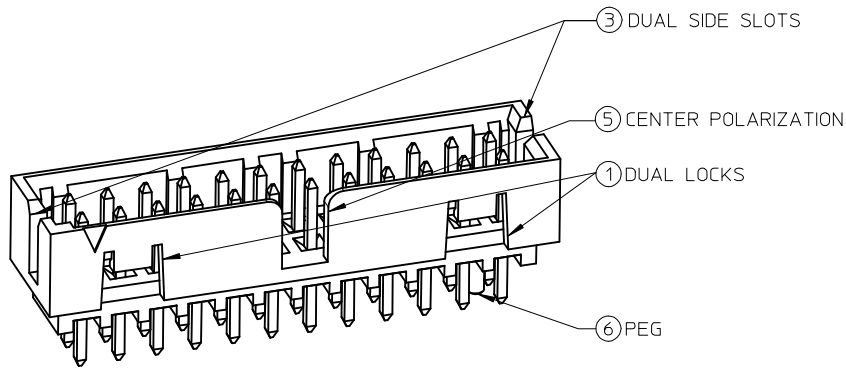
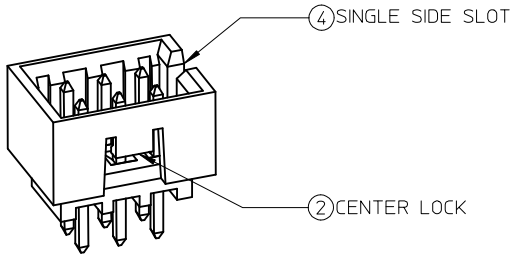


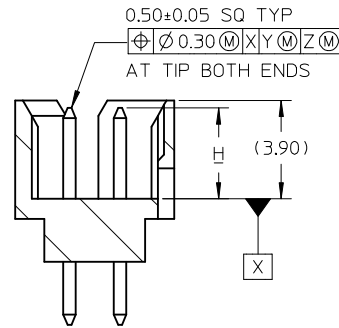
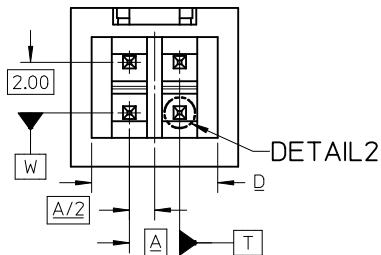
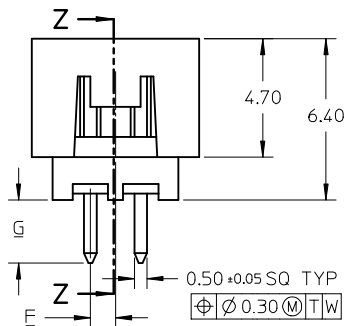
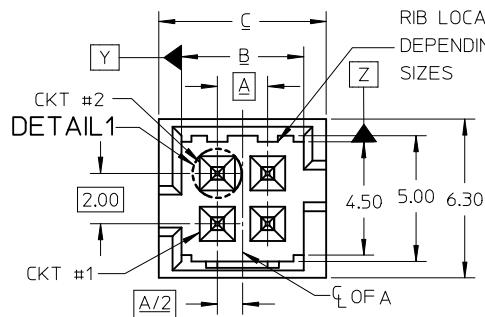
# FEATURES SELECTION GUIDE



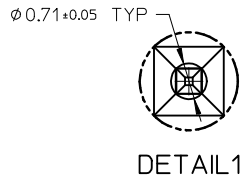
CIRCUIT SIZE	FEATURES						SHEET NO
	FRICTION LOCKS		SIDE SLOTS		5 CENTER POLARIZATION	6 PEG	
	1 DUAL	2 CENTER	3 DUAL	4 SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A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

<b>RELEASED</b> EC NO: S2015-1188 DRWNG: GMENARLY 2015/04/15 CHK'D: CGOH 2015/06/29 APPR: KHL IM 2015/06/29	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla_{\sqrt{A}} = 0$ $\nabla_{\sqrt{C}} = 0$ $\nabla_{\sqrt{P}} = 0$	mm    INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC	
		ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: GMENARLY    DATE: 2015/04/15 CHECKED BY:    DATE: APPROVED BY: KHL IM    DATE: 2015/06/29	TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER <b>molex</b>		
	A		SEE TABLE SIZE: A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	MATERIAL NO. DOCUMENT NO. SD-87831-0001	SHEET NO. 1 OF 13	

