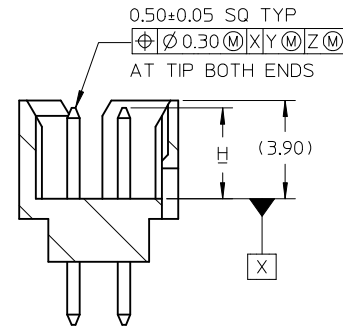
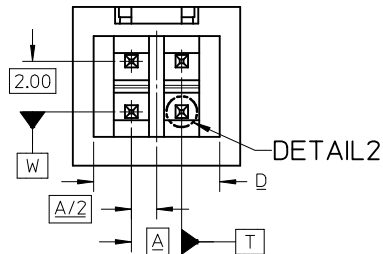
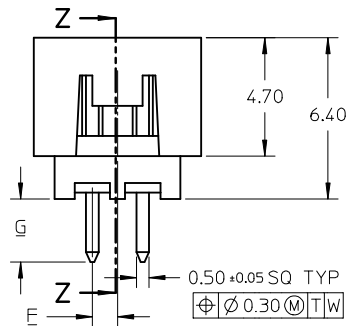
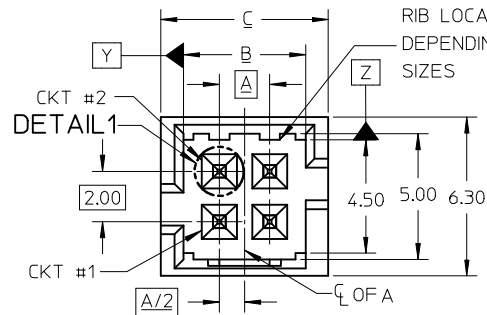
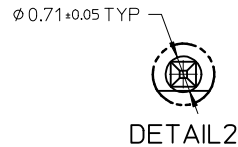
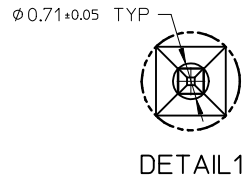


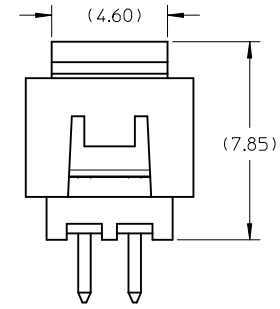
4 CIRCUITS



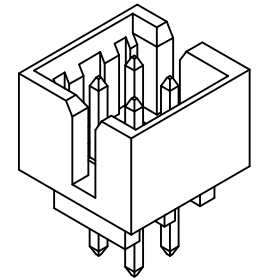
SECTION Z-Z



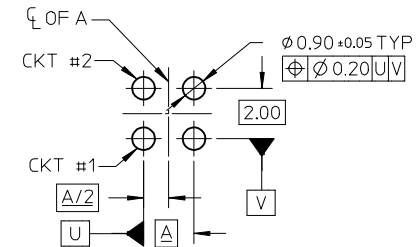
DETAIL2



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:

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

5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES

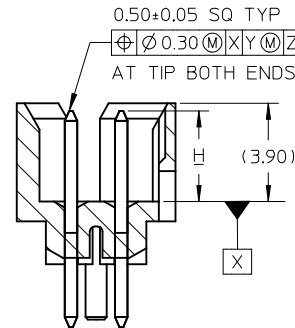
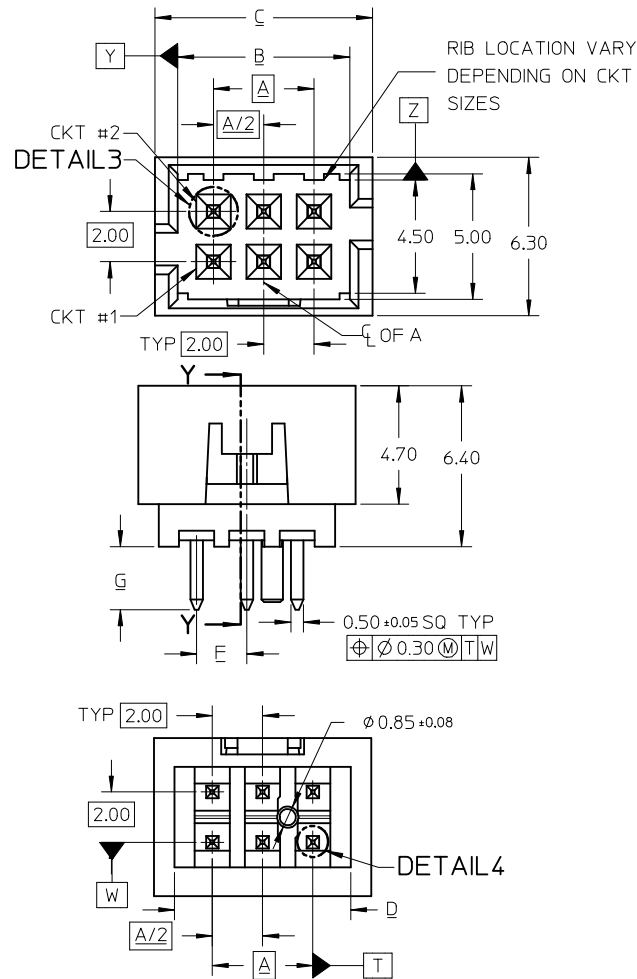
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES

C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE:
79107 (GOLD PLATED), 78787 (TIN PLATED)

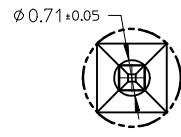
RELEASED EC NO: S2015-1188 DRWNG:GMENARLY CHKD:CGOH APPR:KHLIM 2015/04/15 2015/06/29 2015/06/29	DESCRIPTION	QUALITY SYMBOLS F_A=0 F_G=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
					MM ONLY		NTS	METRIC			
					DRAWN BY DATE		TITLE				
					GMENARLY 2015/04/15						
					CHECKED BY DATE		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER				
					KHLIM 2015/06/29						
					APPROVED BY DATE		molex				
		KHLIM 2015/06/29									
		MATERIAL NO.		DOCUMENT NO.					SHEET NO.		
		SEE TABLE		SD-87831-0001					2 OF 13		
		SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							
		A3									

	10	9	8	7	6	5	4	3	2	1									
	4 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	4	87831-0419	N.A	N.A	1	N.A	N.A	YES	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														
		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																
		87831-0444	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A					2.50	3.60 ^{+0.15} _{-0.10}		
D																		D	
C																		C	
B																		B	
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. 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.					RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/04/15 CHKD:GGOH 2015/06/29 APPR:KHL IM 2015/06/29 A	REV DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0 ▽=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 DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHL IM 2015/06/29 MATERIAL NO. SEE TABLE		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex SD-87831-0001		SHEET NO. 3 OF 13			
									SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								
	tb_frame_A3_P_AM_T Rev. G 2012/01/11	9	8	7	6	5	4	3	2	1									

6 CIRCUITS



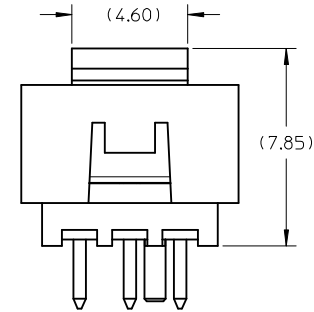
SECTION Y-Y



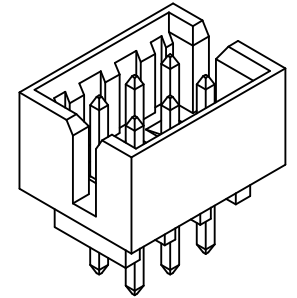
DETAIL3



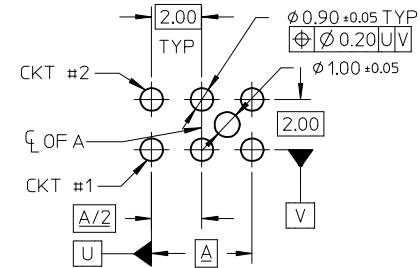
DETAIL4



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:

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

5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES

AND CRIMP TERMINAL: 50394 SERIES

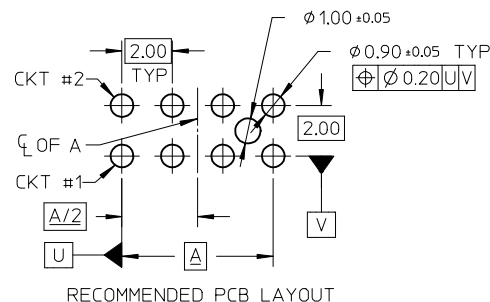
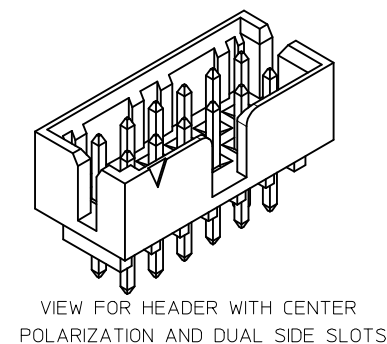
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES

C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE:

79107 (GOLD PLATED), 78787 (TIN PLATED)

RELEASED EC NO: S2015-1188 DRAWN:GEMARLY CHKD:CGOH APPR:KHLIM	2015/04/15 2015/06/29 2015/06/29	DESCRIPTION	QUALITY SYMBOLS F_A=0 F_C=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
					mm	INCH	DRAWN BY GEMENARLY	DATE 2015/04/15	TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
				4 PLACES	± ---	± ---	CHECKED BY	DATE						
				3 PLACES	± ---	± ---	APPROVED BY		DATE	molex				
				2 PLACES	± 0.20	± ---	KHLIM		2015/06/29					
				1 PLACE	± ---	± ---	MATERIAL NO.		DOCUMENT NO.					
	0 PLACE	± ---	± ---	SEE TABLE		SD-87831-0001	4 OF 13							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ± 3 °		SIZE A3		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																														
	6 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	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	E																				
		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																																			
		87831-0642	N.A	87831-5552	3	N.A	YES	YES	N.A	N.A	N.A						2.00	2.50																						
		87831-5241	N.A	N.A	2													3.50																						
		87831-5242	N.A	N.A	3													2.80																						
87831-6241		N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A								2.50	3.60 ^{+0.15} _{-0.10}																					
87831-6242		N.A	N.A	3																																				
87831-0643		N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A																														
87831-0644		N.A	N.A	3																																				
87831-0645		N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES																														
87831-0646		N.A	N.A	3																																				
D		87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES							N.A	2.50		D																			
		87831-5119	N.A	N.A	1	N.A	N.A	YES	N.A	YES	N.A																													
C																				C																				
B																				B																				
A	PLATING OPTIONS:					RELEASED EC NO: S2015-1188 DRW:GMENARLY CHKD:CGOH APPR:KHL IM		DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex			A																			
	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.											mm	INCH	DRAWN BY	DATE	TITLE																								
												4 PLACES ± --- ± ---		3 PLACES ± --- ± ---		2 PLACES ± 0.20 ± ---						1 PLACE ± --- ± ---		0 PLACE ± --- ± ---		ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.								
	A											DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87831-0001						5 OF 13																		
												SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																										
fb_frame_A3_P_AM_T Rev. G 2012/01/11	9	8	7	6	5	4	3	2	1																															



- | | | | | | | | | | | | | | | |
|---|--|-------------|-----------------|--|--------|---|----------------------|--------------------|---|------------------------|---------|-----------|--|--|
| RELEASED
EC NO: S2015-1188
DRAWN:GMENARLY
CHK'D:CJGH
APPR.:KHLIM | 2015/04/15
2015/06/29
2015/06/29 | DESCRIPTION | QUALITY SYMBOLS | 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
<div>MILLGRID</div> <div>2MM PITCH, THROUGH HOLE</div> <div>VERTICAL SHROUDED HEADER</div> <div>molex</div> | | | | | |
| | | | | 4 PLACES | ± --- | ± --- | CHECKED BY | DATE | | | | | | |
| | | | | 3 PLACES | ± --- | ± --- | | | | | | | | |
| | | | | 2 PLACES | ± 0.20 | ± --- | APPROVED BY | | DATE | | | | | |
| | | | | 1 PLACE | ± --- | ± --- | KHLIM | 2015/06/29 | | | | | | |
| | | | | 0 PLACE | ± --- | ± --- | MATERIAL NO. | | DOCUMENT NO. | | | SHEET NO. | | |
| | | | | ANGULAR ± 3 ° | | SEE TABLE | | SD-87831-0001 | | | 6 OF 13 | | | |
| A | REV | | | 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 | | | | | | | | |

