm NTS | SCALE CURRENT REV DESC: ADDED BTB DIST. | | | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | | | | MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | | |
| | 4 PLACES ± ± 3 PLACES ± ± 2 PLACES ± 0.2 ± 1 PLACE ± ± 0 PLACES ± ± | ANGULAR TOL ± 3.0° | INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29 | PRODUCT CUSTOMER DRAWING | DOCUMENT NUMBER SD-87831-0001 | DOC TYPE PSD | DOC PART 001 | REVISION A16 |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIRD ANGLE PROJECTION | DRAWING A3-SIZE | SERIES 87831 | MATERIAL NUMBER SEE TABLE | CUSTOMER GENERAL MARKET | SHEET NUMBER 4 OF 14 | |
| | DOCUMENT STATUS P1 | RELEASE DATE 2019/07/09 | 06:47:12 | | | | | |

6 CIRCUITS

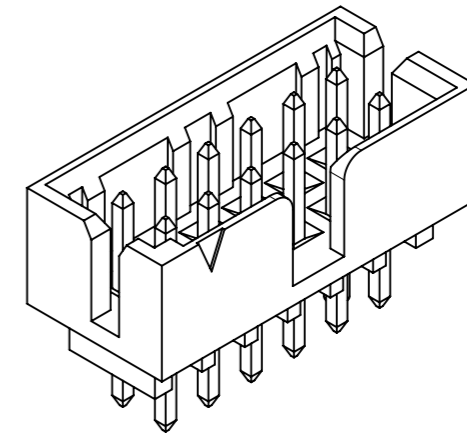
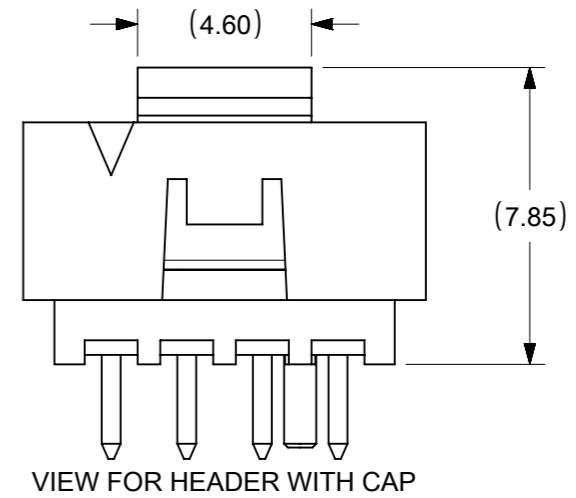
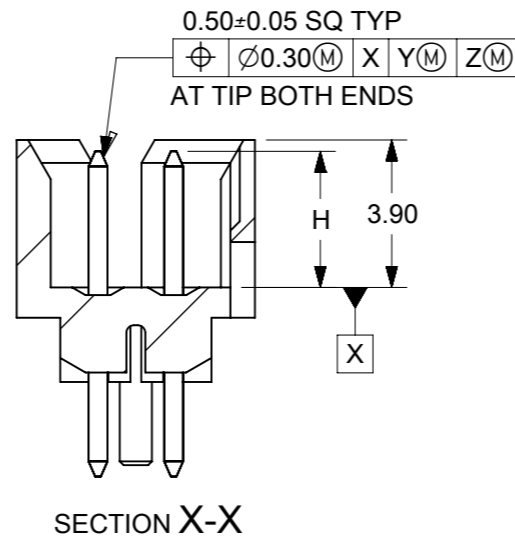
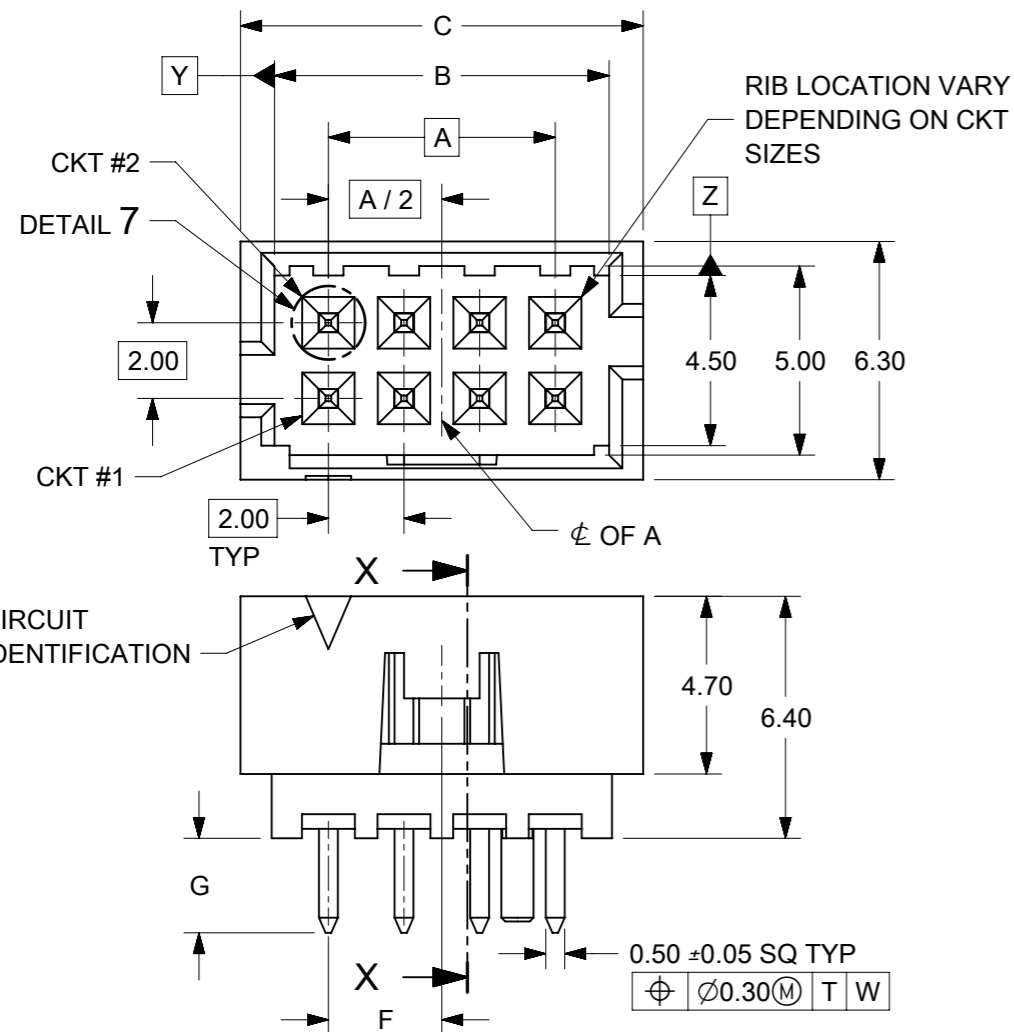
| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | | | | | | | |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|------|------|------|-----|------|-----------|-----------|-----|-----|-----|-----|------|-----------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H | | | | | | |
| 6 | 87831-0619 | N.A | N.A | 1 | N.A | N.A | YES | N.A | N.A | N.A | 4.00 | 6.85 | 8.65 | 7.00 | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | |
| | 87831-0620 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0621 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0636 | N.A | N.A | 4 | N.A | N.A | YES | N.A | N.A | YES | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | 2.50 | 3.60±0.20 |
| | 87831-0628 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0629 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0641 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | 2.50 | 3.60±0.20 |
| | 87831-0642 | N.A | 87831-5552 | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-5241 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-5242 | N.A | N.A | 3 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | 2.80 | 3.60±0.20 |
| | 87831-6241 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-6242 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0643 | N.A | N.A | 2 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | 2.50 | 3.60±0.20 |
| | 87831-0644 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0645 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-0646 | N.A | N.A | 3 | N.A | YES | N.A | YES | N.A | N.A | | | | | | YES | N.A | | N.A | N.A | N.A | N.A | 2.50 | 3.60±0.20 |
| | 87831-0632 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | |
| | 87831-5119 | N.A | N.A | 1 | | | | | | | | | | | | | | | | | | | | |
| 87831-5121 | N.A | N.A | 3 | N.A | N.A | YES | N.A | YES | N.A | N.A | N.A | N.A | N.A | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | | |
| 87831-5136 | N.A | N.A | 4 | | | | | | | | | | | | | | | | | | | | | |

PLATING OPTIONS:

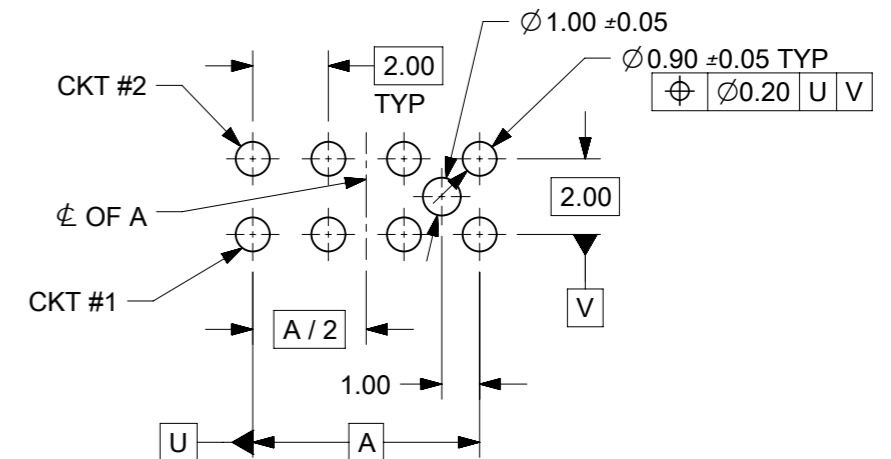
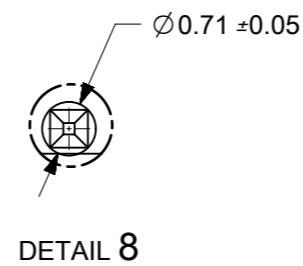
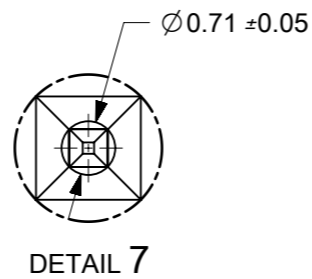
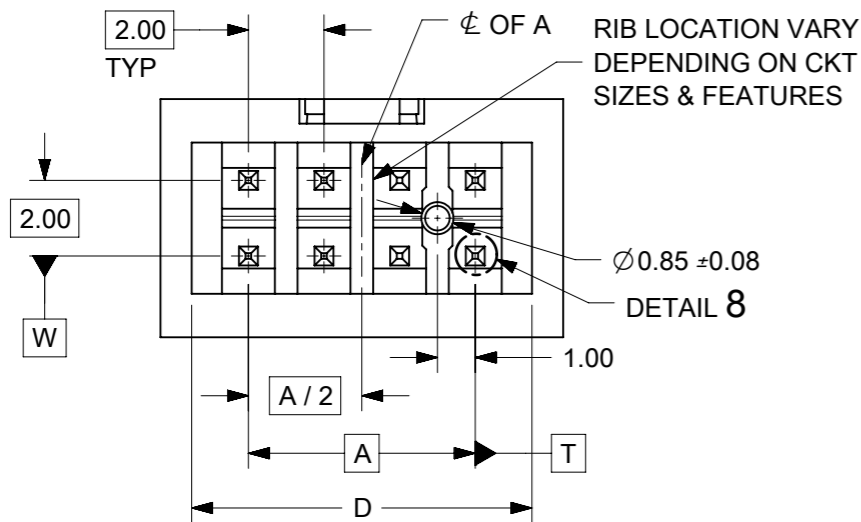
- 1 - 0.05-0.13µm/2-5µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µm MIN. MATTE TIN OVER 1.25µm/50µm MIN. NICKEL OVERALL.

| | | | | | | |
|---------|---|-------|---------------------------------------|--|--|--|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | molex | |
| | DIMENSION UNITS | SCALE | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | |
| ▽ = 0 | mm | NTS | EC NO: 619055 | | MILLIGRID | |
| ▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DRWN: NMANE02 2019/03/25 | | 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | |
| ▽ = 0 | MM INCH | | CHK'D: NMANE02 2019/07/09 | | PRODUCT CUSTOMER DRAWING | |
| ▽ = 0 | 4 PLACES ± | ± | APPR: MRAMAKRISHNA 2019/07/09 | | DOCUMENT NUMBER | |
| ▽ = 0 | 3 PLACES ± | ± | INITIAL REVISION: | | DOC TYPE DOC PART REVISION | |
| ▽ = 0 | 2 PLACES ± | 0.2 ± | DRWN: GMENARLY 2015/04/15 | | SD-87831-0001 PSD 001 A16 | |
| ▽ = 0 | 1 PLACE ± | ± | APPR: KHLIM 2015/06/29 | | MATERIAL NUMBER CUSTOMER | |
| ▽ = 0 | 0 PLACES ± | ± | THIRD ANGLE PROJECTION | | SEE TABLE GENERAL MARKET | |
| ▽ = 0 | ANGULAR TOL ± 3.0° | | DRAWING SERIES | | SHEET NUMBER | |
| ▽ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | A3-SIZE 87831 | | 5 OF 14 | |

8 TO 12 CIRCUITS



VIEW FOR HEADER WITH CENTER POLARIZATION AND DUAL SIDE SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

- MATERIALS:**
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES:** REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION:** PS-87831-027
- PACKAGING SPECIFICATION:** SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH:** A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

| | | | | | |
|---|---|--|--|---|--|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | |
| | DIMENSION UNITS SCALE GENERAL TOLERANCES (UNLESS SPECIFIED) | mm NTS | MM INCH | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | |
| 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.2 1 PLACE ± 0 PLACES ± | ANGULAR TOL ± 3.0° | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIRD ANGLE PROJECTION DRAWING SERIES MATERIAL NUMBER CUSTOMER | INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29 | PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER DOC TYPE DOC PART REVISION SD-87831-0001 PSD 001 A16 |
| DOCUMENT STATUS P1 RELEASE DATE 2019/07/09 06:47:12 | | | | | SHEET NUMBER 6 OF 14 |

8 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | | | | | | | | |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|------|-------|------|-----|-----|------|-----------|-----|-----|-----|-----|------|------|------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H | | | | | | | |
| 8 | 87831-0819 | N.A | N.A | 1 | N.A | N.A | YES | N.A | YES | N.A | 6.00 | 8.85 | 10.65 | 9.00 | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | | |
| | 87831-0820 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0821 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0836 | N.A | N.A | 4 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0828 | N.A | N.A | 2 | N.A | N.A | YES | N.A | YES | YES | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | 2.50 | | |
| | 87831-0829 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0841 | N.A | 87831-5551 | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | 2.50 | |
| | 87831-0842 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-5841 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-5441 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | 3.50 | |
| | 87831-5442 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-5541 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | 2.80 | |
| | 87831-5542 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-5741 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | 4.70 |
| | 87831-5742 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0832 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | YES | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | 2.50 |
| | 87831-0843 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-0844 | N.A | N.A | 3 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | 2.50 |
| 87831-0845 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-0846 | N.A | N.A | 3 | N.A | YES | N.A | YES | N.A | YES | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | 2.50 | | | | | | | |

PLATING OPTIONS:

- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.


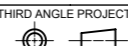
| | | |
|-----------------------------------|---|-----------------|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | |
| | DIMENSION UNITS | SCALE |
| ▽ = 0 | mm | NTS |
| ▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | |
| ▽ = 0 | MM | INCH |
| ▽ = 0 | 4 PLACES ± | ± |
| ▽ = 0 | 3 PLACES ± | ± |
| ▽ = 0 | 2 PLACES ± | 0.2 ± |
| ▽ = 0 | 1 PLACE ± | ± |
| ▽ = 0 | 0 PLACES ± | ± |
| ▽ = 0 | ANGULAR TOL ± | 3.0° |
| ■ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | |
| ▽ = 0 | THIRD ANGLE PROJECTION | DRAWING |
| CURRENT REV DESC: ADDED BTB DIST. | | SERIES |
| EC NO: 619055 | | MATERIAL NUMBER |
| DRWN: NMANE02 2019/03/25 | | CUSTOMER |
| CHK'D: NMANE02 2019/07/09 | | GENERAL MARKET |
| APPR: MRAMAKRISHNA 2019/07/09 | | SHEET NUMBER |
| INITIAL REVISION: | | 7 OF 14 |
| DRWN: GMENARLY 2015/04/15 | | |
| APPR: KHLIM 2015/06/29 | | |
| DOCUMENT NUMBER | | |
| SD-87831-0001 | | |
| DOC TYPE | | |
| PSD | | |
| DOC PART | | |
| 001 | | |
| REVISION | | |
| A16 | | |