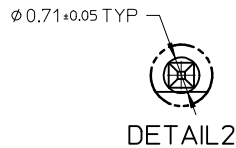
4 CIRCUITS



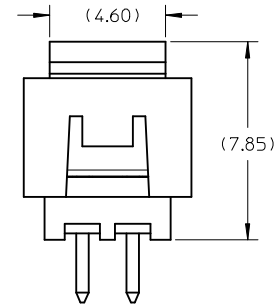
SECTION Z-Z



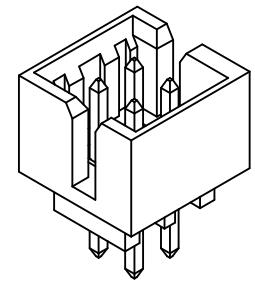
DETAIL1



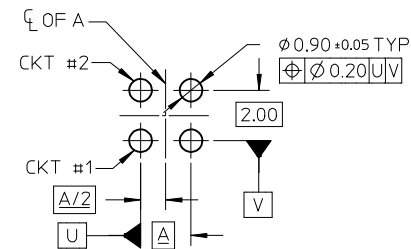
DETAIL2



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:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- 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)

RELEASED EC NO: S2015-1188 DRWING: GMENARLY CHKD: CGOH APPR: KHL IM	2015/04/15 2015/06/29 2015/06/29	QUALITY SYMBOLS $F_A=0$ $F_B=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
					MM ONLY	NTS	METRIC			
			mm	INCH	DRAWN BY	DATE	TITLE			
			4 PLACES	± ---	± ---	GMENARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER <b>molex</b>		
3 PLACES	± ---	± ---	CHECKED BY	DATE						
2 PLACES	± 0.20	± ---	APPROVED BY		DATE	DOCUMENT NO.				
1 PLACE	± ---	± ---	KHL IM		2015/06/29	SD-87831-0001				
0 PLACE	± ---	± ---	MATERIAL NO.		SHEET NO.					
ANGULAR ± 3°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		2 OF 13				
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

4 CIRCUITS

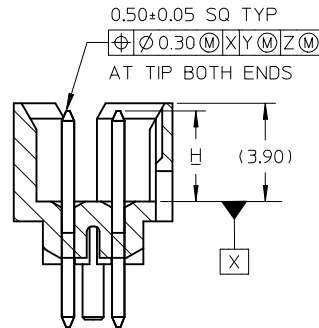
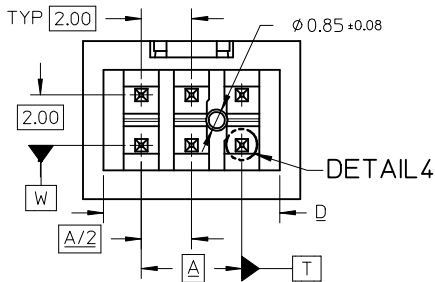
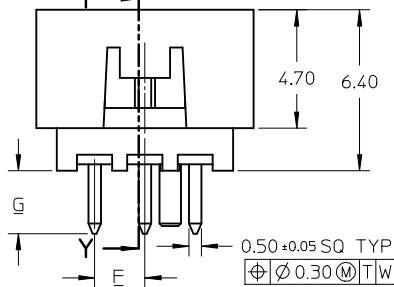
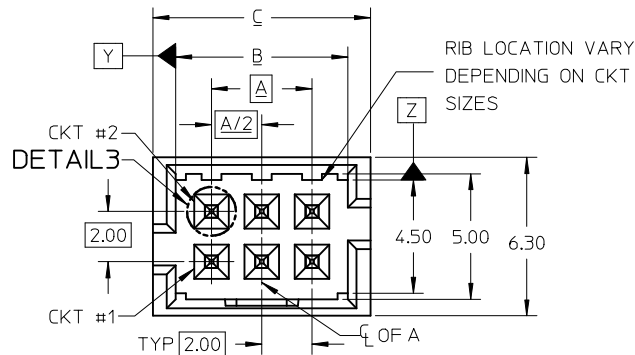
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION							
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
4	87831-0419	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	2.00	4.85	6.65	5.00	N.A	N.A	2.50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

PLATING OPTIONS:

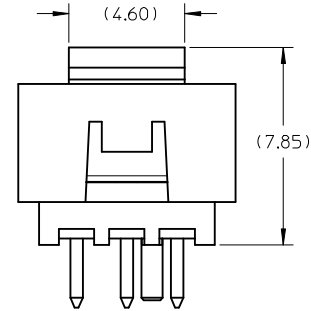
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT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

RELEASED EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION 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 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	CHECKED BY	DATE	<b>molex</b>		
		0 PLACE ± --- ± ---	ANGULAR ± 3 °	APPROVED BY	DATE			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	KHLIM	2015/06/29	DOCUMENT NO.	SHEET NO.	
				MATERIAL NO.		SD-87831-0001	3 OF 13	
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
				A3				

