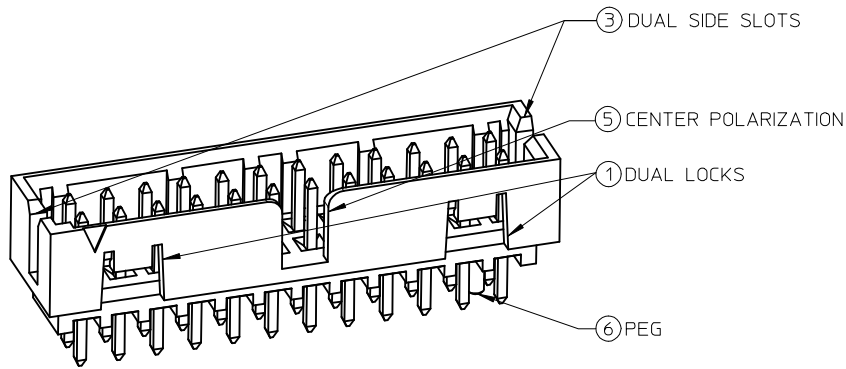
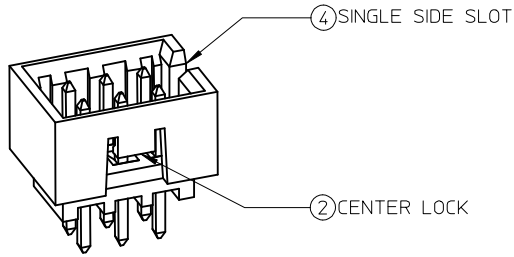


# FEATURES SELECTION GUIDE



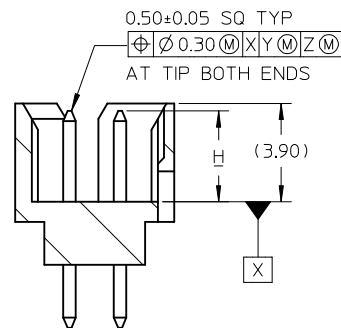
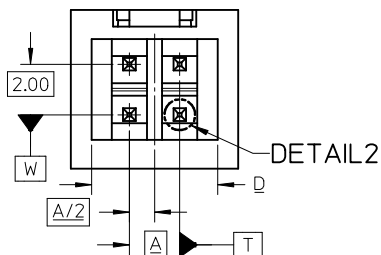
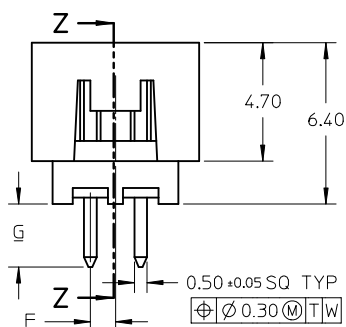
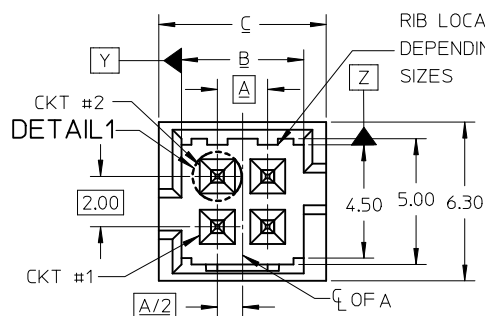
CIRCUIT SIZE	FEATURES						SHEET NO
	FRICTION LOCKS		SIDE SLOTS		5 CENTER POLARIZATION	6 PEG	
	1 DUAL	2 CENTER	3 DUAL	4 SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	YES	N.A	N.A	YES	
	N.A	YES	N.A	YES	N.A	YES	
	N.A	YES	N.A	YES	N.A	YES	
	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

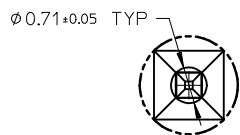
TAPE AND REEL PACKAGING	PK-87831-300
TUBE STANDARD PACKAGING	PK-87831-001
TUBE NON-STANDARD PACKAGING FOR:	PK-87831-002
87831-0419      87831-0645	
87831-5141      87831-0632	
87831-0443      87831-5119	
87831-5241      87831-1011	
87831-5242      87831-1420	
87831-0643	

<b>SEE SHEET 7 &amp; 10</b> EC NO: S2017-0526 DRW:GMENARLY 2017/03/22 CHK'D:CGOH 2017/04/17 APPR:KHLIM 2017/04/17 REV	QUALITY SYMBOLS $\nabla_{\sigma} = 0$ $\nabla_{\sigma} = 0$ $\nabla_{\sigma} = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <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>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>0 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.20	± ---	1 PLACE	± ---	± ---	0 PLACE	± ---	± ---	DIMENSION STYLE <b>MM ONLY</b> DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: CGOH DATE: 2015/06/29 APPROVED BY: KHLIM DATE: 2015/06/29	SCALE: NTS DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER <b>molex</b> MATERIAL NO. SD-87831-0001 DOCUMENT NO. SD-87831-0001 SHEET NO. 1 OF 13
		mm	INCH																				
	4 PLACES	± ---	± ---																				
	3 PLACES	± ---	± ---																				
2 PLACES	± 0.20	± ---																					
1 PLACE	± ---	± ---																					
0 PLACE	± ---	± ---																					
ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				
A7		A3																					