10		9		8		7		6		5		4		3		2		1										
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	E								
		87831-0820	N.A	N.A	2																							
		87831-0821	N.A	N.A	3																							
		87831-0836	N.A	N.A	4																							
		87831-0828	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES							N.A			N.A	N.A	N.A	3.00	2.50	3.60±0.15 -0.10		
		87831-0829	N.A	N.A	3																							
		87831-0841	N.A	87831-5551	2																							
		87831-0842	N.A	N.A	3																							
		87831-5441	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	N.A			N.A	N.A	3.00	2.50	3.60±0.15 -0.10			
		87831-5442	N.A	N.A	3																							
		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	N.A			N.A	N.A	N.A	N.A	N.A	3.00	2.50	3.60±0.15 -0.10
			87831-5742	N.A	N.A	3																						
87831-0832	N.A		N.A	2																								
87831-0843	N.A		N.A	2																								
87831-0844	N.A		N.A	3	N.A	YES	N.A	YES	N.A	N.A	N.A	N.A	N.A	N.A	3.00	2.50	3.60±0.15 -0.10											
87831-0845	N.A		N.A	2																								
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.

RELEASED
EC NO: S2015-1188
DRWN:GMENARLY 2015/04/15
CHKD:GEOH 2015/06/29
APPR:KHLIM 2015/06/29

DESCRIPTION
REV

QUALITY
SYMBOLS
▽=0
▽=0
▽=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
DRAWN BY DATE
GMENARLY 2015/04/15
CHECKED BY DATE
APPROVED BY DATE
KHLIM 2015/06/29
MATERIAL NO.
SIZE
A3

SCALE
NTS
DESIGN UNITS
METRIC
THIRD ANGLE
PROJECTION
MILLIGRID
2MM PITCH, THROUGH HOLE
VERTICAL SHROUDED HEADER
molex
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

fb_frame_A3_P_AM_T
Rev. G 2012/01/11

9

8

7

6

5

4

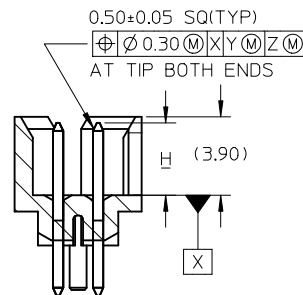
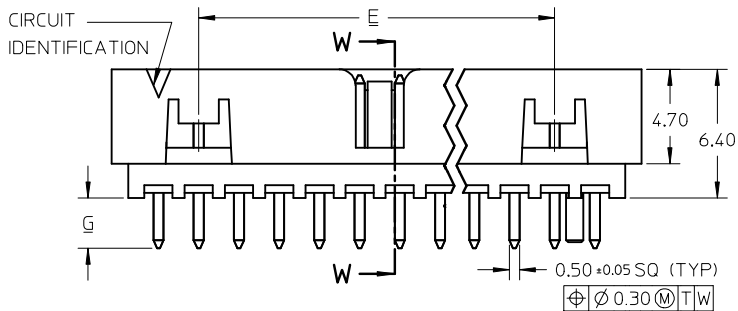
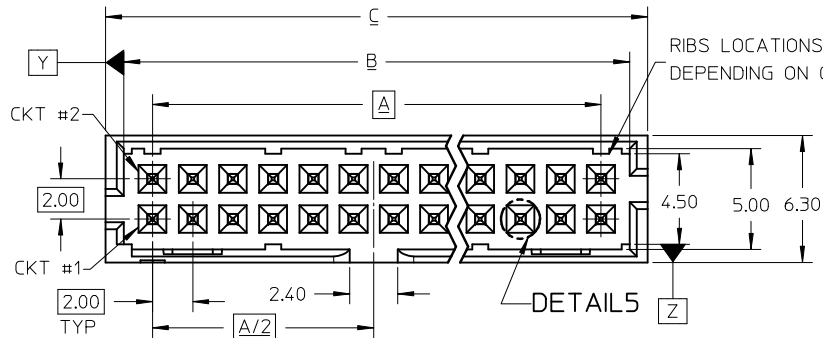
3