10 TO 12 CIRCUITS

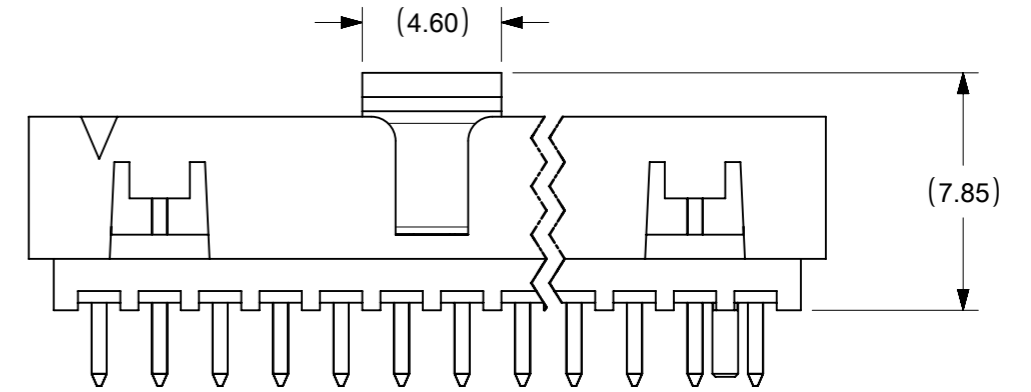
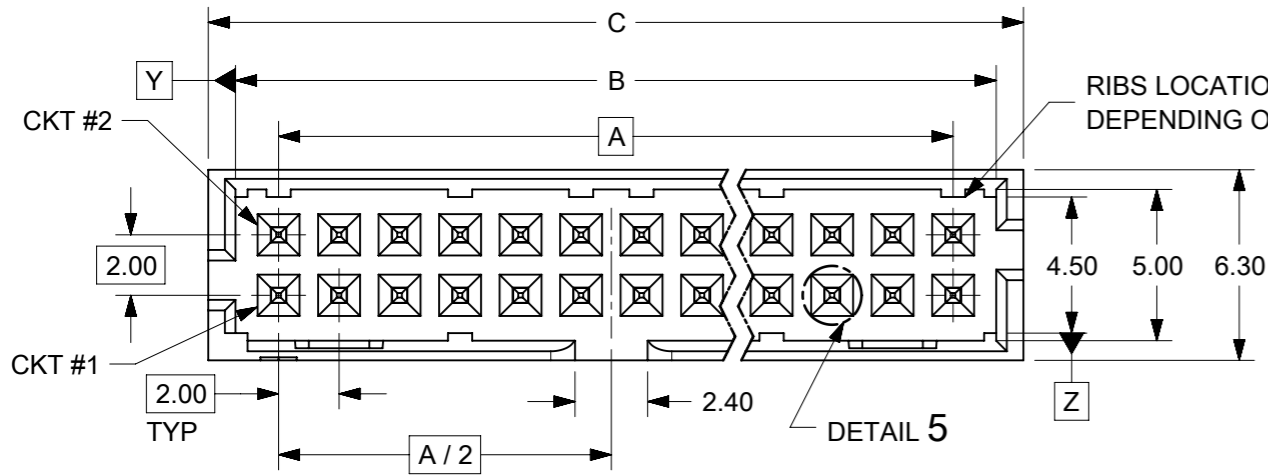
| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | | | | | | | | |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-------|-----------|-------|-------|-------|-----|------|-----------|-----------|-----|-----|-----|------|------|--|-----|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H | | | | | | | |
| 10 | 87831-1019 | N.A | N.A | 1 | N.A | N.A | YES | N.A | YES | N.A | 8.00 | 10.85 | 12.65 | 11.00 | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | | |
| | 87831-1020 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1021 | N.A | 87831-5562 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1036 | N.A | N.A | 4 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1010 | N.A | 87831-5561 | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1011 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1028 | N.A | N.A | 2 | N.A | N.A | YES | N.A | YES | YES | | | | | | N.A | N.A | | N.A | N.A | N.A | 4.00 | 2.50 | 3.60 ^{+0.15} _{-0.10} | |
| | 87831-1029 | N.A | 87831-5557 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1035 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1041 | N.A | N.A | 2 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| | 87831-1042 | N.A | 87831-5553 | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1032 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1043 | N.A | N.A | 2 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| | 87831-1044 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | |
| | 87831-1045 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | |
| 87831-1046 | N.A | N.A | 3 | N.A | YES | N.A | YES | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | | | | | | | |
| 87831-1219 | N.A | N.A | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1220 | N.A | 87831-5556 | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1221 | N.A | N.A | 3 | N.A | N.A | YES | N.A | YES | N.A | 10.00 | 12.85 | 14.65 | 13.00 | N.A | N.A | 2.50 | 3.60±0.20 | | | | | | | | |
| 87831-1236 | N.A | N.A | 4 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1228 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1229 | N.A | 87831-5558 | 3 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1258 | N.A | (A13) 87831-5567 | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1241 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1242 | N.A | N.A | 3 | N.A | YES | YES | N.A | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | N.A | |
| 87831-1255 | 87831-1256 | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1232 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1243 | N.A | N.A | 2 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | N.A | |
| 87831-1244 | N.A | N.A | 3 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1245 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1246 | N.A | N.A | 3 | N.A | YES | N.A | YES | N.A | N.A | | | | | | N.A | N.A | | N.A | N.A | N.A | N.A | N.A | N.A | N.A | |
| 87831-1255 | 87831-1256 | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 87831-1232 | N.A | N.A | 2 | | | | | | | | | | | | | | | | | | | | | | |

PLATING OPTIONS:

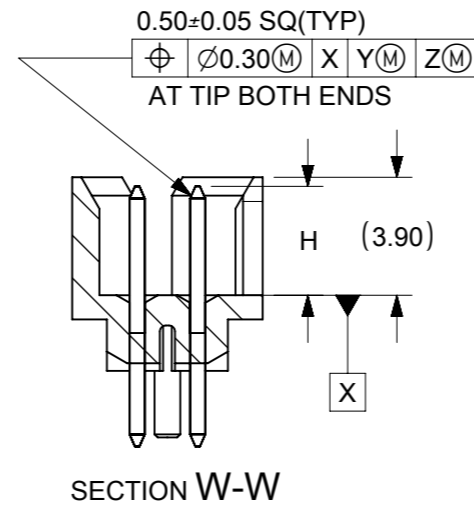
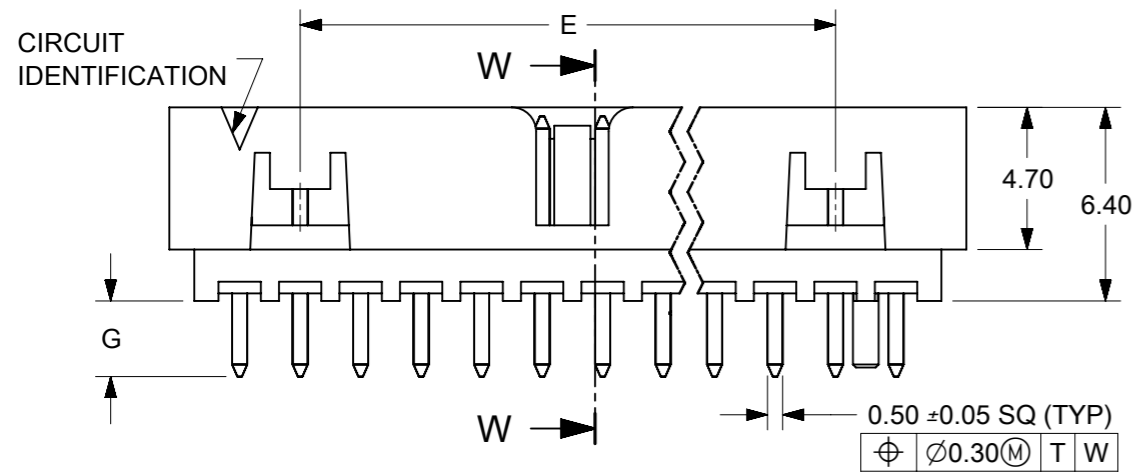
- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

| | | | | | | | | | | | |
|---|---|---------|-------|--------|--|-------------------------------|---------------------------|----------------|--|--------------|--|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | |
| | DIMENSION UNITS | | SCALE | | CURRENT REV DESC: ADDED BTB DIST. | | | | | | |
| | mm | | NTS | |  MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING | | | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | | | | | |
| ▽ = 0 | 4 PLACES | ± | | MM | INCH | EC NO: 619055 | | | | | |
| ▽ = 0 | 3 PLACES | ± | | | | DRWN: NMANE02 2019/03/25 | | | | | |
| ▽ = 0 | 2 PLACES | ± | 0.2 | | | CHK'D: NMANE02 2019/07/09 | | | | | |
| ▽ = 0 | 1 PLACE | ± | | | | APPR: MRAMAKRISHNA 2019/07/09 | | | | | |
| ☒ = 0 | 0 PLACES | ± | | | | INITIAL REVISION: | | | | | |
| ■ = 0 | ANGULAR TOL ± 3.0° | | | | | | DRWN: GMENARLY 2015/04/15 | | | | |
| ▽ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | | | APPR: KHLIM 2015/06/29 | | | | |
| THIRD ANGLE PROJECTION | | DRAWING | | SERIES | | MATERIAL NUMBER | | CUSTOMER | | SHEET NUMBER | |
|  | | A3-SIZE | | 87831 | | SEE TABLE | | GENERAL MARKET | | 8 OF 14 | |