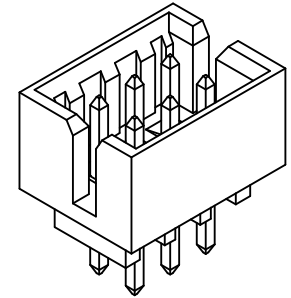
6 CIRCUITS



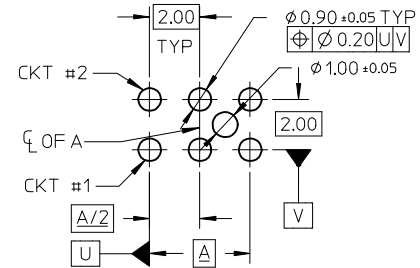
SECTION Y-Y



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:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- 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)

RELEASED IEC NO: S2015-1188 DRWNG: GMEARLY 2015/04/15 CHK'D: CGOH 2015/06/29 APPR: KHLIM 2015/06/29	QUALITY SYMBOLS $\nabla_F = 0$ $\nabla_F = 0$ $\nabla_F = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	NTS	METRIC		
		mm	INCH	DRAWN BY	DATE	TITLE		
		4 PLACES	± ---	± ---	GMEARLY	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. 4 OF 13			
2 PLACES	± 0.20	± ---	APPROVED BY	DATE				
1 PLACE	± ---	± ---	KHLIM	2015/06/29				
0 PLACE	± ---	± ---	MATERIAL NO.	SEE TABLE				
ANGULAR ± 3°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
A	REV			A3				

6 CIRCUITS

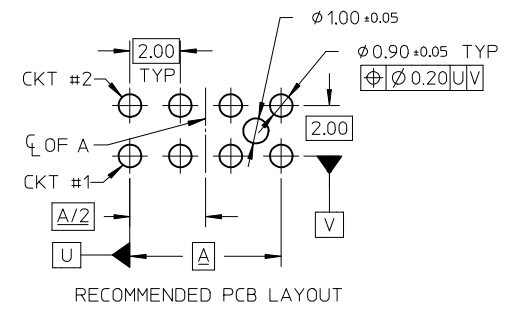
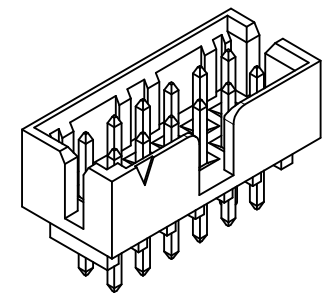
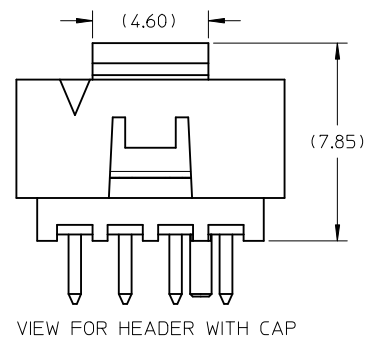
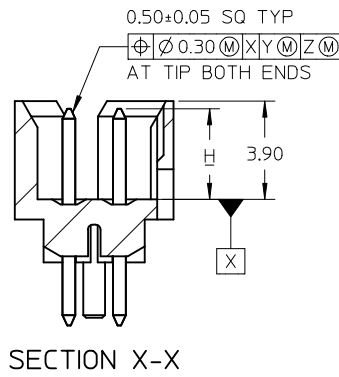
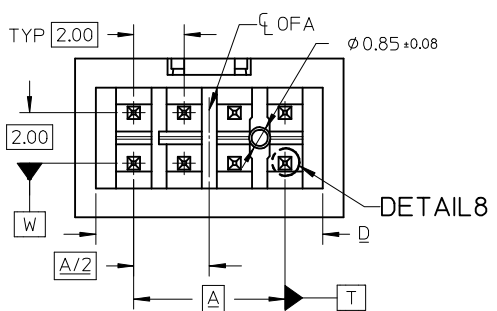
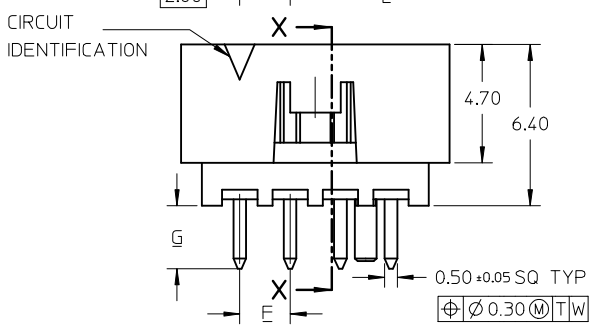
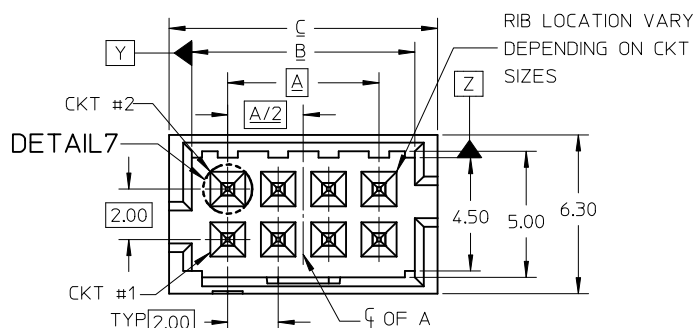
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION												
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H					
6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	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	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	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	2.50	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	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	2.50	3.60±0.20							
87831-0632	N.A	N.A	2																				
87831-5119	N.A	N.A	1														N.A	N.A	YES	N.A	YES	N.A	N.A

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.