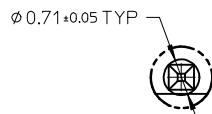
4 CIRCUITS



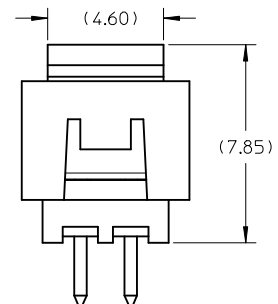
SECTION Z-Z



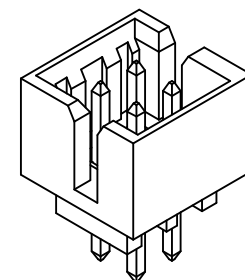
DETAIL1



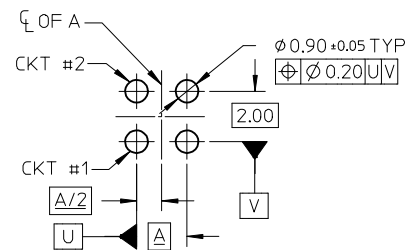
DETAIL2



VIEW FOR  
HEADER WITH CAP



VIEW FOR HEADER  
WITH ONLY DUAL SLOTS



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)

SEE SHEET 7 & 10 EC NO: S2017-0526 DRWN:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHLIM 2017/04/17	QUALITY SYMBOLS F <sub>A</sub> =0 F <sub>E</sub> =0 F <sub>P</sub> =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		mm	INCH	MM ONLY	NTS	METRIC		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	DRAWN BY	DATE	TITLE		
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	CHECKED BY	DATE	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
0 PLACE ± --- ± ---	ANGULAR ± 3 °	APPROVED BY	DATE					
A7	REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE	DOCUMENT NO.		SHEET NO.	
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



4 CIRCUITS

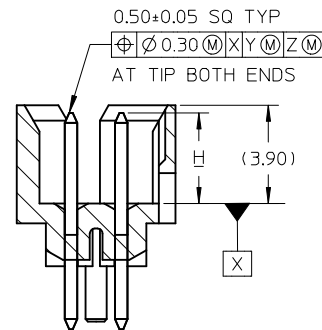
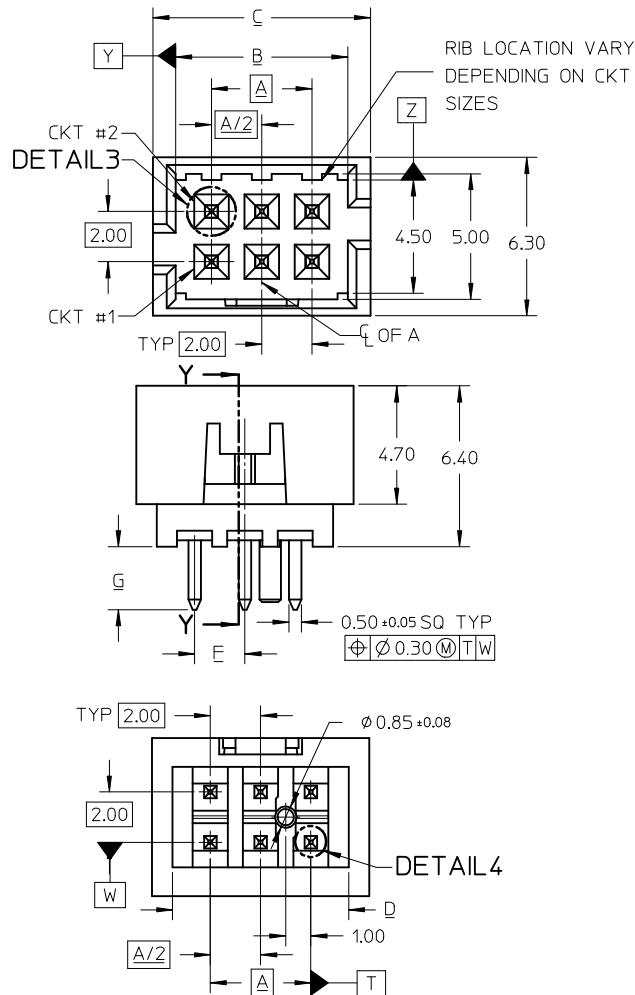
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
4	87831-0419	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	2.00	4.85	6.65	5.00	N.A	N.A	2.50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

PLATING OPTIONS:

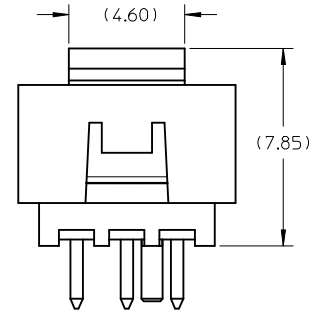
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT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

SEE SHEET 7 & 10 EC NO: S2017-0526 DRW:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHLIM 2017/04/17	DESCRIPTION REV A7	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
		$F_A=0$ $F_G=0$ $F_P=0$	mm    INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: CGOH DATE: 2015/06/29 APPROVED BY: KHLIM DATE: 2015/06/29	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
		ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO.	DOCUMENT NO.	SHEET NO. 3 OF 13		
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

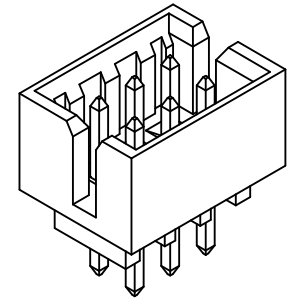
6 CIRCUITS



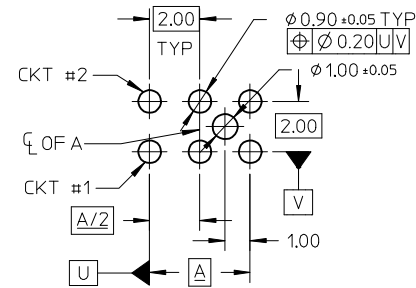
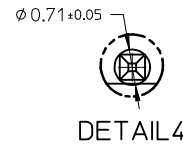
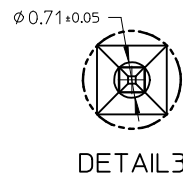
SECTION Y-Y