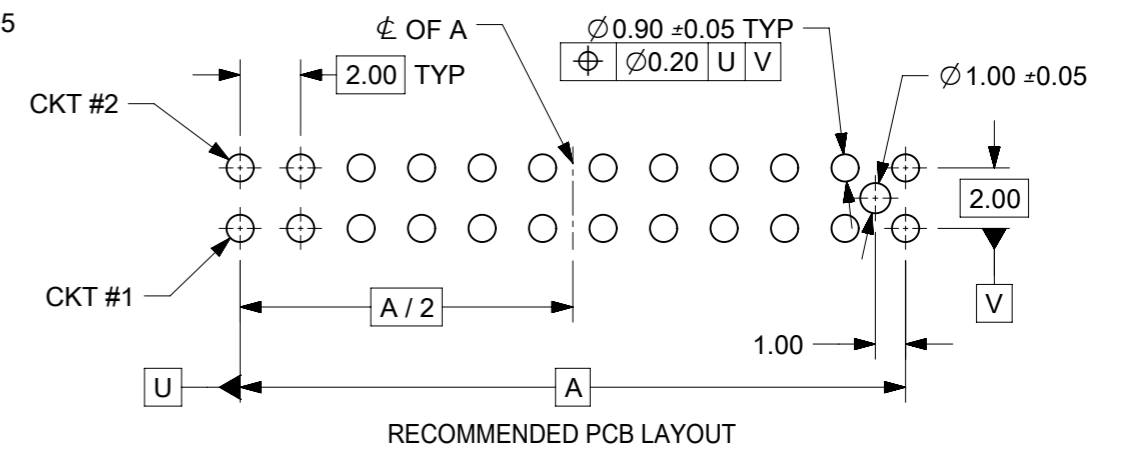
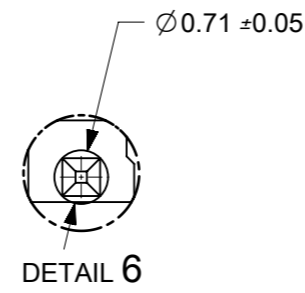
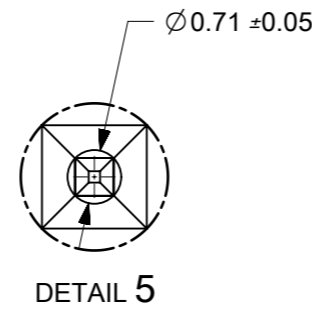
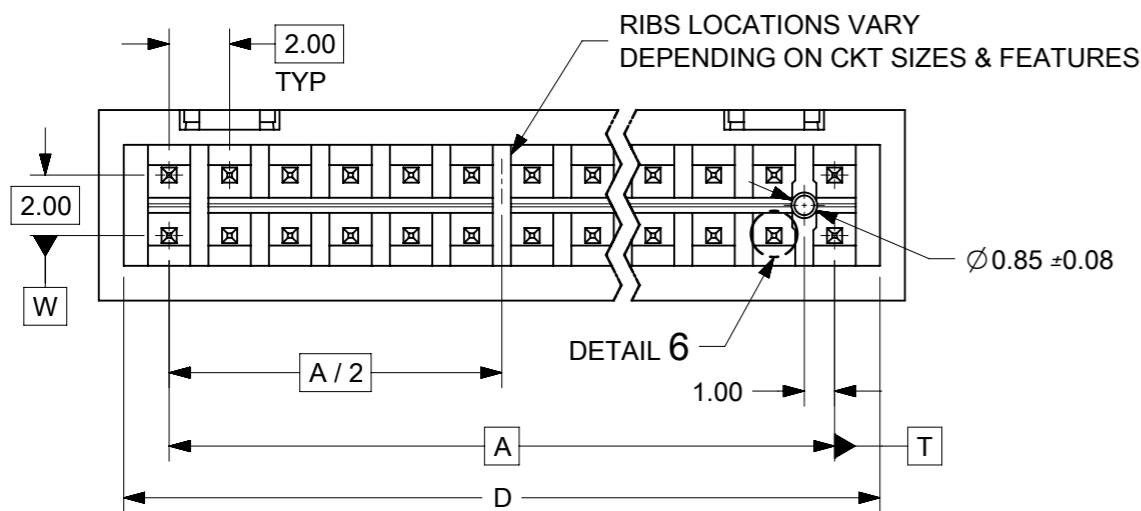
14 TO 50 CIRCUITS



VIEW FOR HEADER WITH CAP



SECTION W-W



RECOMMENDED PCB LAYOUT

NOTES:

- MATERIALS:**
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES:** REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION:** PS-87831-027
- PACKAGING SPECIFICATION:** SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH:** A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

| | | | | | | |
|---------|---|-------|-----------------------------------|---------|--|--------------------------|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | | |
| | DIMENSION UNITS | SCALE | | | | |
| ▽ = 0 | mm | NTS | | | MILLIGRID | |
| ▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | |
| ▽ = 0 | | MM | INCH | | | PRODUCT CUSTOMER DRAWING |
| ▽ = 0 | 4 PLACES ± | ± | | | DOCUMENT NUMBER | |
| ▽ = 0 | 3 PLACES ± | ± | | | DOC TYPE | |
| ▽ = 0 | 2 PLACES ± | 0.2 | | | DOC PART | |
| ▽ = 0 | 1 PLACE ± | ± | | | REVISION | |
| ▽ = 0 | 0 PLACES ± | ± | | | SD-87831-0001 | |
| ▽ = 0 | ANGULAR TOL ± | 3.0° | | | PSD | 001 |
| ■ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER |
| ▽ = 0 | | | | A3-SIZE | 87831 | CUSTOMER |
| | | | | | SEE TABLE | GENERAL MARKET |
| | | | | | | SHEET NUMBER |
| | | | | | | 9 OF 14 |

14 TO 20 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-------|-----|------|-----------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H |
| 14 | 87831-1419 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 12.00 | 14.85 | 16.65 | 15.00 | 8.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-1420 | 87831-1430 | 87831-5554 | 2 | | | | | | | | | | | | | | |
| | 87831-1421 | N.A | 87831-5560 | 3 | | | | | | | | | | | | | | |
| | 87831-1436 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-1428 | N.A | (A14) 87831-5564 | 2 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-1429 | N.A | 87831-5563 | 3 | | | | | | | | | | | | | | |
| | 87831-1435 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 3.50 | |
| | 87831-1410 | N.A | N.A | 2 | YES | N.A | YES | N.A | YES | N.A | | | | | | | 3.50 | |
| 87831-1411 | N.A | N.A | 3 | | | | | | | | | | | | | | | |
| 16 | 87831-1619 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 14.00 | 16.85 | 18.65 | 17.00 | 10.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-1620 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-1621 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-1636 | N.A | N.A | 4 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-1628 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-1629 | N.A | 87831-5559 | 3 | | | | | | | | | | | | | | |
| | 87831-1635 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| 18 | 87831-1819 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 16.00 | 18.85 | 20.65 | 19.00 | 12.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-1820 | N.A | 87831-5566 | 2 | | | | | | | | | | | | | | |
| | 87831-1821 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-1836 | N.A | N.A | 4 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-1828 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-1829 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| 20 | 87831-2019 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 18.00 | 20.85 | 22.65 | 21.00 | 14.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-2020 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2021 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2036 | N.A | N.A | 4 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-2028 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2029 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2035 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 3.50 | |
| | 87831-2010 | N.A | N.A | 2 | YES | N.A | YES | N.A | YES | N.A | | | | | | | 3.50 | |
| | 87831-2011 | N.A | (A13) 87831-2041 | 3 | | | | | | | | | | | | | | |

PLATING OPTIONS:

- 1 - 0.05-0.13µm/2-5µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µm GOLD IN CONTACT AREA AND 1.88µm/75µm MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µm MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µm MIN. MATTE TIN OVER 1.25µm/50µm MIN. NICKEL OVERALL.


| | | | | |
|---|---|---|---|---|
| SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | SCALE mm NTS | CURRENT REV DESC: ADDED BTB DIST. | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | |
| | DIMENSION UNITS MM INCH | | PRODUCT CUSTOMER DRAWING | |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | DOCUMENT NUMBER SD-87831-0001 | |
| THIRD ANGLE PROJECTION | | DRWING: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29 | | DOC TYPE DOC PART REVISION PSD 001 A16 |
| MATERIAL NUMBER SEE TABLE | | CUSTOMER GENERAL MARKET | | SHEET NUMBER 10 OF 14 |

22 TO 30 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | ASSY P/N WITHOUT CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | |
|------------|------------------------------|---------------------------|--------------------------|-----------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-------|-----|------|-----------|
| | | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H |
| 22 | 87831-2219 | N.A | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 20.00 | 22.85 | 24.65 | 23.00 | 16.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-2220 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2221 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2236 | N.A | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-2228 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2229 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| 24 | 87831-2419 | N.A | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 22.00 | 24.85 | 26.65 | 25.00 | 18.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-2420 | N.A | N.A | 87831-7420 | 2 | | | | | | | | | | | | | | |
| | 87831-2421 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2436 | N.A | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-2428 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2429 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2435 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2445 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| 87831-2410 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | | |
| 26 | 87831-2619 | N.A | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 24.00 | 26.85 | 28.65 | 27.00 | 20.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-2620 | 87831-2630 | 87831-5555 | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2621 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2636 | N.A | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-2628 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2629 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2610 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| 28 | 87831-2819 | N.A | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 26.00 | 28.85 | 30.65 | 29.00 | 22.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-2820 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2821 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-2836 | N.A | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-2828 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-2829 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| 30 | 87831-3019 | N.A | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 28.00 | 30.85 | 32.65 | 31.00 | 24.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-3020 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3021 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3036 | N.A | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-3028 | N.A | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3029 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3035 | N.A | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3010 | 87831-3030 | 87831-3050 | N.A | 2 | | | | | | | | | | | | | | |

PLATING OPTIONS:

- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.