<b>RELEASED</b> EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHL IM 2015/06/29	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	mm INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY KHL IM	DATE 2015/06/29	MATERIAL NO. <b>SEE TABLE</b>				DOCUMENT NO. SD-87831-0001	SHEET NO. 5 OF 13
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

8 TO 12 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:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
  - 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)

RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $\nabla_A=0$ $\nabla_E=0$ $\nabla_F=0$	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 ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY	DATE	APPROVED BY KHLIM 2015/06/29 MATERIAL NO. SEE TABLE DOCUMENT NO. SD-87831-0001 SHEET NO. 6 OF 13				
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY KHLIM 2015/06/29						
0 PLACE ± --- ± ---		ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		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						F								
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F		G	H						
E	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	N.A	N.A	YES	N.A	YES	YES	YES						N.A	2.50								
	87831-0828	N.A	N.A	2																						
	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						3.00	2.50								
	87831-0842	N.A	N.A	3																						
	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						3.00	3.50								
	N.A	87831-5541	N.A	2																						
	N.A	87831-5542	N.A	3																						
	D		87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A						N.A	6.00		8.85	10.65	9.00	N.A	3.00	2.50	3.60 <sup>+0.15</sup> <sub>-0.10</sub>
			87831-5742	N.A	N.A	3																				
			87831-0832	N.A	N.A	2																				
		87831-0843	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	3.00	2.50													
		87831-0844	N.A	N.A	3																					
		87831-0845	N.A	N.A	2																					
		87831-0846	N.A	N.A	3	N.A	YES	N.A	YES	N.A	YES	3.00	2.50													

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.

RELEASED EC NO: S2015-1188 DRAWN: GEMEARLY 2015/04/15 CH'KD: CGOH 2015/06/29 APPR: KHL IM 2015/06/29	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 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	NTS	METRIC		
		ANGULAR ± 3 °	DRAWN BY	DATE	TITLE		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	GEMEARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
			KHL IM	2015/06/29			
		SEE TABLE		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			

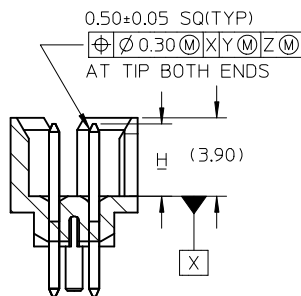
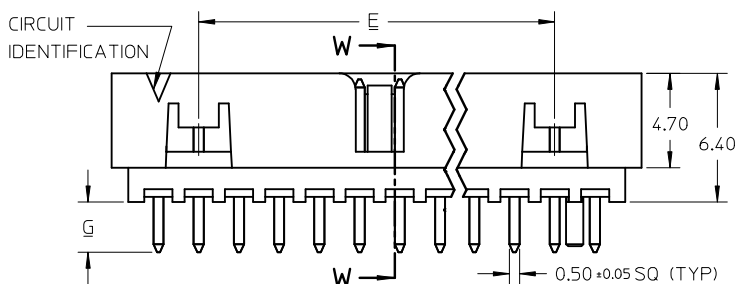
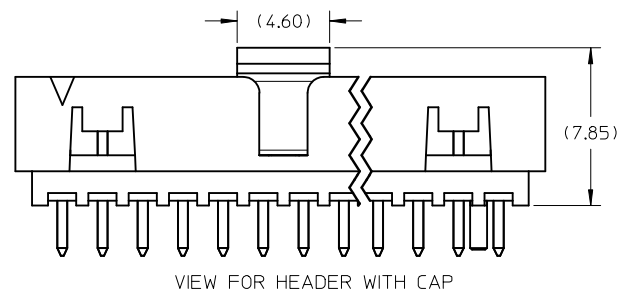
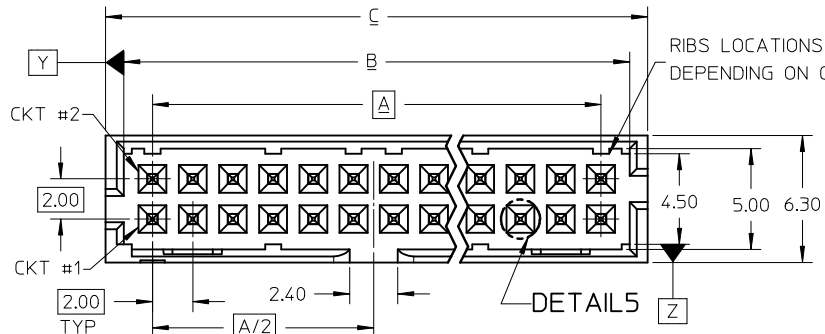
10 TO 12 CIRCUITS