VIEW FOR HEADER WITH CAP



VIEW FOR HEADER WITH ONLY DUAL 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)

SEE SHEET 7 & 10 IEC NO: S2017-0526 DRAWN: GEMENARLY 2017/03/22 CHKD: CGOH 2017/04/17 APPR: KHLIM 2017/04/17	QUALITY SYMBOLS F=0 E=0 E=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	mm	INCH	DRAWN BY DATE GEMENARLY 2015/04/15		
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	ANGULAR ± 3°		CHECKED BY DATE CGOH 2015/06/29		
		0 PLACE ± --- ± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE KHLIM 2015/06/29			
A7	REV	MATERIAL NO.		SEE TABLE			TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER	
		DOCUMENT NO.		SD-87831-0001			SHEET NO. 4 OF 13	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

6 CIRCUITS

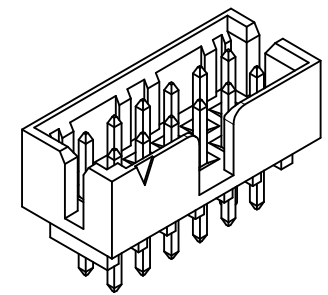
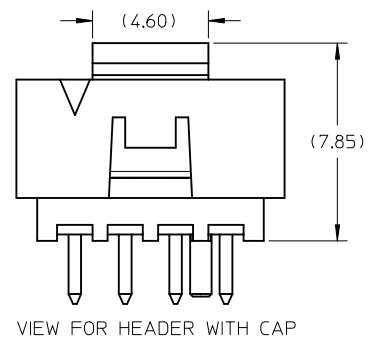
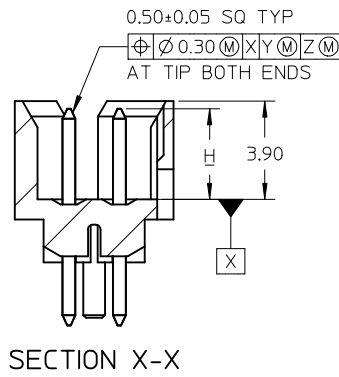
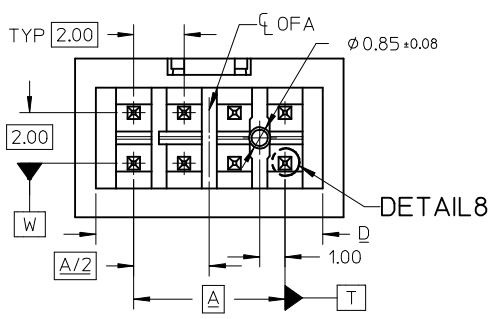
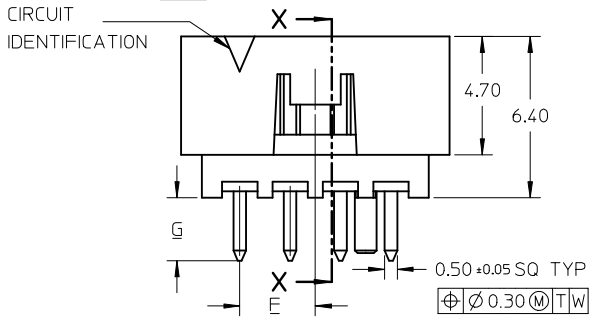
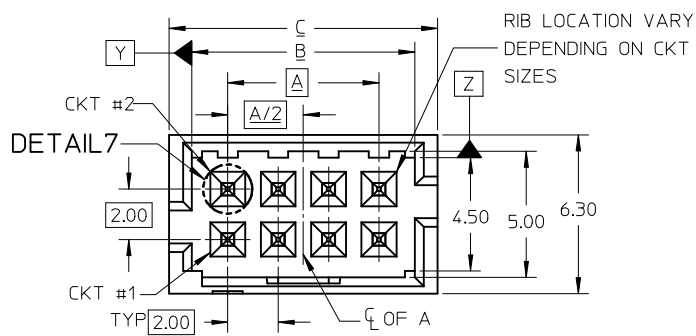
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	N.A	2.50	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														
	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES						N.A	2.50	
	87831-0629	N.A	N.A	3														
	87831-0641	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						2.50		
	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						2.50		
	87831-6241	N.A	N.A	2														
	87831-6242	N.A	N.A	3														
	87831-0643	N.A	N.A	2														
	87831-0644	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A						2.50		
	87831-0645	N.A	N.A	2														
	87831-0646	N.A	N.A	3														
87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES	2.50								
87831-5119	N.A	N.A	1															

PLATING OPTIONS:

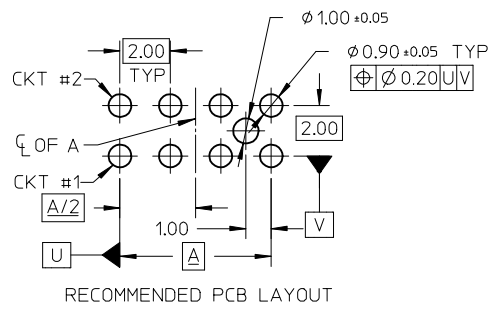
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT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

SEE SHEET 7 & 10 EC NO: S2017-0526 DRWN:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHL IM 2017/04/17	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
		$\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$	mm	INCH	MM ONLY		NTS	METRIC	MILLIGRID		
			4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE			
			3 PLACES	± ---	± ---	GMENARLY	2015/04/15	2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
	2 PLACES	± 0.20	± ---	CHECKED BY	DATE	<b>molex</b>					
	1 PLACE	± ---	± ---	CGOH	2015/06/29					DOCUMENT NO.	
	0 PLACE	± ---	± ---	APPROVED BY	DATE	SD-87831-0001		5 OF 13			
	ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
				MATERIAL NO.							
				SIZE	A3						