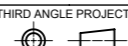
| | | | | | | | | | | |
|---------|---|------------------------|-------|-------------------------------|--|---------------------------|----------------|--------------|----------|----------|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | |
| | DIMENSION UNITS | | SCALE | | CURRENT REV DESC: ADDED BTB DIST. | | | | | |
| | mm | | NTS | |  MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING | | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | | | | |
| ▽ = 0 | 4 PLACES ± | MM | INCH | EC NO: 619055 | | DRWN: NMANE02 2019/03/25 | | | | |
| ▽ = 0 | 3 PLACES ± | | | DRWN: NMANE02 2019/07/09 | | CHK'D: NMANE02 2019/07/09 | | | | |
| ▽ = 0 | 2 PLACES ± 0.2 | | | APPR: MRAMAKRISHNA 2019/07/09 | | INITIAL REVISION: | | | | |
| ▽ = 0 | 1 PLACE ± | | | DRWN: GMENARLY 2015/04/15 | | DOCUMENT NUMBER | | | | |
| ☒ = 0 | ANGULAR TOL ± 3.0° | | | APPR: KHLIM 2015/06/29 | | SD-87831-0001 | | DOC TYPE | DOC PART | REVISION |
| ■ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIRD ANGLE PROJECTION | | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER | | |
| ▽ = 0 | | | | A3-SIZE | 87831 | SEE TABLE | GENERAL MARKET | 11 OF 14 | | |

32 TO 40 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | |
|----------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-------|-----|------|-----------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H |
| 32 | 87831-3219 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 30.00 | 32.85 | 34.65 | 33.00 | 26.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-3220 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3221 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3236 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-3228 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3229 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 34 | 87831-3419 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 32.00 | 34.85 | 36.65 | 35.00 | 28.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-3420 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3421 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3436 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-3428 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3429 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-3435 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 3.50 | |
| 36 | 87831-3619 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 34.00 | 36.85 | 38.65 | 37.00 | 30.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-3620 | N.A | 87831-5564 | 2 | | | | | | | | | | | | | | |
| | 87831-3621 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3636 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-3628 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3629 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 38 | 87831-3819 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 36.00 | 38.85 | 40.65 | 39.00 | 32.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-3820 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3821 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-3836 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-3828 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-3829 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 40 | 87831-4019 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 38.00 | 40.85 | 42.65 | 41.00 | 34.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-4020 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4021 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-4036 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-4028 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4029 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-4010 | N.A | N.A | 2 | YES | N.A | YES | N.A | YES | N.A | | | | | | | 3.50 | |

PLATING OPTIONS:

- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

| | | | | | | | | | | |
|---------|---|-----|-------|--|---|---------|--------|-----------------|----------------|--------------|
| SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | |
| | DIMENSION UNITS | | SCALE | | CURRENT REV DESC: ADDED BTB DIST. | | | | | |
| ▽ = 0 | mm | NTS | |  MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | | | | | | |
| ▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | | | | |
| ▽ = 0 | | | MM | INCH | EC NO: 619055 | | | | | |
| ▽ = 0 | 4 PLACES | ± | | | DRWN: NMANE02 2019/03/25 | | | | | |
| ▽ = 0 | 3 PLACES | ± | | | CHK'D: NMANE02 2019/07/09 | | | | | |
| ▽ = 0 | 2 PLACES | ± | 0.2 | | APPR: MRAMAKRISHNA 2019/07/09 | | | | | |
| ▽ = 0 | 1 PLACE | ± | | | INITIAL REVISION: | | | | | |
| ▽ = 0 | 0 PLACES | ± | | | DRWN: GMENARLY 2015/04/15 | | | | | |
| ▽ = 0 | ANGULAR TOL | | ± | 3.0° | APPR: KHLIM 2015/06/29 | | | | | |
| ■ = 0 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
| ▽ = 0 | | | | |  | A3-SIZE | 87831 | SEE TABLE | GENERAL MARKET | 12 OF 14 |

| | | | | |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2019/07/09 | 06:47:12 |
|-----------------|----|--------------|------------|----------|

42 TO 50 CIRCUITS

| CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS | | SIDE SLOTS | | CENTER POLARIZATION | PEG | DIMENSION | | | | | | | |
|----------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-------|-----|------|-----------|
| | | | | | DUAL | CENTER | DUAL | SINGLE | | | A | B | C | D | E | F | G | H |
| 42 | 87831-4219 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 40.00 | 42.85 | 44.65 | 43.00 | 36.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-4220 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4221 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-4236 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-4228 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4229 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 44 | 87831-4419 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 42.00 | 44.85 | 46.65 | 45.00 | 38.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-4420 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4421 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-4436 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-4428 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4429 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-4435 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 3.50 | |
| 46 | 87831-4619 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 44.00 | 46.85 | 48.65 | 47.00 | 40.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-4620 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4621 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-4636 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-4628 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4629 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 48 | 87831-4819 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 46.00 | 48.85 | 50.65 | 49.00 | 42.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-4820 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4821 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-4836 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-4828 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-4829 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| 50 | 87831-5019 | N.A | N.A | 1 | YES | N.A | YES | N.A | YES | N.A | 48.00 | 50.85 | 52.65 | 51.00 | 44.00 | N.A | 2.50 | 3.60±0.20 |
| | 87831-5020 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-5021 | N.A | N.A | 3 | | | | | | | | | | | | | | |
| | 87831-5036 | N.A | N.A | 4 | | | | | | | | | | | | | | |
| | 87831-5028 | N.A | N.A | 2 | | | | | | | | | | | | | | |
| | 87831-5029 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 2.50 | |
| | 87831-5035 | N.A | N.A | 3 | YES | N.A | YES | N.A | YES | YES | | | | | | | 3.50 | |

PLATING OPTIONS:

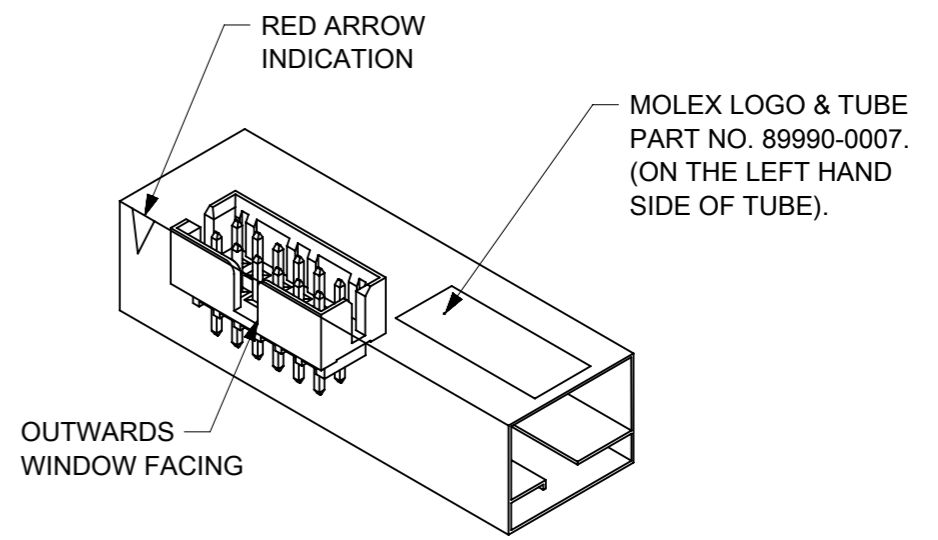
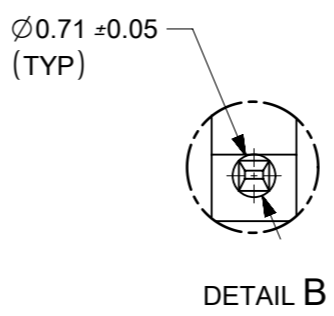
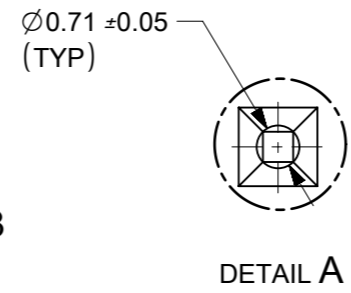
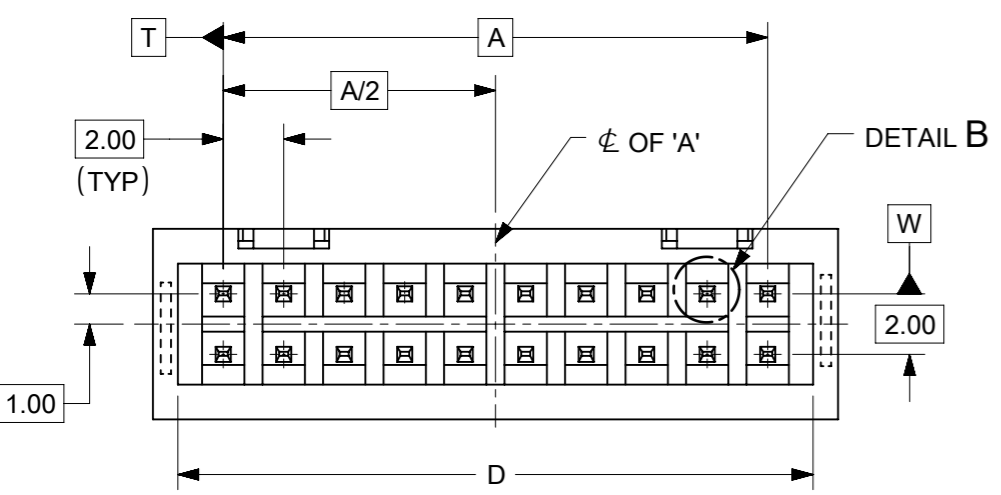
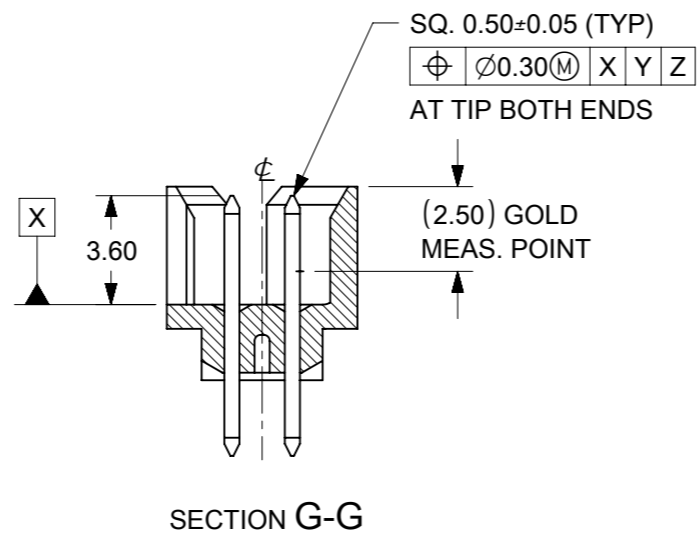
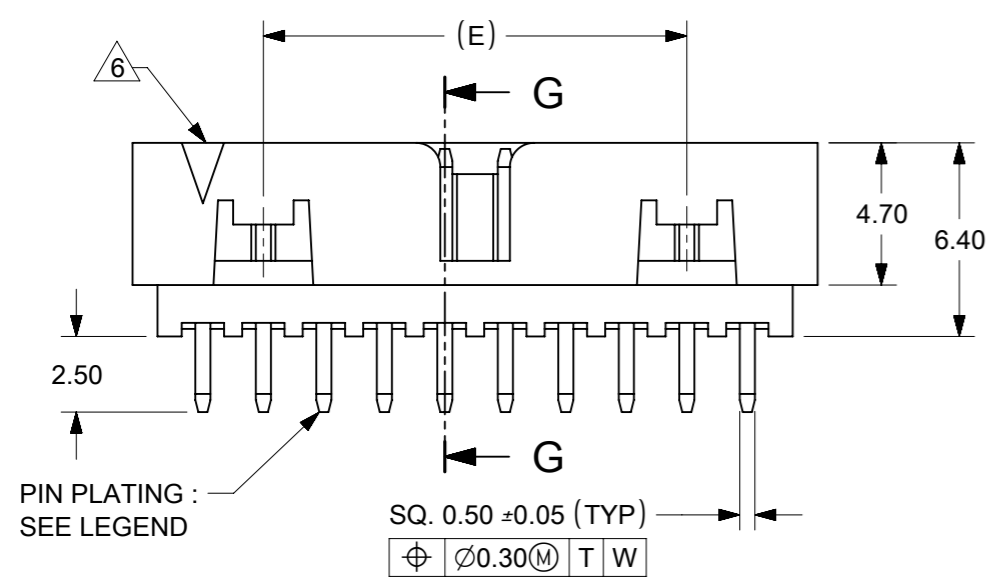
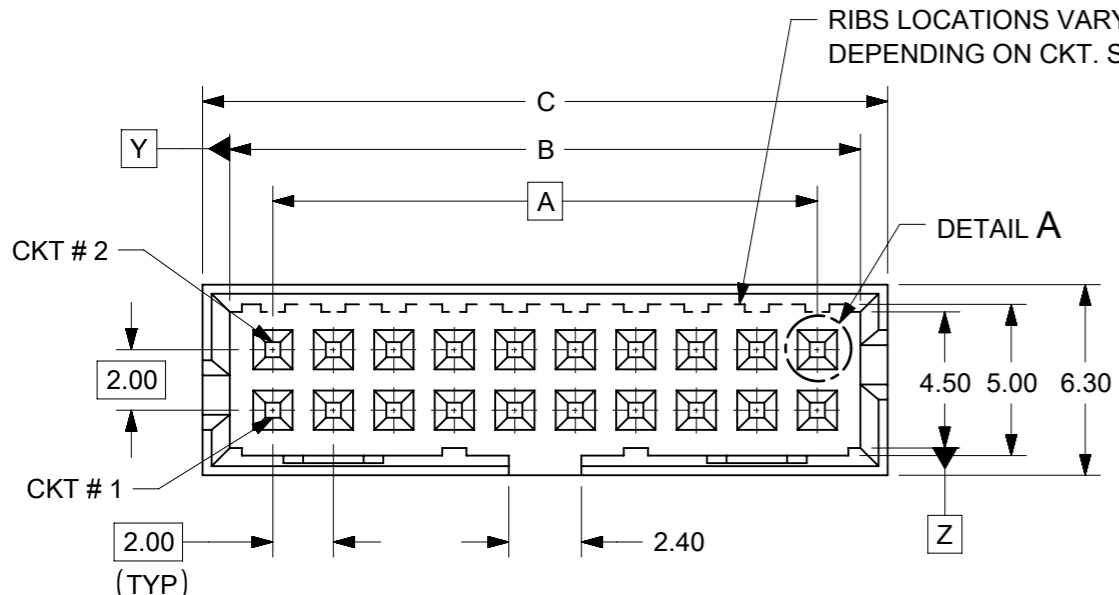
- 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.
- 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

| | | | | | | | |
|--|--|------------------------|---|--------------------------|-----------|--|--|
| SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION DIMENSION UNITS: mm SCALE: NTS CURRENT REV DESC: ADDED BTB DIST. | | MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | PRODUCT CUSTOMER DRAWING | | | |
| | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | | DOCUMENT NUMBER: SD-87831-0001 DOC TYPE: PSD DOC PART: 001 REVISION: A16 | | | | |
| | INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29 | | MATERIAL NUMBER: SEE TABLE CUSTOMER: GENERAL MARKET SHEET NUMBER: 13 OF 14 | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING: A3-SIZE | SERIES: 87831 | SEE TABLE | | |