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	N.A	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						2.50		
	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	2.50								
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	YES	2.50								
87831-1219	N.A	N.A	1															
87831-1220	N.A	N.A	2															
12	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	N.A	3														
	87831-1241	N.A	N.A	2														
	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														
	87831-1244	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A						2.50		
	87831-1245	N.A	N.A	2														
	87831-1246	N.A	N.A	3														

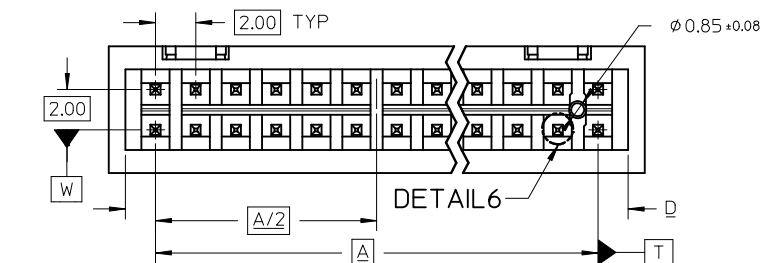
- PLATING OPTIONS:
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
  - 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
  - 3 - 0.76um/30uin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

<b>RELEASED</b> EC NO: S2015-1188 DRWING:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHL IM 2015/06/29	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	mm	INCH	DRAWN BY GMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER 			
		3 PLACES ± --- ± ---			CHECKED BY	DATE				
		2 PLACES ± 0.20 ± ---			APPROVED BY KHL IM	DATE 2015/06/29	MATERIAL NO.	DOCUMENT NO. SD-87831-0001	SHEET NO. 8 OF 13	
1 PLACE ± --- ± ---			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				
0 PLACE ± --- ± ---					SIZE A3					

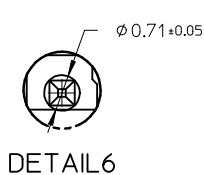
14 TO 50 CIRCUITS



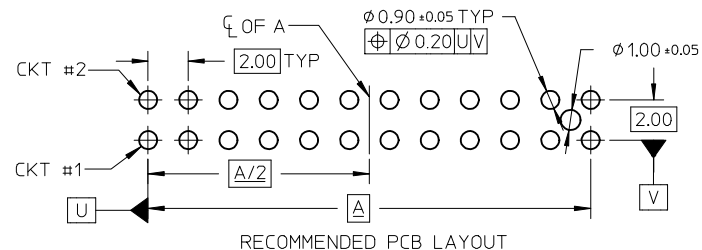
SECTION W-W



DETAIL5



DETAIL6



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:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- 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)


RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHL IM 2015/06/29	DESCRIPTION QUALITY SYMBOLS $F_a=0$ $F_b=0$ $F_p=0$	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 ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	0 PLACE ± --- ± ---	APPROVED BY KHL IM	DATE 2015/06/29	DOCUMENT NO. SD-87831-0001 SHEET NO. 9 OF 13		
		ANGULAR ± 3 °					MATERIAL NO.				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					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	N.A	87831-5554	2														
		87831-1421	N.A	N.A	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	N.A	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:

- 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.

RELEASED EC NO: S2015-1188 DRW:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	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	MM ONLY	NTS	METRIC	DRAWN BY: GMENARLY DATE: 2015/04/15 CHECKED BY: _____ DATE: _____		TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER 		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	ANGULAR ± 3 °		DRAWN BY: KHLIM DATE: 2015/06/29		APPROVED BY: _____ DATE: 2015/06/29		DOCUMENT NO. SD-87831-0001			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

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	N.A	N.A	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																					
	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.

RELEASED  
 IEC NO: S2015-1188  
 DRW:GMENARLY 2015/04/15  
 CH:KD:CGOH 2015/06/29  
 APPR:KHL IM 2015/06/29

DESCRIPTION

QUALITY SYMBOLS  
 F<sub>A</sub>=0  
 F<sub>C</sub>=0  
 F<sub>B</sub>=0

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**

SCALE  
**NTS**

DESIGN UNITS  
**METRIC**

THIRD ANGLE PROJECTION

DRAWN BY  
 GMENARLY

DATE  
 2015/04/15

CHECKED BY

DATE

APPROVED BY  
 KHL IM

DATE  
 2015/06/29

MATERIAL NO.