8 TO 12 CIRCUITS



VIEW FOR HEADER WITH CENTER POLARIZATION AND DUAL SIDE SLOTS



- 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)

SEE SHEET 7 & 10 EC NO: S2017-0526 DRAWN: GMENARLY 2017/03/22 CHKD: CGOH 2017/04/17 APPR: KHL IM 2017/04/17	QUALITY SYMBOLS FA=0 FE=0 FP=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
			mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER <b>molex</b> DOCUMENT NO. SD-87831-0001 SHEET NO. 6 OF 13		
		4 PLACES	± ---	± ---	CHECKED BY CGOH	DATE 2015/06/29			
		3 PLACES	± ---	± ---	APPROVED BY KHL IM	DATE 2015/06/29			
2 PLACES	± 0.20	± ---	MATERIAL NO.						
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE				
			ANGULAR ± 3 °		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

8 CIRCUITS

F	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
E	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	
	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	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	2.50	
	87831-0842	N.A	N.A	3														
	87831-5841	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	3.50	3.60±0.20
	87831-5441	N.A	N.A	2														
87831-5442	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A	N.A	2.80							
87831-5541	N.A	N.A	2															
87831-5542	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A	N.A	4.70							
87831-5741	N.A	N.A	2															
87831-5742	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A	N.A	2.50							
87831-0832	N.A	N.A	2															
87831-0843	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	N.A	2.50	3.60 <sup>+0.15</sup> <sub>-0.10</sub>						
87831-0844	N.A	N.A	3															
87831-0845	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	N.A	2.50							
87831-0846	N.A	N.A	3															

PLATING OPTIONS:

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

ADD P/N 87831-5841 EC NO: S2017-0526 DRWNG: GEMEARLY 2017/03/22 CHK'D: CGOH 2017/04/17 APPR: KHL IM 2017/04/17	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$F_A = 0$ $F_G = 0$ $F_P = 0$	mm    INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: CGOH DATE: 2015/06/29 APPROVED BY: KHL IM DATE: 2015/06/29	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
		ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO. DOCUMENT NO. SD-87831-0001	SHEET NO. 7 OF 13			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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	N.A	3														
	87831-1036	N.A	N.A	4														
	87831-1010	N.A	N.A	2														
	87831-1011	N.A	N.A	3														
	87831-1028	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						2.50		
	87831-1029	N.A	87831-5557	3														
	87831-1035	N.A	N.A	3	N.A	N.A	YES	N.A	YES	YES						3.50		
	87831-1041	N.A	N.A	2														
	87831-1042	N.A	87831-5553	3	N.A	YES	YES	N.A	N.A	N.A						2.50		
	87831-1032	N.A	N.A	2														
87831-1043	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	2.50								
87831-1044	N.A	N.A	3															
87831-1045	N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES	2.50								
87831-1046	N.A	N.A	3															
12	87831-1219	N.A	N.A	1	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
	87831-1220	N.A	87831-5556	2														
	87831-1221	N.A	N.A	3														
	87831-1236	N.A	N.A	4														
	87831-1228	N.A	N.A	2														
	87831-1229	N.A	87831-5558	3														
	87831-1241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						2.50		
	87831-1242	N.A	N.A	3														
	87831-1255	87831-1256	N.A	2	N.A	YES	YES	N.A	N.A	N.A						3.50		
	87831-1232	N.A	N.A	2														
	87831-1243	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						2.50		
	87831-1244	N.A	N.A	3														
87831-1245	N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES	2.50								
87831-1246	N.A	N.A	3															