BOARD TO BOARD (BTB) DISTANCE

| HEADER | MATES WITH (RECEPTACLE) | BTB DIST. | PICTORIAL VIEW |
|--------|-------------------------|-----------|----------------|
| 87831 | 79107 | 6.94 | |
| | 78787 | 6.94 | |
| | 79108 | 6.94 | |
| | 79109 | 7.15 | |
| | 78788 | 7.15 | |

| SYMBOLS = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADDED BTB DIST. | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|----|------|------------|---|---|------------|---|---|------------|-------|---|-----------|---|---|------------|---|---|--|--|
| | DIMENSION UNITS: mm SCALE: NTS | | molex | | | | | | | | | | | | | | | | | | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th></th> <th>MM</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES ±</td> <td>±</td> <td>±</td> </tr> <tr> <td>3 PLACES ±</td> <td>±</td> <td>±</td> </tr> <tr> <td>2 PLACES ±</td> <td>0.2 ±</td> <td>±</td> </tr> <tr> <td>1 PLACE ±</td> <td>±</td> <td>±</td> </tr> <tr> <td>0 PLACES ±</td> <td>±</td> <td>±</td> </tr> </tbody> </table> | | | MM | INCH | 4 PLACES ± | ± | ± | 3 PLACES ± | ± | ± | 2 PLACES ± | 0.2 ± | ± | 1 PLACE ± | ± | ± | 0 PLACES ± | ± | ± | EC NO: 619055 DRWN: NMANE02 2019/03/25 CHK'D: NMANE02 2019/07/09 APPR: MRAMAKRISHNA 2019/07/09 | |
| | | MM | INCH | | | | | | | | | | | | | | | | | | | |
| 4 PLACES ± | ± | ± | | | | | | | | | | | | | | | | | | | | |
| 3 PLACES ± | ± | ± | | | | | | | | | | | | | | | | | | | | |
| 2 PLACES ± | 0.2 ± | ± | | | | | | | | | | | | | | | | | | | | |
| 1 PLACE ± | ± | ± | | | | | | | | | | | | | | | | | | | | |
| 0 PLACES ± | ± | ± | | | | | | | | | | | | | | | | | | | | |
| ANGULAR TOL ± 3.0° | | PRODUCT CUSTOMER DRAWING | | | | | | | | | | | | | | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | INITIAL REVISION: DRWN: DRWN BY XXXX/XX/XX APPR: APPR BY XXXX/XX/XX | | | | | | | | | | | | | | | | | | | | |
| THIRD ANGLE PROJECTION | | DOCUMENT NUMBER: SD-87831-0001 DOC TYPE: PSD DOC PART: 001 REVISION: A16 | | | | | | | | | | | | | | | | | | | | |
| DRAWING: A3-SIZE SERIES: 87831 | | MATERIAL NUMBER: CUSTOMER: GENERAL MARKET SHEET NUMBER: 14 OF 14 | | | | | | | | | | | | | | | | | | | | |




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

- NOTES:
- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
 - MATERIAL :
HOUSING : GLASS-FILLED NYLON, UL94V-0, COLOR BLACK.
PIN : 0.50mm SQ. PHOSPHOR BRONZE.
 - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
 - WITH CENTRE POLARISATION SLOT FOR 87831-6120.
 - NO SIDE LOCKING SLOT FROM 6 TO 12 CKT SIZE.
 - CKT 6 HAS NO IDENTIFICATION TAG.
 - THIS HEADER MATES WITH MOLEX :
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2mm MILLIGRID DUAL ROW IDT, 87568 SERIES.
c) 2mm MILLIGRID DUAL ROW: 79107 (GOLD PLATED), 78787 (TIN PLATED)
 - PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
 - PACKAGING SPECIFICATION : FOR TUBE : PK-87831-001
FOR T&R : PK-87831-300

| | | | | | | | | | |
|---|--------------------|--|---------------------|------------------------|---|------------|--------------|-----------------|--------------------------|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | |
| ADDED BTB DIST. | 2018/06/19 | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION UNITS | | SCALE | | | | |
| | 2019/07/09 | | MM | NTS | MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF | | | | |
| | 2019/07/09 | | 4 PLACES ± | INCH | | | | DATE | PRODUCT CUSTOMER DRAWING |
| | EC NO: 619055 | | DRWN: SCS02 | 3 PLACES ± | DRWN BY | DATE | SERIES | MATERIAL NUMBER | |
| | CHK'D: NMANE02 | | CHK'D: MRAMAKRISHNA | 2 PLACES ± 0.2 | ATSEE | 2003/10/03 | 87831 | SEE TABLE | GENERAL MARKET |
| REV | APPR: MRAMAKRISHNA | 1 PLACES ± | CHK'D BY | DATE | DOCUMENT NUMBER | | | | |
| C4 | | 0 PLACES ± | KCLING | 2003/11/07 | SD-87831-011 | | | | |
| | | ANGULAR TOL = 3.0 | APPR BY | DATE | DOC TYPE | DOC PART | SHEET NUMBER | | |
| | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SKTOH | 2003/11/07 | PSD | 001 | 1 OF 4 | | |
| | | | DRAWING SIZE | THIRD ANGLE PROJECTION | | | | | |
| | | | A3 | | | | | | |

OTHER OPTIONS

| ASSY. P/N IN T&R | ASSY. P/N IN TUBE | CKT SIZE | PLATING OPTIONS | VOID POSITION | DIMENSIONS | | | | | |
|---------------------|--|-------------|--------------------|------------------|------------|-------|-------|-------|-------|------|
| | | | | | A | B | C | D | E | (G) |
| ---- | 87831-5120 | 12 | 2 | 1 | 10.00 | 12.85 | 14.65 | 13.00 | ---- | ---- |
| ---- | 87831-5220 | 44 | 2 | 20 | 42.00 | 44.85 | 46.65 | 45.00 | 38.00 | ---- |
| ---- | 87831-5320 | 24 | 2 | 13 | 22.00 | 24.85 | 26.65 | 25.00 | 18.00 | ---- |
| ---- | 87831-5420 | 34 | 2 | 3 | 32.00 | 34.85 | 36.65 | 35.00 | 28.00 | ---- |
| ---- | 87831-5520 | 20 | 2 | 20 | 18.00 | 20.85 | 22.65 | 21.00 | 14.00 | ---- |
| ---- | 87831-5620 | 28 | 2 | 13 | 26.00 | 28.85 | 30.65 | 29.00 | 22.00 | ---- |
| ---- | 87831-5720 | 34 | 2 | 15 | 32.00 | 34.85 | 36.65 | 35.00 | 28.00 | ---- |
| ---- | 87831-5820 | 40 | 2 | 25 | 38.00 | 40.85 | 42.65 | 41.00 | 34.00 | ---- |
| ---- | 87831-5920 | 20 | 2 | 13 | 18.00 | 20.85 | 22.65 | 21.00 | 14.00 | ---- |
| ---- | 87831-6020 | 24 | 2 | 20 | 22.00 | 24.85 | 26.65 | 25.00 | 18.00 | ---- |
| ---- | 87831-6120  | 6 | 2 | 1 | 4.00 | 6.85 | 8.65 | 7.00 | ---- | ---- |
| ---- | 87831-6320 | 20 | 2 | 19 | 18.00 | 20.85 | 22.65 | 21.00 | 14.00 | ---- |


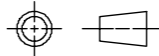
PART NUMBER LEGEND:

87831 - * * * *

PLATING OPTION 

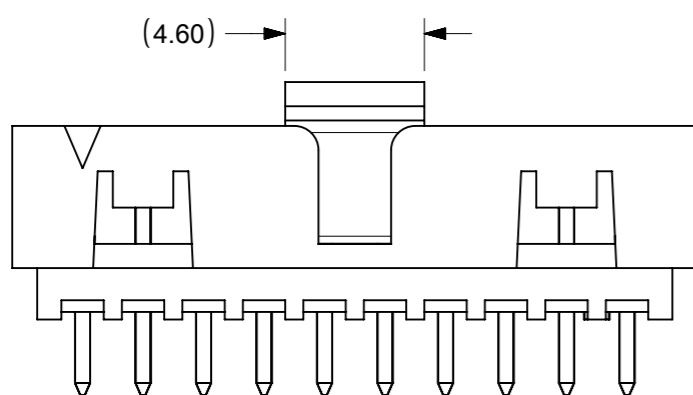
| | |
|----------|---|
| OPTION 1 | **19 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. |
| OPTION 2 | **20 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. |
| OPTION 3 | **21 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. |
| OPTION 4 | **36 - 2.50µm/100µin MIN. TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL. |