DOCUMENT NO.  
**SD-87831-0001**

SHEET NO.  
 11 OF 13

MILLIGRID  
 2MM PITCH, THROUGH HOLE  
 VERTICAL SHROUDED HEADER

**molex**

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														
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														
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	N.A	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														
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														
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														
	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.


RELEASED EC NO: S2015-1188 DRWING:GMENARLY 2015/04/15 CHKD:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	DESCRIPTION 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			
						GMENARLY	2015/04/15	MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
				CHECKED BY	DATE	APPROVED BY		DATE	<b>molex</b>		
				KHLIM	2015/06/29	MATERIAL NO.		DOCUMENT NO.			
				ANGULAR ± 3 °		SEE TABLE		SD-87831-0001	SHEET NO.		
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		12 OF 13			

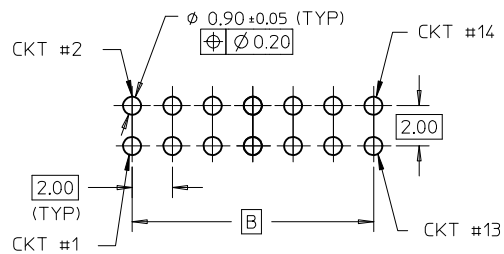
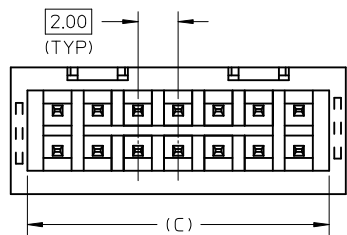
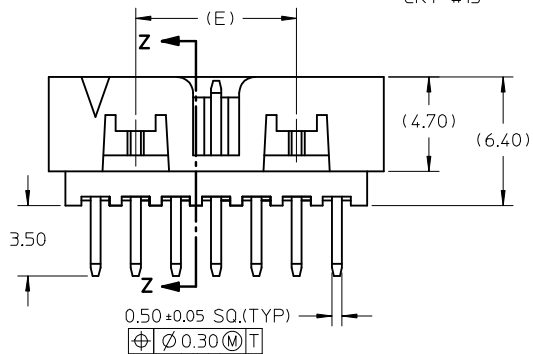
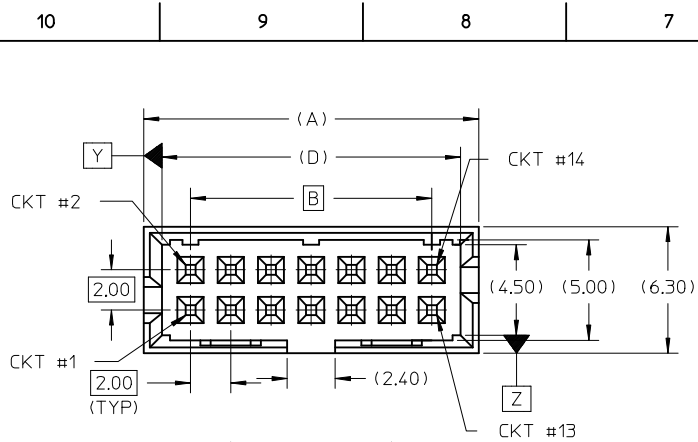
42 TO 50 CIRCUITS

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

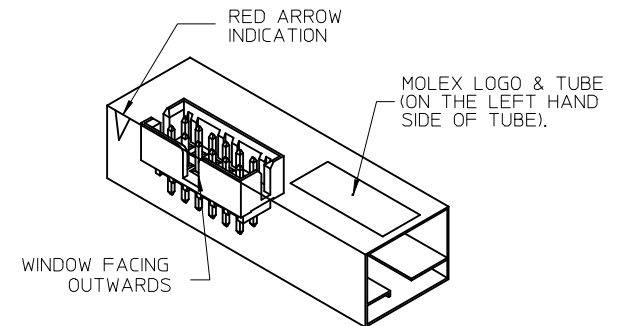
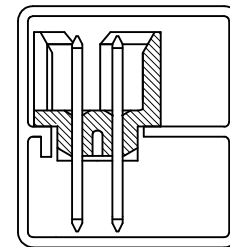
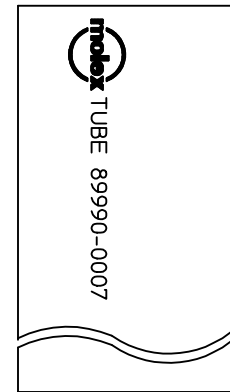
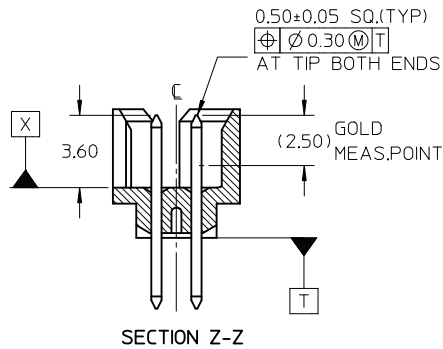
PLATING OPTIONS:

- 1 - 0.05-0.13um/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.