2

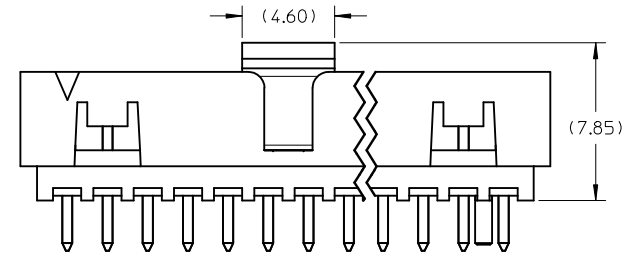
1

10		9		8		7		6		5		4		3		2		1			
10 TO 12 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	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	E	
		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	N.A	N.A	YES	N.A	YES	N.A							3.50			
		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	N.A	N.A	YES	N.A	YES	YES						3.50				
		87831-1041	N.A	N.A	2																
D	10	87831-1042	N.A	87831-5553	3	N.A	YES	YES	N.A	N.A	N.A	10.00	12.85	14.65	13.00	N.A	4.00	2.50	3.60 ^{+0.15} _{-0.10}	D	
		87831-1032	N.A	N.A	2																N.A
		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																N.A
		87831-1045	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						2.50				
		87831-1046	N.A	N.A	3																
C	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	C	
		87831-1220	N.A	N.A	2																
		87831-1221	N.A	N.A	3																
		87831-1236	N.A	N.A	4																
		87831-1228	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES							2.50			
		87831-1229	N.A	N.A	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						2.50				
		87831-1232	N.A	N.A	2													N.A			YES
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								N.A	YES	N.A	YES	N.A	N.A	2.50				
87831-1245	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	2.50											
87831-1246	N.A	N.A	3																		
B																					
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.																					
A	RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/06/29 CHKD:CGOH APPR:KHL IM REV					QUALITY SYMBOLS F=0 F=0 F=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex SD-87831-0001 SHEET NO. 8 OF 13						
							mm INCH		DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE		APPROVED BY DATE KHL IM 2015/06/29		MATERIAL NO.							DOCUMENT NO.	
							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	
tb_frame_A3_P_AM.T Rev. G 2012/01/11		9		8		7		6		5		4		3		2		1			

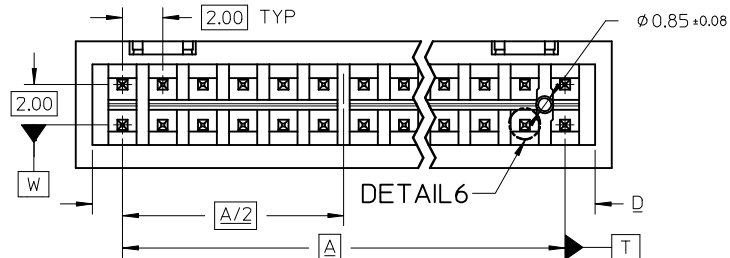
14 TO 50 CIRCUITS



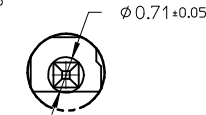
SECTION W-W



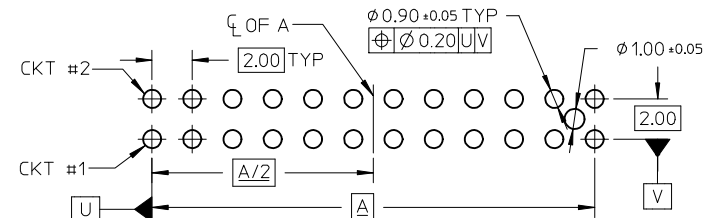
VIEW FOR HEADER WITH CAP



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 DRAWN:GMENARLY CHKD:CGOH APPR:KHL IM 2015/04/15 2015/06/29 2015/06/29	DESCRIPTION REV A	QUALITY SYMBOLS F_A=0 F_G=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	± ---	± ---	CHECKED BY	DATE				
			3 PLACES	± ---	± ---						
			2 PLACES	± 0.20	± ---	APPROVED BY	DATE	molex			
			1 PLACE	± ---	± ---	KHL IM	2015/06/29				
			0 PLACE	± ---	± ---	MATERIAL NO.	DOCUMENT NO.				SHEET NO. 9 OF 13
			ANGULAR ± 3 °			SEE TABLE		SD-87831-0001			
			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					