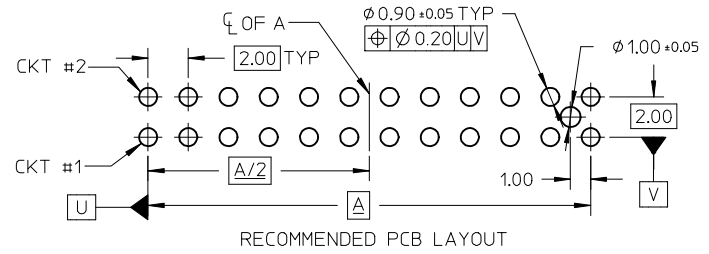
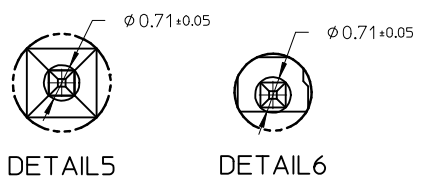
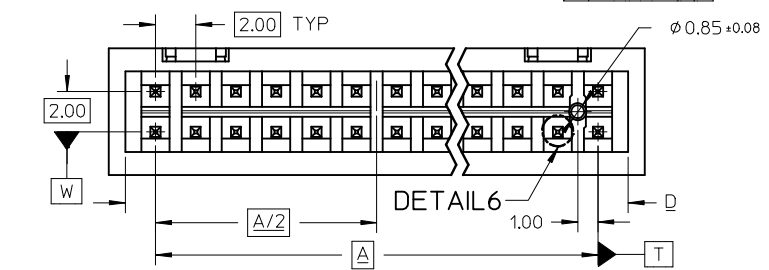
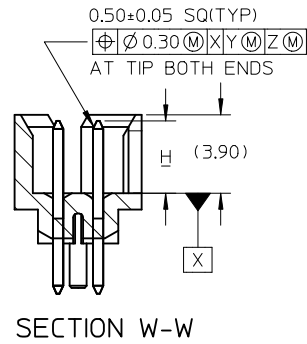
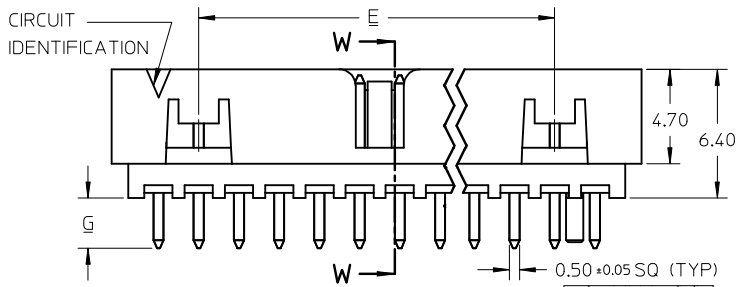
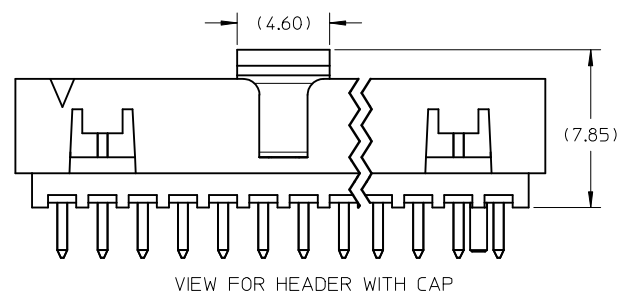
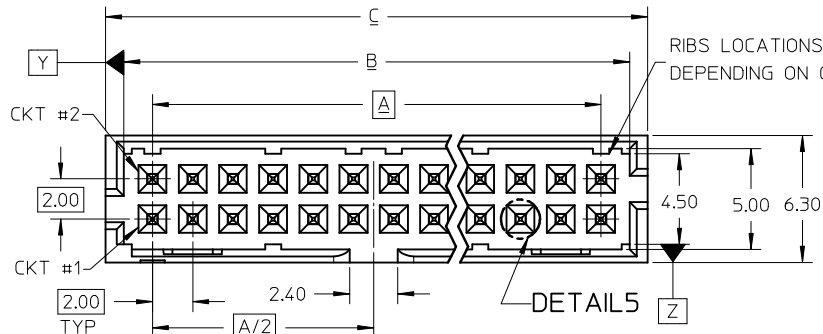
PLATING OPTIONS:

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

SEE SHEET 7 & 10 EC NO: S2017-0526 DRWN:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHL IM 2017/04/17	QUALITY SYMBOLS FA=0 FG=0 FB=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER <b>molex</b> DOCUMENT NO. SD-87831-0001 SHEET NO. 8 OF 13			
		4 PLACES	± ---	± ---	CHECKED BY CGOH	DATE 2015/06/29				
		3 PLACES	± ---	± ---	APPROVED BY KHL IM	DATE 2015/06/29				
			2 PLACES	± 0.20	± ---	MATERIAL NO. SEE TABLE DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				
			1 PLACE	± ---	± ---					
			0 PLACE	± ---	± ---	SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



14 TO 50 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)

SEE SHEET 7 & 10 EC NO: S2017-0526 DRWN: GMENARLY 2017/03/22 CHKD: CGOH 2017/04/17 APPR: KHL IM 2017/04/17	QUALITY SYMBOLS F <sub>A</sub> =0 F <sub>C</sub> =0 F <sub>P</sub> =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
		4 PLACES	± ---	± ---	CHECKED BY CGOH	DATE 2015/06/29				
		3 PLACES	± ---	± ---	APPROVED BY KHL IM	DATE 2015/06/29				
	ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87831-0001		9 OF 13			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

14 TO 20 CIRCUITS

F	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
E	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	N.A	2															
	87831-1429	N.A	N.A	3															
	87831-1435	N.A	N.A	3															
D	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															
	87831-1628	N.A	N.A	2															
	87831-1629	N.A	87831-5559	3															
	87831-1635	N.A	N.A	3															
C	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	N.A	2															
	87831-1821	N.A	N.A	3															
	87831-1836	N.A	N.A	4															
	87831-1828	N.A	N.A	2															
	87831-1829	N.A	N.A	3															
A	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															
	87831-2028	N.A	N.A	2															
	87831-2029	N.A	N.A	3															
	87831-2035	N.A	N.A	3															
	87831-2010	N.A	N.A	2															
87831-2011	N.A	N.A	3																

PLATING OPTIONS:

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

ADD 87831-5560 EC NO: S2017-0526 DRWG:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHLIM 2017/04/17	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
				MM ONLY		NTS	METRIC				
				mm	INCH	DRAWN BY	DATE	TITLE			
				4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	GMENARLY	2015/04/15	MILLIGRID			
				2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	CHECKED BY	DATE	2MM PITCH, THROUGH HOLE			
		0 PLACE ± --- ± ---		CGOH	2015/06/29	VERTICAL SHROUDED HEADER					
		ANGULAR ± 3 °		APPROVED BY	DATE	molex					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		KHLIM	2015/06/29	SD-87831-0001					
				MATERIAL NO.		DOCUMENT NO.					
				SEE TABLE		SHEET NO.					
				SIZE		10 OF 13					
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

