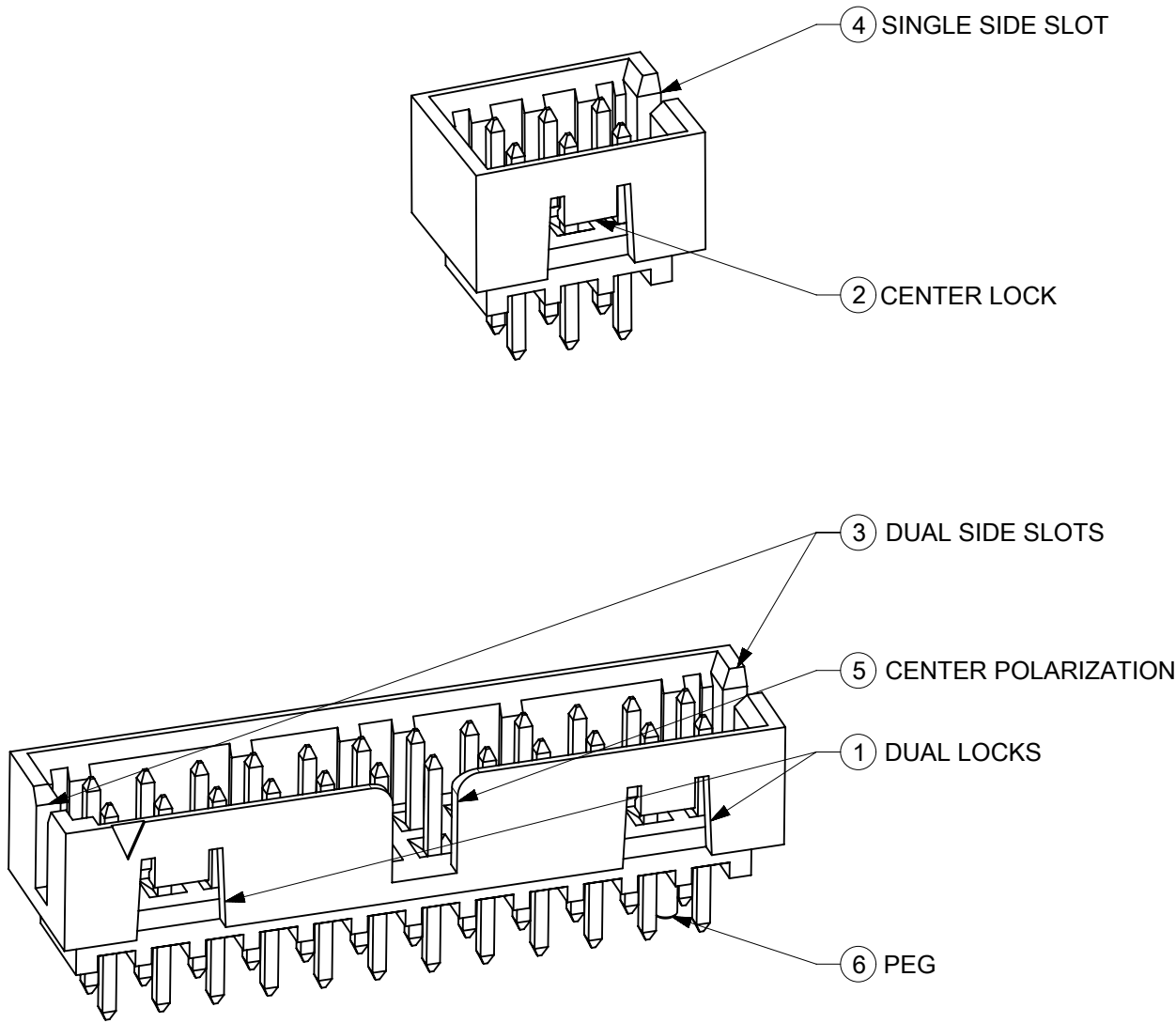


FEATURES SELECTION GUIDE



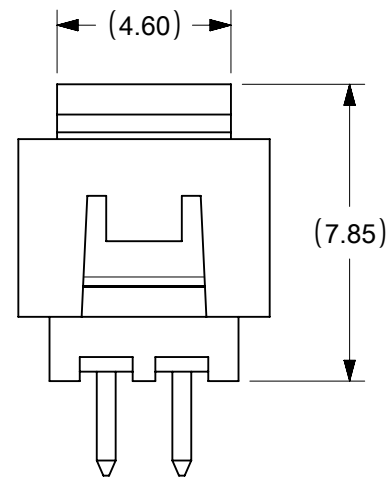
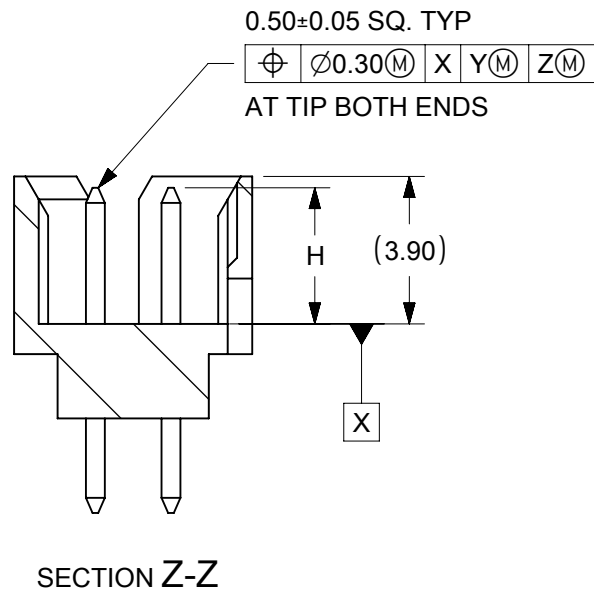
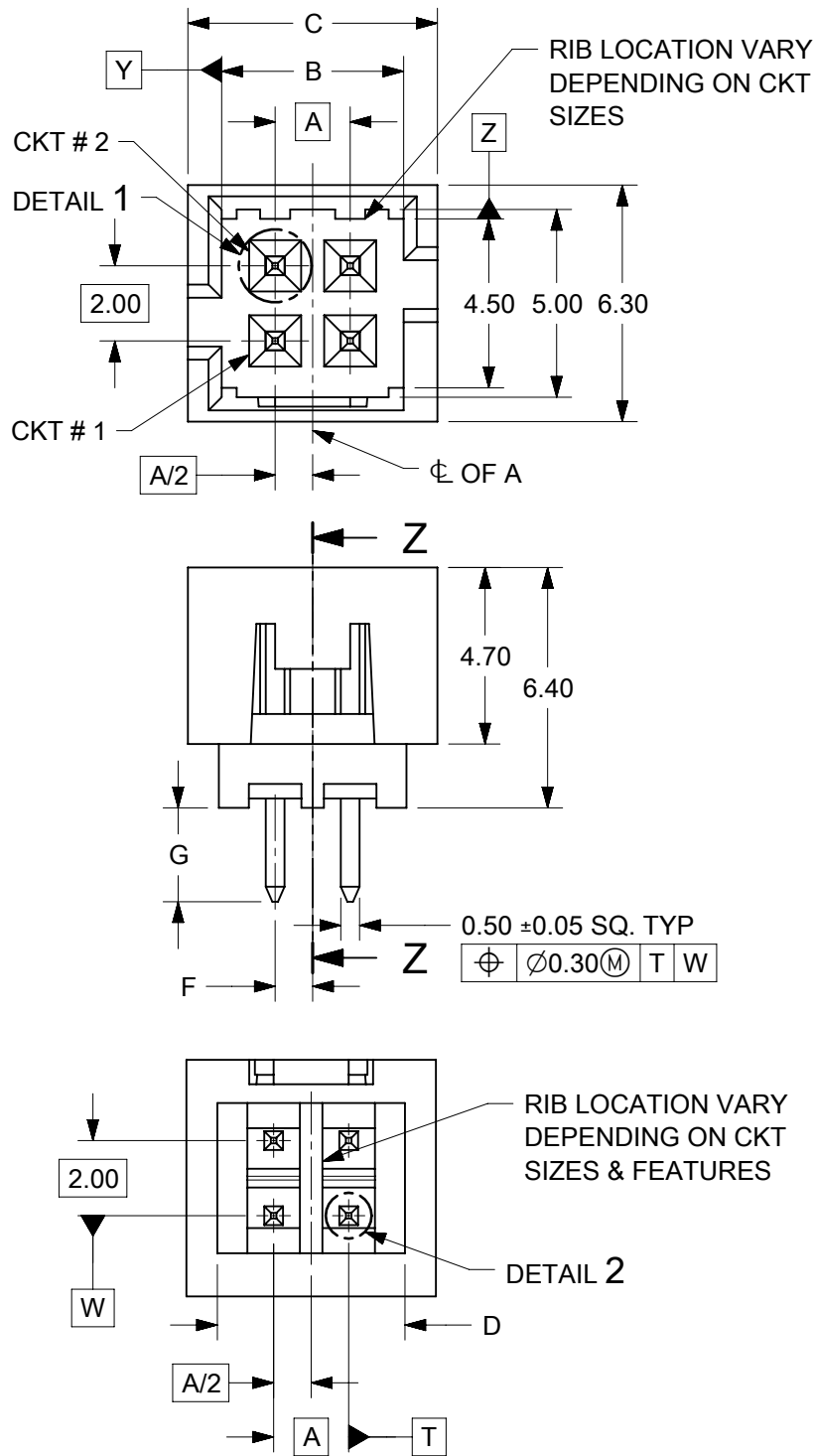
FEATURES							
CIRCUIT SIZE	FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
	① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3
	N.A	YES	YES	N.A	N.A	N.A	
	N.A	YES	N.A	YES	N.A	N.A	
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5
	N.A	N.A	YES	N.A	N.A	YES	
	N.A	YES	YES	N.A	N.A	N.A	
	N.A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

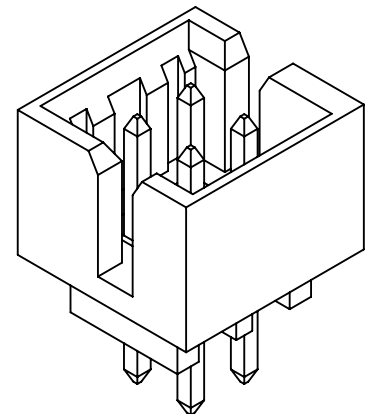
TAPE AND REEL PACKAGING		PK-87831-300
TUBE STANDARD PACKAGING		PK-87831-001
TUBE NON-STANDARD PACKAGING FOR:		PK-87831-002
87831-0419	87831-0645	
87831-5141	87831-5119	
87831-0443	87831-1011	
87831-5241	87831-1420	
87831-5242		
87831-0643		

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.				molex			
mm		NTS									
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11 INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
		MM	INCH					PRODUCT CUSTOMER DRAWING			
4 PLACES	±		±					DOCUMENT NUMBER			
3 PLACES	±		±					SD-87831-0001			
2 PLACES	±	0.2						DOC TYPE			
1 PLACE	±		±					DOC PART			
0 PLACES	±		±					REVISION			
ANGULAR TOL ± 3.0 °				THIRD ANGLE PROJECTION				DRAWING		SERIES	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						A3-SIZE		87831		MATERIAL NUMBER	
								SEE TABLE		CUSTOMER	
								GENERAL MARKET		SHEET NUMBER	
										1 OF 14	