		10	9	8	7	6	5	4	3	2	1													
		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								F				
						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	E				
		87831-1420	N.A	87831-5554	2																			
		87831-1421	N.A	N.A	3																			
		87831-1436	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50						
		87831-1428	N.A	N.A	2													3.50						
		87831-1429	N.A	N.A	3													3.50						
		87831-1435	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A							14.00			16.85	18.65	17.00	10.00
87831-1410	N.A	N.A	2	2.50																				
87831-1411	N.A	N.A	3	3.50																				
D	16	87831-1619	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	C				
		87831-1620	N.A	N.A	2																			
		87831-1621	N.A	N.A	3																			
		87831-1636	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50						
		87831-1628	N.A	N.A	2													2.50						
		87831-1629	N.A	N.A	3													3.50						
		87831-1635	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							18.00			20.85	22.65	21.00	14.00
87831-1819	N.A	N.A	1																					
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	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	B						
87831-2019	N.A	N.A	1																					
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	YES	N.A	YES	N.A	YES	YES	18.00	20.85	22.65	21.00	14.00	N.A	2.50	3.60±0.20	C						
87831-2010	N.A	N.A	2																					
87831-2011	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A															
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.												RELEASED EC NO: S2015-1188 DRWN:GEMENARLY 2015/04/15 CHKD:GGOH 2015/06/29 APPR:KHL IM 2015/06/29 A		REV	QUALITY SYMBOLS F=0 F=0 F=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 DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHL IM 2015/06/29 MATERIAL NO. SEE TABLE	SCALE NTS TITLE MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex	DESIGN UNITS METRIC THIRD ANGLE PROJECTION	DOCUMENT NO. SD-87831-0001	SHEET NO. 10 OF 13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
	fb_frame_A3_P_AM.T Rev. G 2012/01/11		9	8	7	6	5	4	3	2	1													

		10	9	8	7	6	5	4	3	2	1																
		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								F							
						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	YES	N.A	YES	N.A	YES	YES							2.50									
		87831-2228	N.A	N.A	2																						
E	24	87831-2229	N.A	N.A	3	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								
		87831-2419	N.A	N.A	1																						
		87831-2420	N.A	N.A	2																						
		87831-2421	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A							2.50									
		87831-2436	N.A	N.A	4																						
		87831-2428	N.A	N.A	2																YES	N.A	YES	N.A	YES	YES	3.50
		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											
D	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	YES	N.A	YES	N.A	YES	YES							2.50									
		87831-2628	N.A	N.A	2																						
		87831-2629	N.A	N.A	3																YES	N.A	YES	N.A	YES	N.A	3.50
		87831-2610	N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A																
C	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	YES	N.A	YES	N.A	YES	YES							2.50									
		87831-2828	N.A	N.A	2																						
		87831-2829	N.A	N.A	3																YES	N.A	YES	N.A	YES	YES	
B	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	YES	N.A	YES	N.A	YES	YES							2.50									
		87831-3028	N.A	N.A	2																						
		87831-3029	N.A	N.A	3																YES	N.A	YES	N.A	YES	YES	3.50
		87831-3035	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50									
		87831-3010	87831-3030	87831-3050	2																						
		A	PLATING OPTIONS:					RELEASED EC NO: S2015-1188 DRWN:GMENARLY 2015/06/29 CHKD:GGOH 2015/06/29 APPR:KHL IM 2015/06/29 REV	QUALITY SYMBOLS F _A =0 F _B =0 F _C =0	GENERAL TOLERANCES (UNLESS SPECIFIED)								DIMENSION STYLE			SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex	SHEET NO. 11 OF 13	
MM ONLY			NTS	METRIC																							
DRAWN BY GMENARLY			DATE 2015/04/15		TITLE																						
CHECKED BY			DATE		APPROVED BY KHL IM		DATE 2015/06/29			DOCUMENT NO.																	
MATERIAL NO.			SEE TABLE		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																						
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.																											
ib_frame_A3_P_AM.T Rev. G 2012/01/11		9	8	7	6	5	4	3	2	1																	