22 TO 30 CIRCUITS

F	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						
22	87831-2219	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	2																					
	87831-2221	N.A	N.A	3																					
	87831-2236	N.A	N.A	4																					
	87831-2228	N.A	N.A	2																					
87831-2229	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	2.50															
24	87831-2419	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	2																					
	87831-2421	N.A	N.A	3																					
	87831-2436	N.A	N.A	4																					
	87831-2428	N.A	N.A	2																					
	87831-2429	N.A	N.A	3																					
	87831-2435	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
87831-2410	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A	3.50															
26	87831-2619	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	2																					
	87831-2621	N.A	N.A	3																					
	87831-2636	N.A	N.A	4																					
	87831-2628	N.A	N.A	2																					
	87831-2629	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	2.50
87831-2610	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A	3.50															
28	87831-2819	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	2																					
	87831-2821	N.A	N.A	3																					
	87831-2836	N.A	N.A	4																					
	87831-2828	N.A	N.A	2																					
87831-2829	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	2.50															
30	87831-3019	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	2																					
	87831-3021	N.A	N.A	3																					
	87831-3036	N.A	N.A	4																					
	87831-3028	N.A	N.A	2																					
	87831-3029	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	2.50
	87831-3035	N.A	N.A	3															YES	N.A	YES	N.A	YES	YES	3.50
87831-3010	87831-3030	87831-3050	2	YES	N.A	YES	N.A	YES	N.A	3.50															

PLATING OPTIONS:

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

SEE SHEET 7 & 10 EC NO: S2017-0526 DRWN:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHL IM 2017/04/17	QUALITY SYMBOLS	DESCRIPTION
	$F_{\alpha} = 0$	
	$F_{\beta} = 0$	
	$F_{\gamma} = 0$	
REV	A7	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± ---
2 PLACES	± 0.20 ± ---
1 PLACE	± --- ± ---
0 PLACE	± --- ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
GMENARLY	2015/04/15
CHECKED BY	DATE
CGOH	2015/06/29
APPROVED BY	DATE
KHL IM	2015/06/29
MATERIAL NO.	
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
<b>molex</b>		
DOCUMENT NO.	SHEET NO.	
SD-87831-0001	11 OF 13	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

32 TO 40 CIRCUITS

F	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
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	YES	N.A	YES	N.A	YES	YES							2.50	
87831-3229	N.A	N.A	3															
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													YES	
	87831-3429	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	N.A	2														
	87831-3621	N.A	N.A	3														
	87831-3636	N.A	N.A	4														
	87831-3628	N.A	N.A	2													YES	
	87831-3629	N.A	N.A	3														
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													YES	
	87831-3829	N.A	N.A	3														
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													YES	
	87831-4029	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
	87831-4010	N.A	N.A	2														

PLATING OPTIONS:

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

SEE SHEET 7 & 10 EC NO: S2017-0526 DRW:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHLIM 2017/04/17	QUALITY SYMBOLS FA=0 FG=0 FB=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
				MM ONLY		NTS	METRIC				
				mm	INCH	DRAWN BY	DATE	TITLE			
						GMENARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
				CHECKED BY	DATE						
				CGOH	2015/06/29	<b>molex</b>					
				APPROVED BY	DATE						
				KHLIM	2015/06/29	DOCUMENT NO.		SHEET NO.			
				ANGULAR ± 3 °		SD-87831-0001		12 OF 13			
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE					
				SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
				A3							

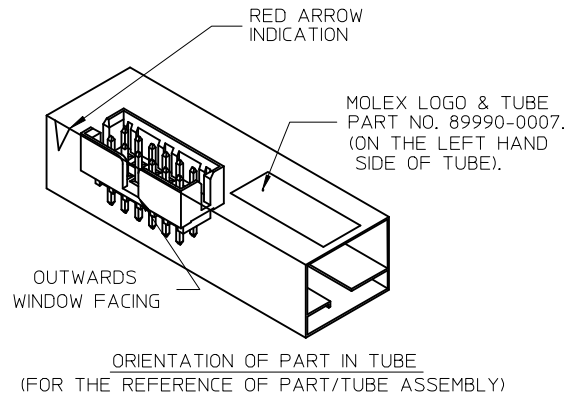
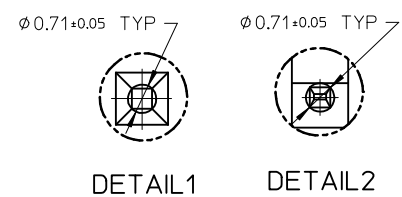
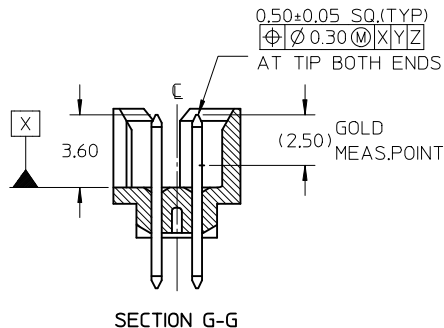
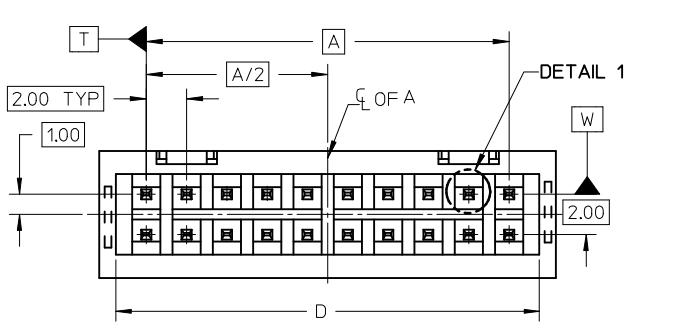
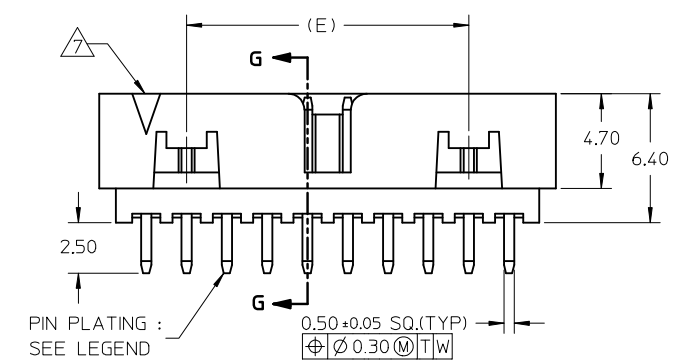
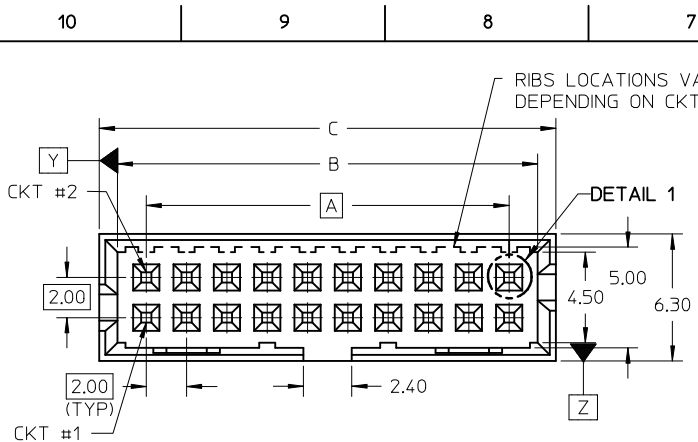
42 TO 50 CIRCUITS