RELEASED IEC NO: S2015-1188 DRWNG:GMENARLY 2015/04/15 CHK'D:CGOH 2015/06/29 APPR:KHLIM 2015/06/29	QUALITY SYMBOLS $\nabla_F = 0$ $\nabla_E = 0$ $\nabla_D = 0$	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 ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY		DATE	 DOCUMENT NO. SD-87831-0001 SHEET NO. 13 OF 13			
				2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY KHLIM		DATE 2015/06/29				
		0 PLACE ± --- ± ---	ANGULAR ± 3 °		MATERIAL NO.		SEE TABLE					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						



RECOMMENDED PCB PATTERN

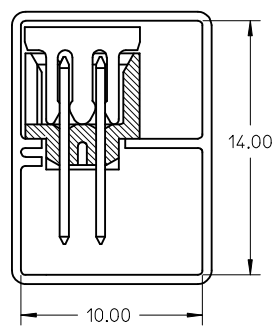
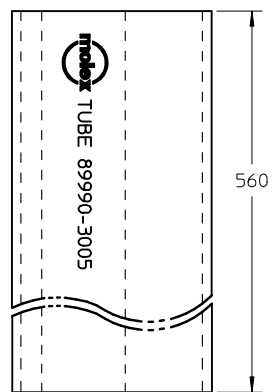


REF : ORIENTATION OF PART WITHOUT CAP IN TUBE  
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)

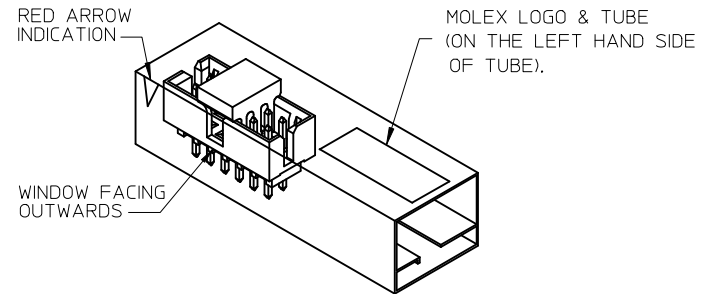
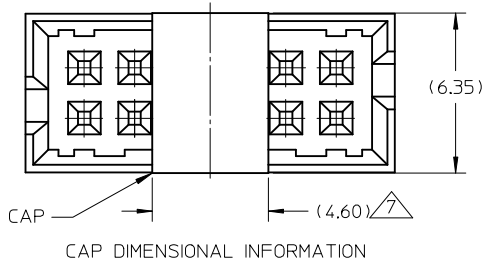
SHT2, +87831011&2410 EC NO: S2014-0454 DRW:ATSEE 2013/11/11 CHKD:FANNYWONG 2014/02/18 APPR:BLEE 2014/02/18	QUALITY SYMBOLS F <sub>A</sub> =0 F <sub>C</sub> =0 F <sub>P</sub> =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	mm INCH	DRAWN BY ATSEE	DATE 2004/01/07	TITLE MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH	MOLEX INCORPORATED	
A12	REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		DOCUMENT NO. SD-87831-026		
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

10 9 8 7 6 5 4 3 2 1

TUBE PACKAGING WITH CAP



ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	CKT SIZE	VOID PIN LOCATION	DIMENSION					PLATING OPTIONS
					A	B	C	D	E	
87831-1010	-	-	10	-	12.65	8.00	11.00	10.85	----	1
87831-1011	-	-	10	-	12.65	8.00	11.00	10.85	----	3
87831-1410	-	-	14	-	16.65	12.00	15.00	14.85	8.00	1
87831-1411	-	-	14	-	16.65	12.00	15.00	14.85	8.00	3
87831-2010	-	-	20	-	22.65	18.00	21.00	20.85	14.00	1
87831-2011	-	-	20	-	22.65	18.00	21.00	20.85	14.00	3
87831-2410	-	-	24	-	26.65	22.00	25.00	24.85	18.00	1
87831-2610	-	-	26	-	28.65	24.00	27.00	26.85	20.00	1
87831-3010	87831-3030	87831-3050	30	-	32.65	28.00	31.00	30.85	24.00	1
87831-7101	-	-	34	21	36.65	32.00	35.00	34.85	28.00	1
87831-7102	-	-	34	21	36.65	32.00	35.00	34.85	28.00	2
87831-4010	-	-	40	-	42.65	38.00	41.00	40.85	34.00	1