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

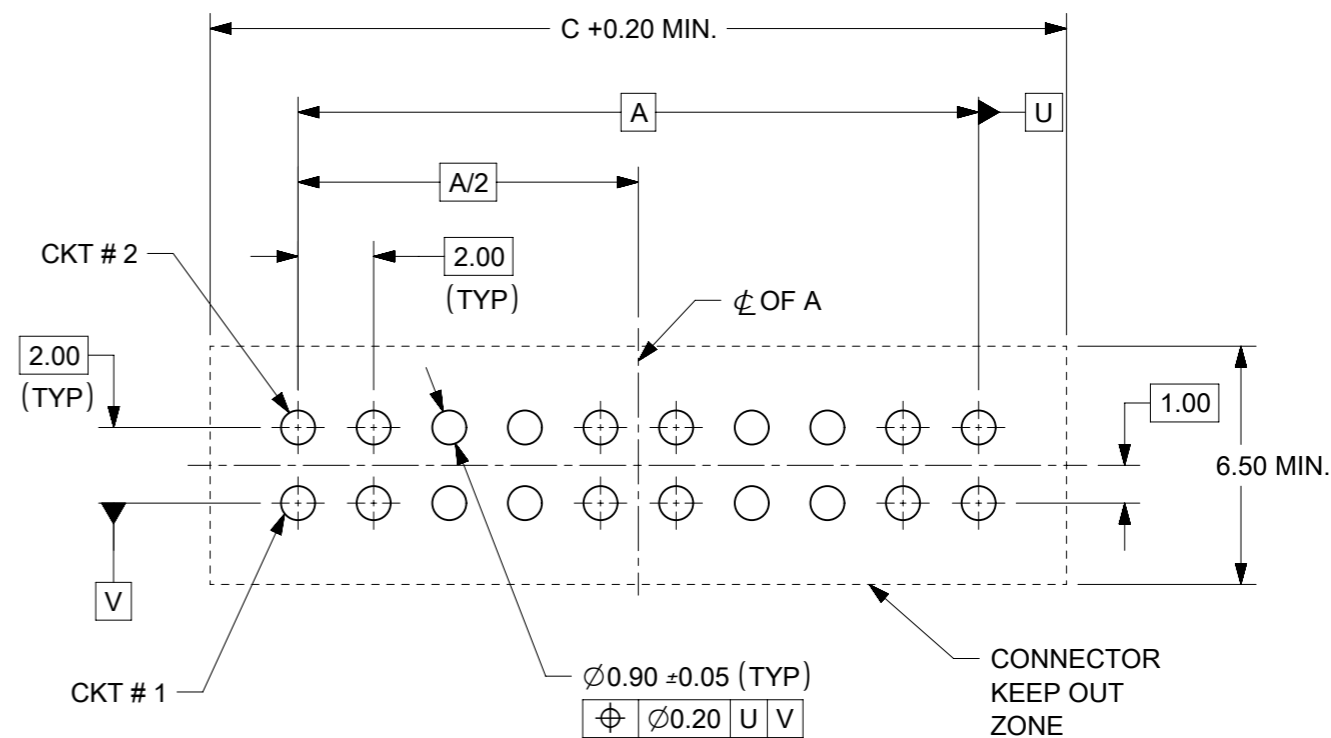
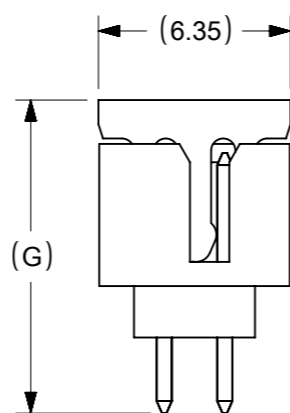
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|--|------------|------------|-------------------|---------------------------------------|--|-----------------|------------------------|--------|----|---|---|--|-----------------|--|----------------|--|--------------|--|
| ADDED BTB DIST. EC NO: 619055 DRWN: SCS02 CHKD: NMANE02 REV APPR: MRAMAKRISHNA | 2018/06/19 | 2019/07/09 | 2019/07/09 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION UNITS | | SCALE | |  | | | | | | | | |
| | | | | MM | INCH | MM | NTS | | | | | | | | | | | |
| | | | | 4 PLACES ± | ± | DRWN BY | DATE | ATSEE | | 2003/10/03 | | MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF | | | | | | |
| | | | | 3 PLACES ± | ± | CHK'D BY | DATE | KCLING | | 2003/11/07 | | | | | | | | |
| | | | | 2 PLACES ± | 0.2 | APPR BY | DATE | SKTOH | | 2003/11/07 | | PRODUCT CUSTOMER DRAWING | | | | | | |
| | | | 1 PLACES ± | ± | DRAWING SIZE | | THIRD ANGLE PROJECTION | | A3 | |  | | | | | | | |
| | | | 0 PLACES ± | ± | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | | | | | | | | | | |
| | | | ANGULAR TOL = 3.0 | | | | | | | | SERIES | | MATERIAL NUMBER | | CUSTOMER | | | |
| | | | | | | | | | | | 87831 | | SEE TABLE | | GENERAL MARKET | | | |
| | | | | | | | | | | | DOCUMENT NUMBER | | DOC TYPE | | DOC PART | | SHEET NUMBER | |
| | | | | | | | | | | | SD-87831-011 | | PSD | | 001 | | 2 OF 4 | |

| | | | | |
|----------------|----|--------------|------------|----------|
| RELEASE STATUS | P1 | RELEASE DATE | 2019/07/09 | 06:47:14 |
|----------------|----|--------------|------------|----------|

CAP INFORMATION



ILLUSTRATED VIEWS WITH CAP

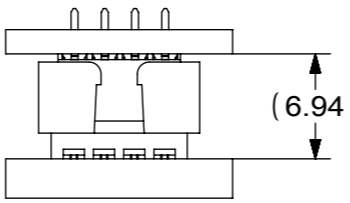
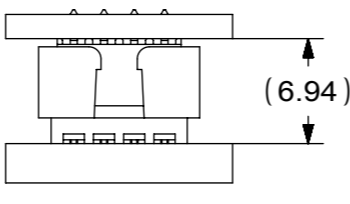
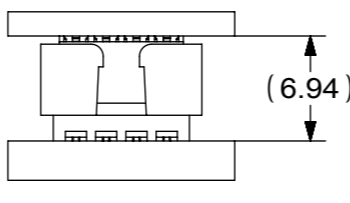
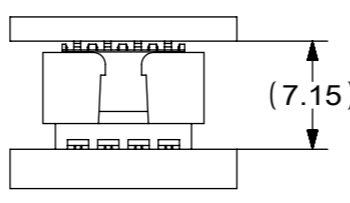
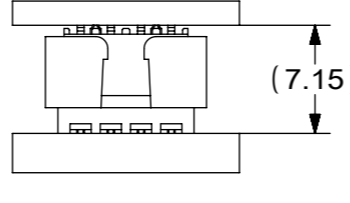


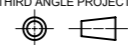
RECOMMENDED PCB PATTERN

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

| | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|------------------------------|--|--------------------------|-----------------|------------------------|
| ADDED BTB DIST. EC NO: 619055 DRWN: SCS02 CHK'D: NMANE02 REV APPR: MRAMAKRISHNA | 2018/06/19 2019/07/09 2019/07/09 | | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION UNITS MM NTS | | SCALE MM NTS | | | | | |
| | 4 PLACES ± ± | | DRWN BY ATSEE | | DATE 2003/10/03 | | MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF | | | | | |
| | 3 PLACES ± ± | | CHK'D BY KCLING | | DATE 2003/11/07 | | | | | PRODUCT CUSTOMER DRAWING | | |
| | 2 PLACES ± 0.2 ± | | APPR BY SKTOH | | DATE 2003/11/07 | | SERIES 87831 | MATERIAL NUMBER SEE TABLE | | | | |
| | 1 PLACES ± ± | | DRAWING SIZE A3 | | THIRD ANGLE PROJECTION | | DOCUMENT NUMBER SD-87831-011 | | | DOC TYPE PSD | DOC PART 001 | SHEET NUMBER 3 OF 4 |
| | 0 PLACES ± ± | | ANGULAR TOL = 3.0 | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | | | | |

BOARD TO BOARD (BTB) DISTANCE

| HEADER | MATES WITH (RECEPTACLE) | BTB DIST. | PICTORIAL VIEW |
|--------|-------------------------|-----------|---|
| 87831 | 79107 | 6.94 |  |
| | 78787 | 6.94 |  |
| | 79108 | 6.94 |  |
| | 79109 | 7.15 |  |
| | 78788 | 7.15 |  |

| | | | | | | | | | | | | | |
|---|--|--------|--|---|--|--------------------|--|--|--|---|--|------------------------|--|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | | | | |
| DIMENSION UNITS | | SCALE | | CURRENT REV DESC: ADDED BTB DIST. | | | | | | molex | | | |
| mm | | NTS | | | | | | | | | | | |
| GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | EC NO: 619055 | | 2018/06/19 | | MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF | | | | | |
| 4 PLACES | | ± | | DRWN: SCS02 | | 2019/07/09 | | | | | | | |
| 3 PLACES | | ± | | CHK'D: NMANE02 | | 2019/07/09 | | PRODUCT CUSTOMER DRAWING | | | | | |
| 2 PLACES | | ± 0.2 | | APPR: MRAMAKRISHNA | | 2019/07/09 | | | | | | | |
| 1 PLACE | | ± | | INITIAL REVISION: | | | | DOCUMENT NUMBER SD-87831-011 | | | | | |
| 0 PLACES | | ± | | DRWN: DRWN BY | | XXXX/XX/XX | | | | | | DOC TYPE PSD | |
| ANGULAR TOL | | ± 3.0° | | APPR: APPR BY | | XXXX/XX/XX | | REVISION C4 | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | THIRD ANGLE PROJECTION  | | DRAWING A3-SIZE | | SERIES 87831 | | MATERIAL NUMBER CUSTOMER GENERAL MARKET | | SHEET NUMBER 4 OF 4 | |