F	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						F
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	
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	YES	N.A	YES	N.A	YES	YES							2.50	
87831-4229	N.A	N.A	3															
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	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4428	N.A	N.A	2														
	87831-4429	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4628	N.A	N.A	2														
	87831-4629	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4828	N.A	N.A	2														
	87831-4829	N.A	N.A	3														
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	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-5029	N.A	N.A	3														
	87831-5035	N.A	N.A	3														

PLATING OPTIONS:

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

SEE SHEET 7 & 10 IEC NO: S2017-0526 DRWNG:GMENARLY 2017/03/22 CHKD:CGOH 2017/04/17 APPR:KHLIM 2017/04/17	QUALITY SYMBOLS $\nabla_{\text{A}}=0$ $\nabla_{\text{E}}=0$ $\nabla_{\text{F}}=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
				MM ONLY		NTS	METRIC				
				mm	INCH	DRAWN BY DATE		TITLE			
						GMENARLY 2015/04/15		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
				3 PLACES ± --- ± ---		CHECKED BY DATE		<b>molex</b> DOCUMENT NO. SD-87831-0001 SHEET NO. 13 OF 13			
				2 PLACES ± 0.20 ± ---		CGOH 2015/06/29					
				1 PLACE ± --- ± ---		APPROVED BY DATE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
				0 PLACE ± --- ± ---		KHLIM 2015/06/29					
				ANGULAR ± 3°		MATERIAL NO.					
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE					



- 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.
  - NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 & 6
  - WITH CENTRE POLARISATION SLOT FOR 87831-5119 & 87831-6120.
  - NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
  - CKT 4 AND 6 HAS NO IDENTIFICATION TAG.
  - REFER TO PART 87831-\*\*\*4\* FOR CENTRE LOCKING SLOT OPTION FOR 4 TO 12 CKT.
  - 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 SPECIFICAION : FOR TUBE : PK-87831-001  
FOR T&R : PK-87831-300

ADD DETAIL 1 & 2. REDMEN BOT.VIEW EC NO: S2015-1247 DRW:ATSEE CHKD:CGOH APPR:KLLIM 2015/04/29 2015/04/29 2015/06/18	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION																															
	$\nabla=0$ $\nabla=0$	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <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> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.2	± ---	1 PLACE	± ---	± ---	<table border="1"> <tr> <th>DRAWN BY</th> <th>DATE</th> <th>TITLE</th> </tr> <tr> <td>ATSEE</td> <td>2003/10/03</td> <td>MGRID, SHROUDED HEADER VERTICAL W/SLOT &amp; STANDOFF</td> </tr> <tr> <th>CHECKED BY</th> <th>DATE</th> <th></th> </tr> <tr> <td>KCLING</td> <td>2003/11/07</td> <td></td> </tr> <tr> <th>APPROVED BY</th> <th>DATE</th> <th></th> </tr> <tr> <td>SKTOH</td> <td>2003/11/07</td> <td></td> </tr> </table>	DRAWN BY	DATE	TITLE	ATSEE	2003/10/03	MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF	CHECKED BY	DATE		KCLING	2003/11/07		APPROVED BY	DATE		SKTOH	2003/11/07		<b>MOLEX INCORPORATED</b>		SHEET NO. 1 OF 3
		mm	INCH																																				
	4 PLACES	± ---	± ---																																				
3 PLACES	± ---	± ---																																					
2 PLACES	± 0.2	± ---																																					
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DRAWN BY	DATE	TITLE																																					
ATSEE	2003/10/03	MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF																																					
CHECKED BY	DATE																																						
KCLING	2003/11/07																																						
APPROVED BY	DATE																																						
SKTOH	2003/11/07																																						
DESCRIPTION	ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. <b>SEE TABLE</b>	DOCUMENT NO. <b>SD-87831-011</b>																																				