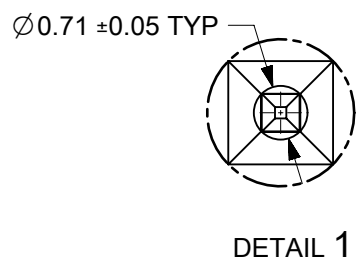
4 CIRCUITS



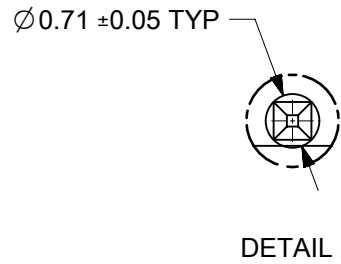
VIEW FOR
HEADER WITH CAP



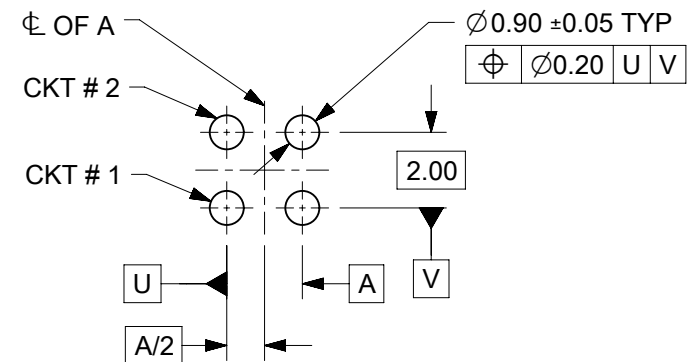
VIEW FOR HEADER
WITH ONLY DUAL SLOTS



DETAIL 1



DETAIL 2



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)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex				
mm	NTS										
GENERAL TOLERANCES (UNLESS SPECIFIED)			EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA			MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
										MM	INCH
4 PLACES	±		±	2023/08/14 2023/09/11 2023/09/11			PRODUCT CUSTOMER DRAWING				
3 PLACES	±		±								
2 PLACES	±	0.2	±								
1 PLACE	±		±	INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM			DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
0 PLACES	±		±				2015/04/15 2015/06/29	SD-87831-0001		PSD	001
ANGULAR TOL			± 3.0 °			SHEET NUMBER					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER			
					A3-SIZE	87831	SEE TABLE	GENERAL MARKET		2 OF 14	

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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10	9	8	7	6	5	4	3	2	1										
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	87831-5565	3															
	87831-5141	N.A	N.A	2	N.A	YES	YES	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								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 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTETIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

MM

INCH

4 PLACES

±

±

3 PLACES

±

±

2 PLACES

±

0.2

±

1 PLACE

±

±

0 PLACES

±

±

ANGULAR TOL

±

3.0 °

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

EC NO: 761863
DRWN: SUAIFR
CHK'D: GGA
APPR: GGA

2023/08/14
2023/09/11
2023/09/11

INITIAL REVISION:
DRWN: GMENARLY
APPR: KHLIM

2015/04/15
2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

MATERIAL NUMBER

SEE TABLE

CUSTOMER

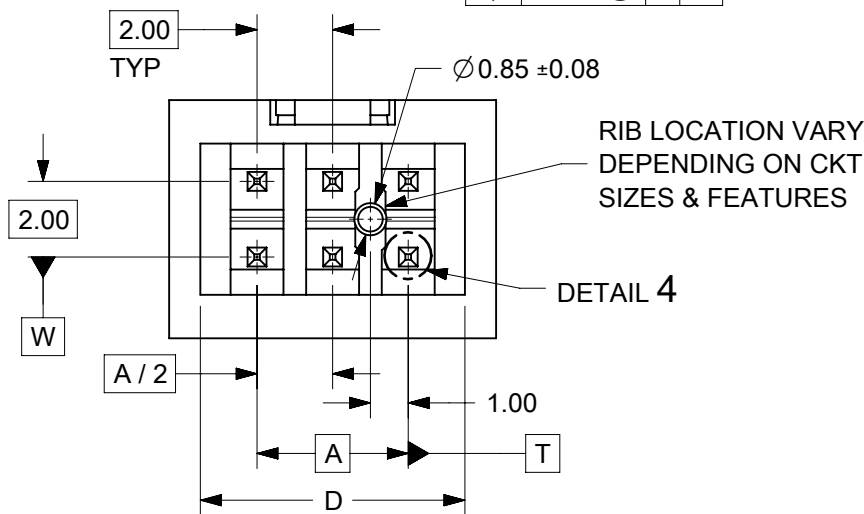
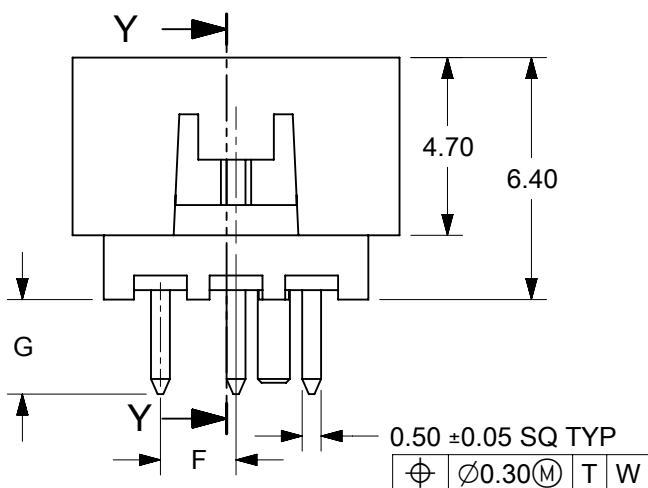
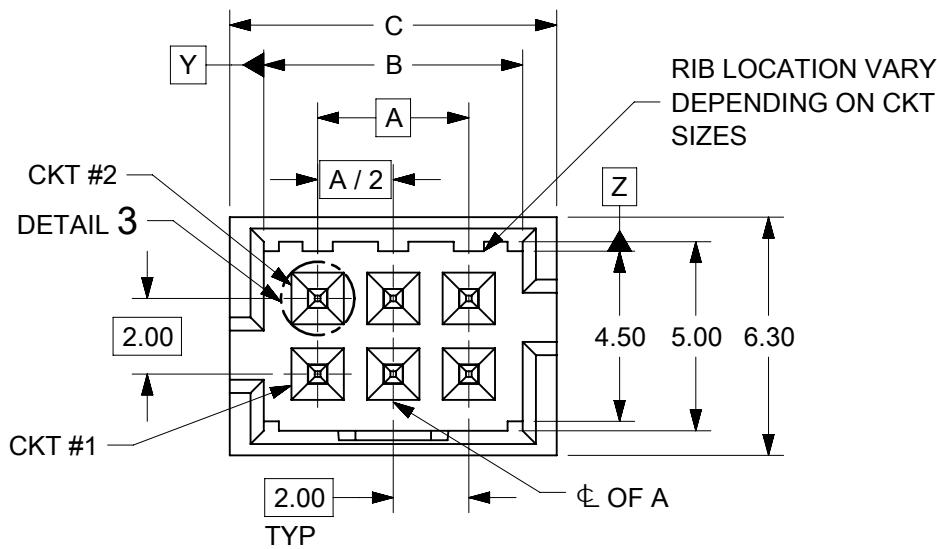
GENERAL MARKET