10		9		8		7		6		5		4		3		2		1		
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								F
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
	32	87831-3219	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	30.00	32.85	34.65	33.00	26.00	N.A	2.50	3.60±0.20	
		87831-3220	N.A	N.A	2															
		87831-3221	N.A	N.A	3															
		87831-3236	N.A	N.A	4															
		87831-3228	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	34	87831-3229	N.A	N.A	3	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	
		87831-3419	N.A	N.A	1															
		87831-3420	N.A	N.A	2															
		87831-3421	N.A	N.A	3															
		87831-3436	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES							2.50		
87831-3428	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES	3.50										
87831-3429	N.A	N.A	3																	
87831-3435	N.A	N.A	3																	
	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	N.A	YES	N.A	YES	YES							2.50		
87831-3629	N.A	N.A	3	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			
87831-3819	N.A	N.A	1																	
87831-3820	N.A	N.A	2																	
87831-3821	N.A	N.A	3																	
87831-3836	N.A	N.A	4													YES		N.A	YES	N.A
87831-3828	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES	3.50										
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	N.A	YES	N.A	YES	YES							2.50		
87831-4029	N.A	N.A	3	YES	N.A	YES	N.A	YES	N.A	3.50										
87831-4010	N.A	N.A	2																	
B																				
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.																				
A	RELEASED EC NO: S2015-1188 DRWN:GMENARLY CHKD:GCOH APPR:KHL IM A					DESCRIPTION REV	QUALITY SYMBOLS F=0 F=0 F=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 DRAWN BY DATE GMENARLY 2015/04/15 CHECKED BY DATE APPROVED BY DATE KHL IM 2015/06/29 MATERIAL NO. SEE TABLE		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER molex SD-87831-0001 SHEET NO. 12 OF 13				
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																			
tb_frame_A3_P_AM.T Rev. G 2012/01/11		9		8		7		6		5		4		3		2		1		

	10	9	8	7	6	5	4	3	2	1																						
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		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	YES	N.A	YES	N.A	YES	YES							2.50														
		87831-4228	N.A	N.A	2																											
E	44	87831-4229	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	42.00	44.85	46.65	45.00	38.00	N.A	2.50	3.60±0.20	E												
		87831-4419	N.A	N.A	1																											
		87831-4420	N.A	N.A	2																											
		87831-4421	N.A	N.A	3																											
		87831-4436	N.A	N.A	4																											
	46	87831-4428	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES	44.00	46.85	48.65	47.00	40.00	N.A	2.50	3.60±0.20	D												
		87831-4429	N.A	N.A	3																											
		87831-4435	N.A	N.A	3																											
		87831-4619	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						
		87831-4620	N.A	N.A	2																											
87831-4621	N.A	N.A	3																													
C	48	87831-4636	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES	48.00	50.85	52.65	51.00	44.00	N.A		2.50	3.60±0.20						C						
		87831-4628	N.A	N.A	2																											
		87831-4629	N.A	N.A	3																											
		87831-4819	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
		87831-4820	N.A	N.A	2																											
87831-4821	N.A	N.A	3																													
	50	87831-4836	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES	48.00	50.85	52.65	51.00	44.00	N.A	2.50	3.60±0.20													
		87831-4828	N.A	N.A	2																											
		87831-4829	N.A	N.A	3																											
		87831-5019	N.A	N.A	1													YES			N.A	YES	N.A	YES	YES	48.00	50.85	52.65	51.00	44.00	N.A	2.50
		87831-5020	N.A	N.A	2																											
87831-5021	N.A	N.A	3																													
A		87831-5036	N.A	N.A	4	YES	N.A	YES	N.A	YES	YES	48.00	50.85	52.65	51.00	44.00	N.A	2.50	3.60±0.20													
		87831-5028	N.A	N.A	2																											
		87831-5029	N.A	N.A	3																											
		87831-5035	N.A	N.A	3													YES			N.A	YES	N.A	YES	YES	48.00	50.85	52.65	51.00	44.00	N.A	2.50
																		YES			N.A	YES	N.A	YES	YES							
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.												3.50																				
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