ASSY P/N IN TUBE	CKT SIZE	DIMENSION				
		A	B	C	D	E
87831-04** <sup>4</sup>	4	2.00	4.85	6.65	5.00	—
87831-06** <sup>4</sup>	6	4.00	6.85	8.65	7.00	—
87831-08**	8	6.00	8.85	10.65	9.00	—
87831-10**	10	8.00	10.85	12.65	11.00	—
87831-12**	12	10.00	12.85	14.65	13.00	—
87831-14**	14	12.00	14.85	16.65	15.00	8.00
87831-16**	16	14.00	16.85	18.65	17.00	10.00
87831-18**	18	16.00	18.85	20.65	19.00	12.00
87831-20**	20	18.00	20.85	22.65	21.00	14.00
87831-22**	22	20.00	22.85	24.65	23.00	16.00
87831-24**	24	22.00	24.85	26.65	25.00	18.00
87831-26**	26	24.00	26.85	28.65	27.00	20.00
87831-28**	28	26.00	28.85	30.65	29.00	22.00
87831-30**	30	28.00	30.85	32.65	31.00	24.00
87831-32**	32	30.00	32.85	34.65	33.00	26.00
87831-34**	34	32.00	34.85	36.65	35.00	28.00
87831-36**	36	34.00	36.85	38.65	37.00	30.00
87831-38**	38	36.00	38.85	40.65	39.00	32.00
87831-40**	40	38.00	40.85	42.65	41.00	34.00
87831-42**	42	40.00	42.85	44.65	43.00	36.00
87831-44**	44	42.00	44.85	46.65	45.00	38.00
87831-46**	46	44.00	46.85	48.65	47.00	40.00
87831-48**	48	46.00	48.85	50.65	49.00	42.00
87831-50**	50	48.00	50.85	52.65	51.00	44.00

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	—
—	87831-5119 <sup>5</sup>	6	1	—	4.00	6.85	8.65	7.00	—	—
—	87831-6120 <sup>5</sup>	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	—
87831-5554	87831-1420	14	2	—	12.00	14.85	16.65	15.00	8.00	10.35

PART NUMBER LEGEND :

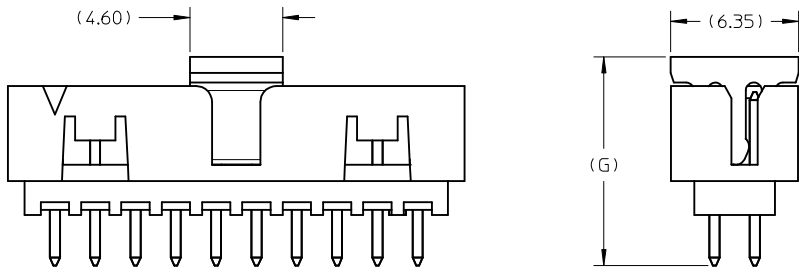
87831 - \* \* \* \* \*

PLATING OPTION

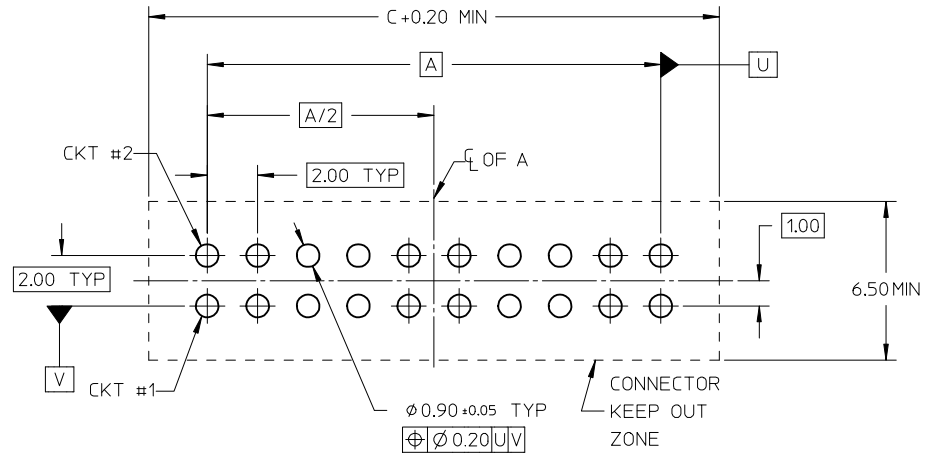
OPTION 1	**19 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
OPTION 2	**20 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
OPTION 3	**21 - 0.76um/30uin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

ADD 87831-5554 EC NO: S2015-1247 DRW:ATSEE 2015/04/29 CHKD:CGOH 2015/04/29 APPR:KLL JM 2015/06/18	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	=0 =0	mm INCH	MM ONLY	NTS	METRIC		
	DESCRIPTION	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	DRAWN BY DATE ATSEE 2003/10/03	CHECKED BY DATE KCL ING 2003/11/07	TITLE MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF		
	REV	ANGULAR ± 3 °	APPROVED BY DATE SKTOH 2003/11/07	MATERIAL NO.	MOLEX INCORPORATED DOCUMENT NO. SD-87831-011		
C2	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	SIZE A3	SHEET NO. 2 OF 3			
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

CAP INFORMATION



ILLUSTRATED VIEWS WITH CAP



RECOMMENDED PCB PATTERN

ADD PCB LAYOUT EC NO: S2015-1247 DRWN:ATSEE 2015/04/29 CHKD:CGOH 2015/04/29 APPR:KLLIM 2015/06/18	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$F_A=0$ $F_G=0$ $F_P=0$	mm	INCH	MM ONLY	NTS	METRIC	
		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE
		3 PLACES	± ---	± ---	ATSEE	2003/10/03	MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF
	2 PLACES	± 0.2	± ---	CHECKED BY	DATE		
	1 PLACE	± ---	± ---	KCL ING	2003/11/07		
	0 PLACE	±	±	APPROVED BY	DATE		
				SKTOH	2003/11/07		
		ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.	SHEET NO.
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87831-011	3 OF 3
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
				A3			