SHEET NUMBER

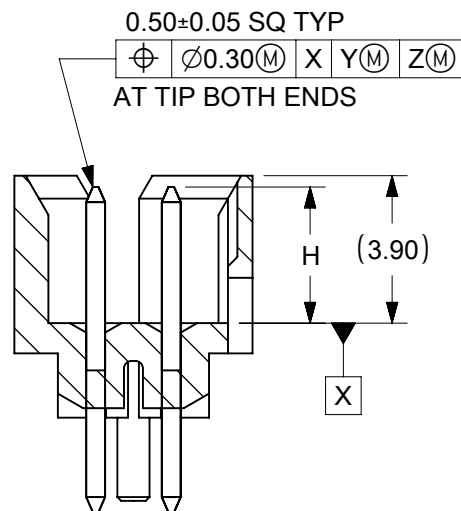
3 OF 14

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51				
9	8	7	6	5	4	3	2	1

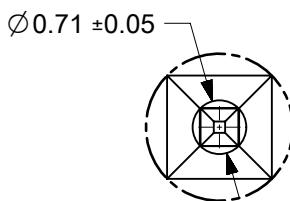
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REVISION: E1
DATE: 20210501



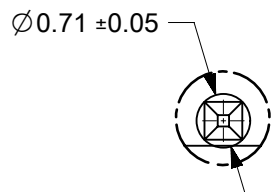
6 CIRCUITS



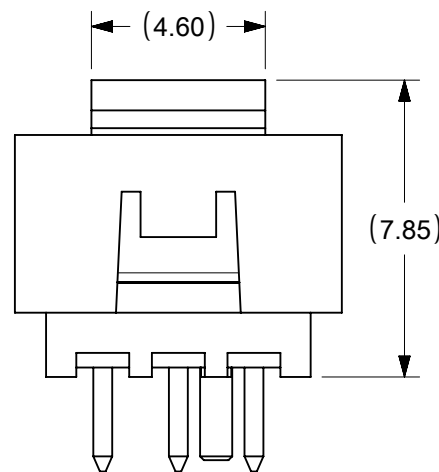
SECTION Y-Y



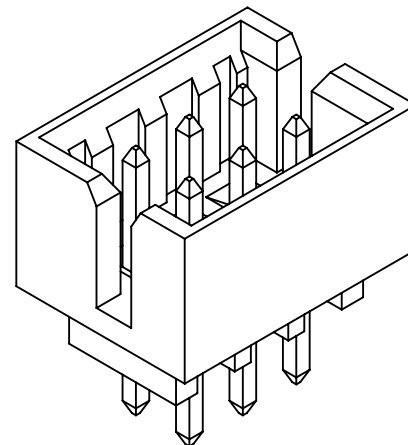
DETAIL 3



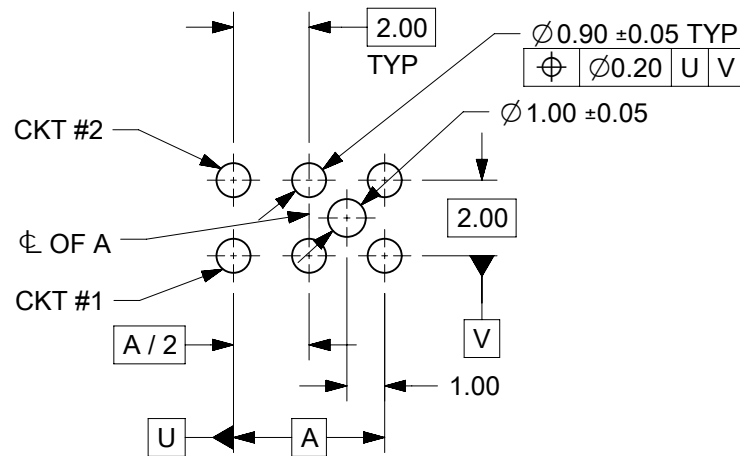
DETAIL 4



VIEW FOR
HEADER WITH CAP



VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

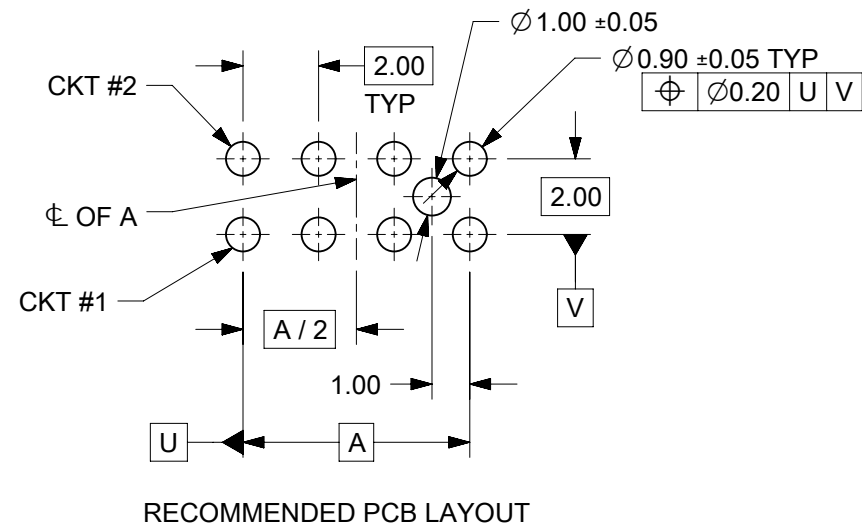
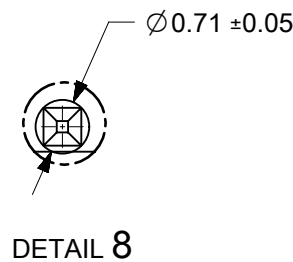
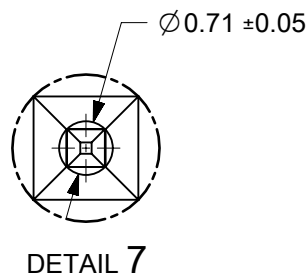
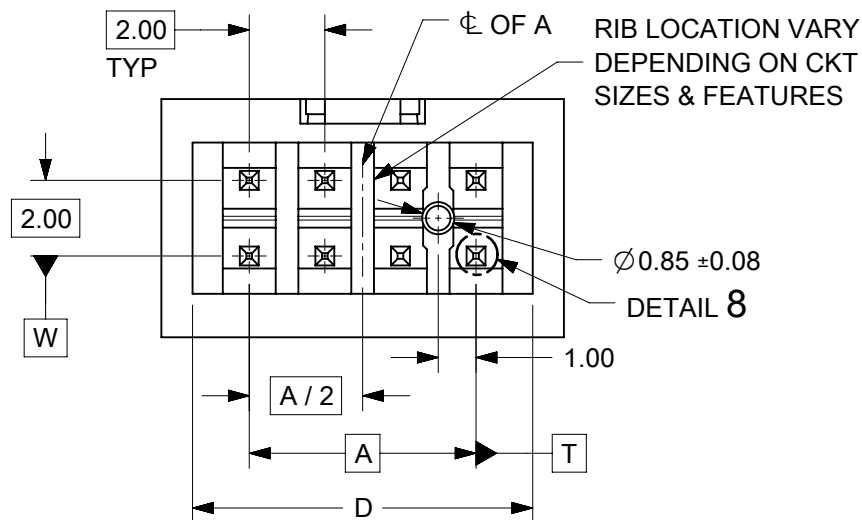
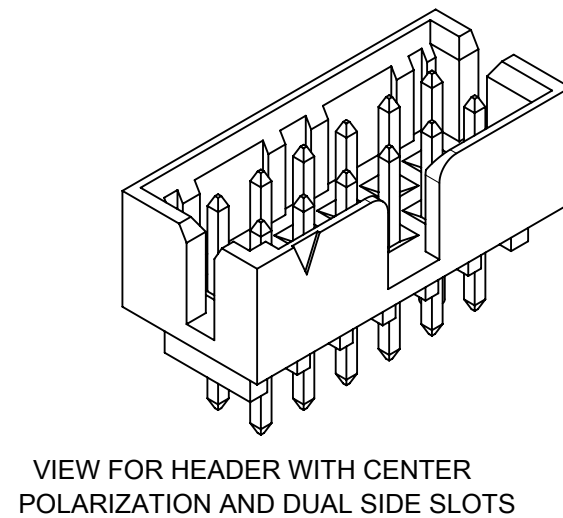
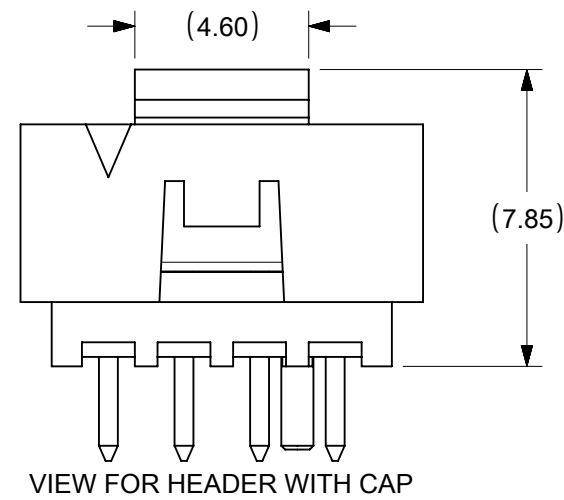
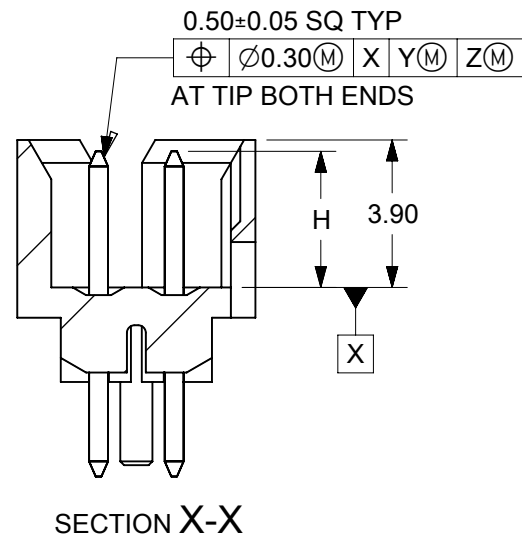
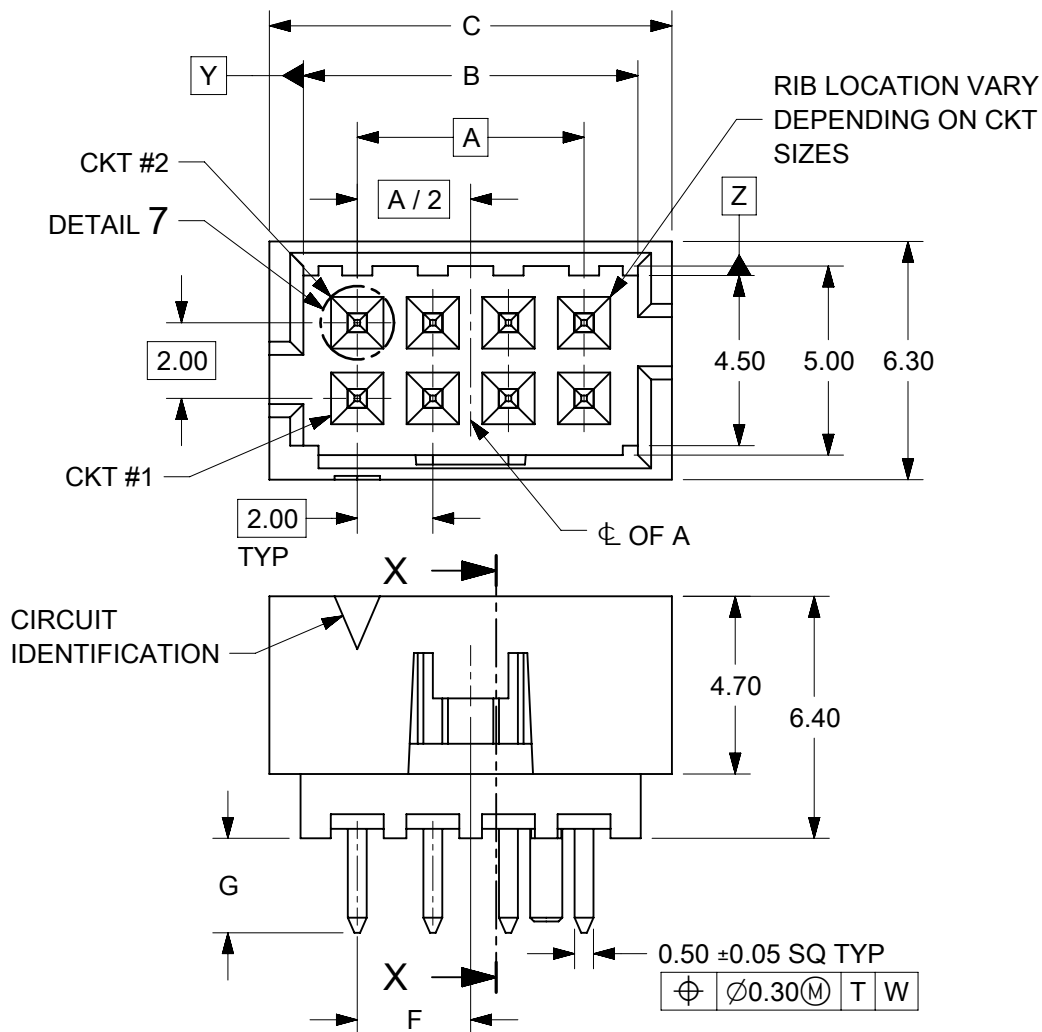
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES
AND CRIMP 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)