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

NOTES:

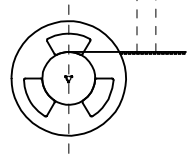
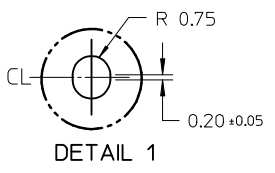
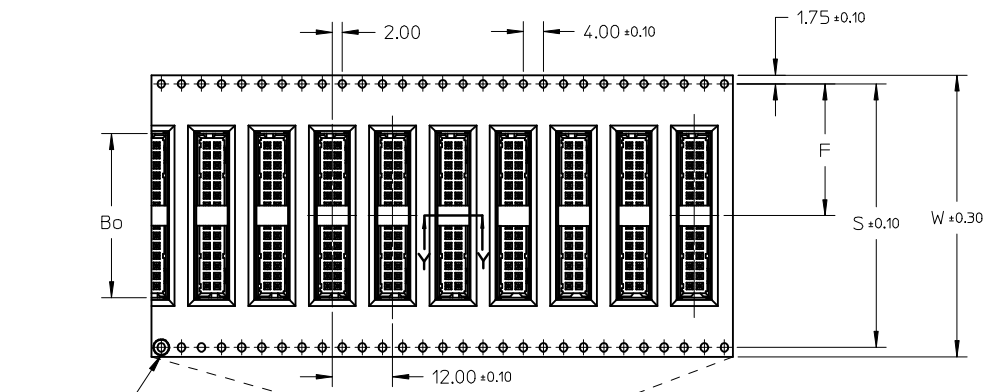
- MATERIAL :  
HOUSING : NYLON 46 GLASS FILLED, UL94V-0, COLOR BLACK.  
PIN : 0.50MM SQ. PHOSPHOR BRONZE.
  - PLATING OPTIONS :  
1 - 0.38um/15uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.  
2 - GOLD FLASH IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.  
3 - 0.76um/30uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
  - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
  - THIS HEADER MATES WITH MOLEX :  
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.  
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
  - NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
  - PARTS TO BE PACKED IN TAPE & REEL OR TUBE WITH MOISTURE BARRIER BAG.
- △ POSITION OF CAP SHOULD BE LOCATED AT CENTER OF DIM A REGARDLESS OF CIRCUIT SIZE.

SHT2, +878311011&2410 EC NO: S2014-0454 DRW:ATSEE 2013/11/11 CHKD:FANNWONG 2014/02/18 APPR:LBLEE 2014/02/18	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 ATSEE	DATE 2004/01/07	TITLE MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH	
A12	REV	4 PLACES	± --- ± ---	CHECKED BY KCL ING	DATE 2004/01/14	MOLEX INCORPORATED	SHEET NO. 2 OF 3
		3 PLACES	± --- ± ---	APPROVED BY MLONG	DATE 2010/10/28		
		2 PLACES	± 0.2 ± ---	MATERIAL NO.		DOCUMENT NO. SD-87831-026	
		1 PLACE	± --- ± ---	SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
		ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			

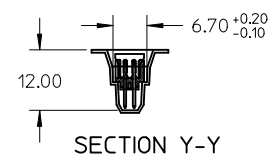
9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

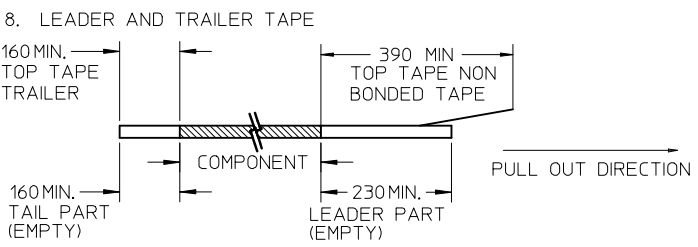
ASSY P/N WITH CAP IN T&R	CKT SIZE	(F)	(Bo)	(W)	(S)
87831-3050	30	26.20	33.05	56.00	52.40



CUSTOMER PULL OUT DIRECTION



NOTES:



9. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



10. PACKAGING STANDARD IS AS PER EIA-481.  
11. TAPE & REEL QUANTITY : 400PCS/REEL

SHT2. +87831101182410 EC NO: S2014-0454 DRW: ATSEE 2013/11/11 CHKD: FANNY WONG 2014/02/18 APPR: LBLEE 2014/02/18	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_B=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	ATSEE	2004/01/07	MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.2	± ---	KCL ING	2004/01/14	MOLEX INCORPORATED					
1 PLACE	± ---	± ---	APPROVED BY	DATE						
ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MLONG	2010/10/28	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87831-026		
A12		REV		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

9 8 7 6 5 4 3 2 1