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DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex						
mm		NTS											
GENERAL TOLERANCES (UNLESS SPECIFIED)													
		MM	INCH				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
4 PLACES	±		±										
3 PLACES	±		±										
2 PLACES	±	0.2	±										
1 PLACE	±		±										
0 PLACES	±		±	EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11			PRODUCT CUSTOMER DRAWING						
ANGULAR TOL ± 3.0 °													
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				INITIAL REVISION:			DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION		
				DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29			SD-87831-0001		PSD	001	A24		
THIRD ANGLE PROJECTION				DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET		4 OF 14	

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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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							
						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
		87831-0620	N.A	N.A	2														
		87831-0621	N.A	N.A	3														
		87831-0636	N.A	N.A	4														
D	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES	N.A	2.50	2.00	2.50					
	87831-0629	N.A	N.A	3															
	87831-0641	N.A	87831-0647	2	N.A	YES	YES	N.A	N.A	N.A	2.50								
	87831-0642	N.A	87831-5552	3															
C	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A		2.50							
	87831-5242	N.A	N.A	3															
	87831-6241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A	2.50								
	87831-6242	N.A	N.A	3															
B	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A		2.50							
	87831-0644	N.A	N.A	3															
	87831-0645	N.A	N.A	2	N.A	YES	N.A	YES	N.A	YES	2.50								
	87831-0646	N.A	N.A	3															
A	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	N.A	N.A	YES	N.A	YES	N.A									
	87831-5121	N.A	N.A	3															
	87831-5136	N.A	N.A	4															
PLATING OPTIONS:										THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION DIMENSION UNITS mm SCALE NTS GENERAL TOLERANCES (UNLESS SPECIFIED) MM INCH 4 PLACES ± ± 3 PLACES ± ± 2 PLACES ± 0.2 ± 1 PLACE ± ± 0 PLACES ± ± ANGULAR TOL ± 3.0 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION DRAWING A3-SIZE SERIES 87831 MATERIAL NUMBER SEE TABLE CUSTOMER GENERAL MARKET SHEET NUMBER 5 OF 14 EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2023/08/14 2023/09/11 2023/09/11 DOCUMENT NUMBER SD-87831-0001 DOC TYPE PSD DOC PART 001 REVISION A24 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING molex 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2023/09/11 2023/09/11 2015/04/15 2015/06/29 2023/08/14 2									

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: 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)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER		
mm		NTS							
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11					
	MM	INCH							
4 PLACES	±	±							
3 PLACES	±	±							
2 PLACES	±	0.2	±						
1 PLACE	±	±		INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29			PRODUCT CUSTOMER DRAWING		
0 PLACES	±	±							
ANGULAR TOL ± 3.0 °							DOCUMENT NUMBER		DOC TYPE
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SD-87831-0001		PSD	001	A24	
				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
				SEE TABLE		GENERAL MARKET		6 OF 14	
THIRD ANGLE PROJECTION		DRAWING		SERIES					
		A3-SIZE		87831					

DOCUMENT STATUS	P1	RELEASE DATE	2023/09/11	04:36:51
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10		9		8		7		6		5		4		3		2		1					
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	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTE R POLARI ZATION	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	87831-1070		2																		
	87831-1021	N.A	87831-5562		3																		
	87831-1036	N.A	N.A		4																		
	87831-1010	N.A	87831-5561		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																		
	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																		
	87831-1032	N.A	N.A		2													N.A		YES	YES	N.A	N.A
	87831-1043	N.A	N.A		2																		
	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	N.A	N.A	YES	N.A	YES	YES							2.50					
	87831-1229	N.A	87831-5558		3																		
	87831-1258	N.A	87831-5567		2																		
	87831-1241	N.A	N.A		2															N.A	YES	YES	N.A
	87831-1242	N.A	N.A		3																		
	87831-1255	87831-1256	N.A		2	N.A	YES	YES	N.A	N.A	YES												
	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
	87831-1245	N.A	N.A		2																		
	87831-1246	N.A	N.A		3																		
	PLATING OPTIONS: 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																						
DOCUMENT STATUS		P1	RELEASE DATE	2023/09/11	04:36:51	7		6		5		4		3		2		1					
FORMAT: Met-lega-master-ib-prod-A3 REVISION: E1 DATE: 2021/05/01		9		8		7		6		5		4		3		2		1					

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	MM	INCH
4 PLACES	±	±
3 PLACES	±	±
2 PLACES	± 0.2	±
1 PLACE	±	±
0 PLACES	±	±
ANGULAR TOL	± 3.0 °	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

8 OF 14

EC NO: 761863
DRWN: SUAIFR
CHK'D: GGA
APPR: GGA

2023/08/14
2023/09/11
2023/09/11

INITIAL REVISION:
DRWN: GMENARLY
APPR: KHLIM

2015/04/15
2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

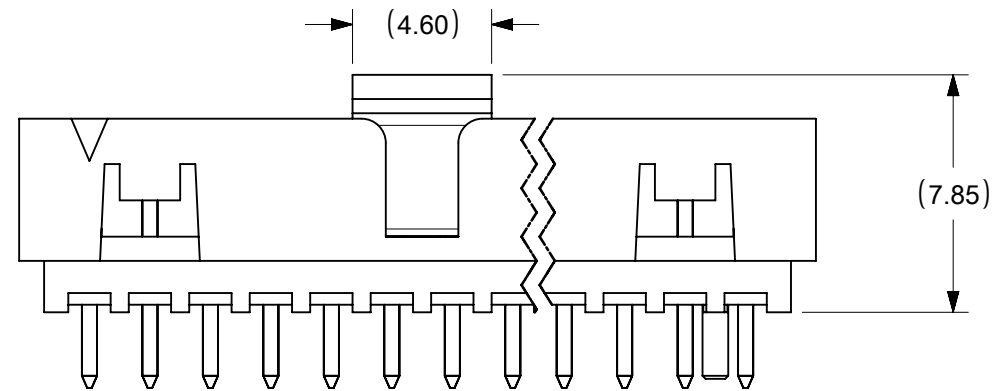
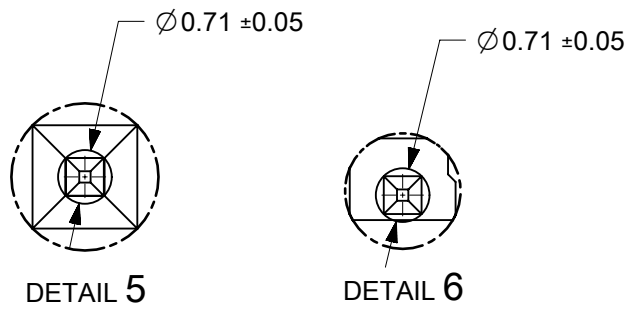
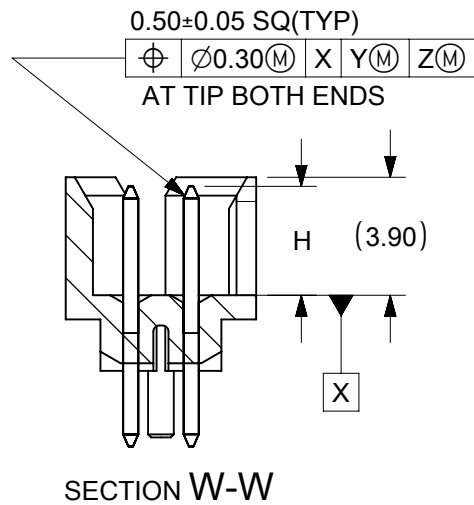
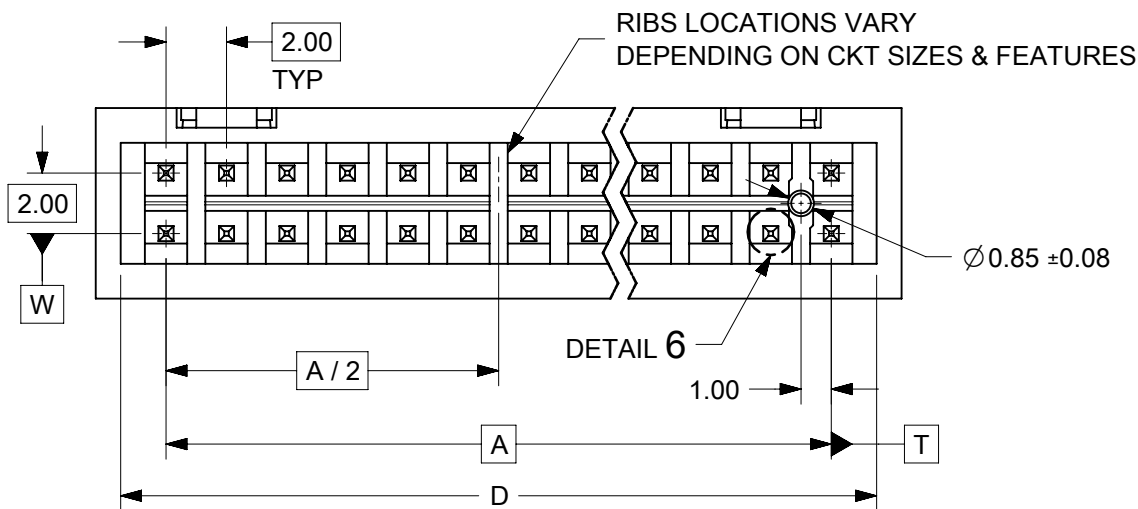
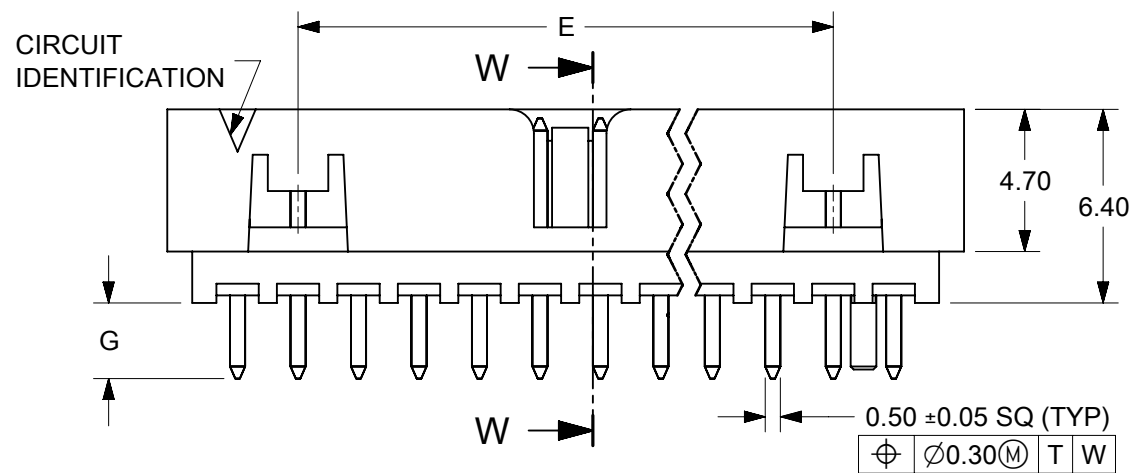
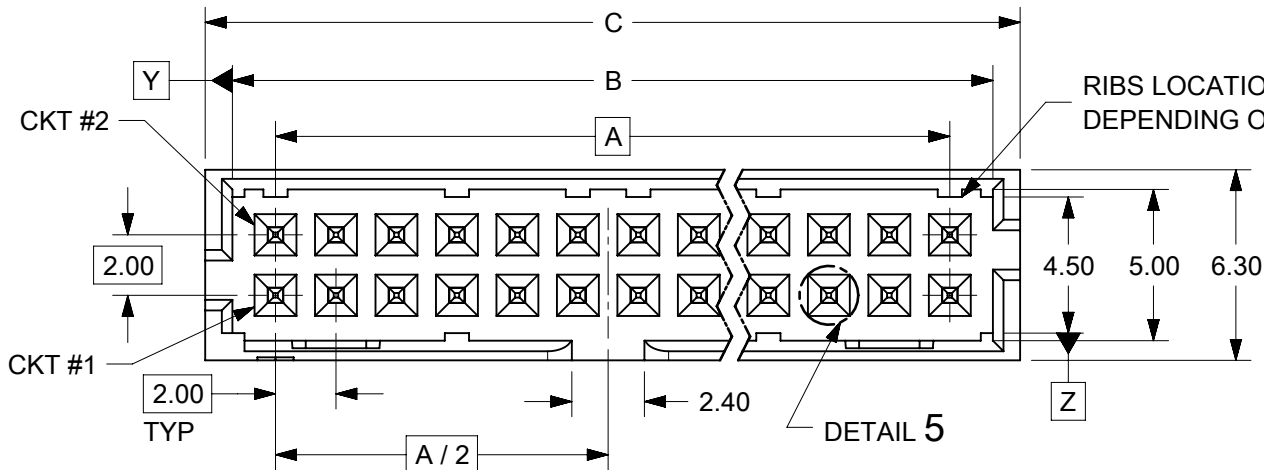
DOC PART

001

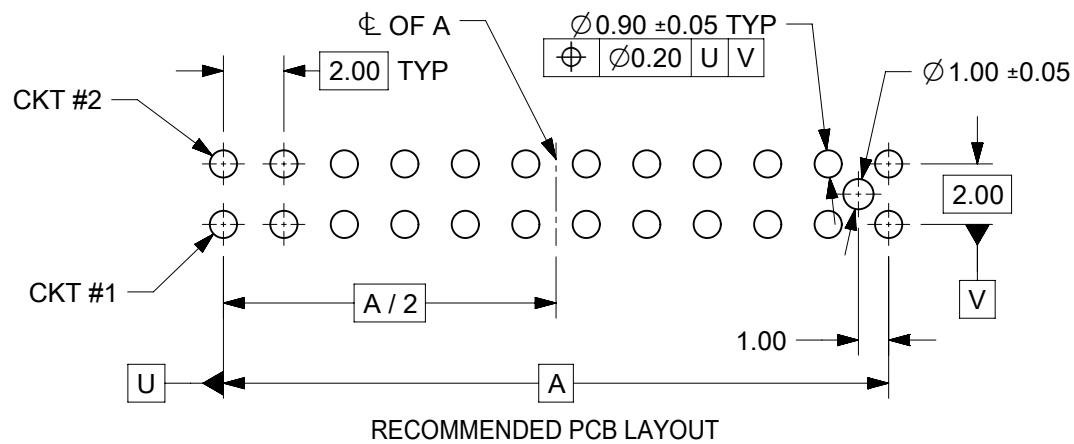
REVISION

A24

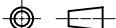
14 TO 50 CIRCUITS



VIEW FOR HEADER WITH CAP



- 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)

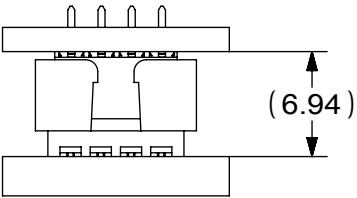
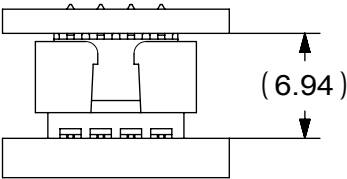
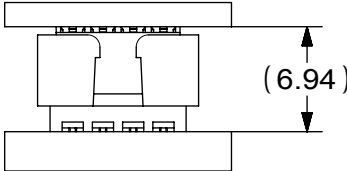
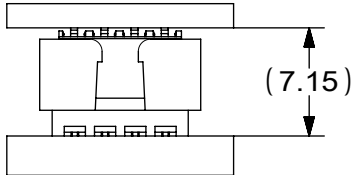
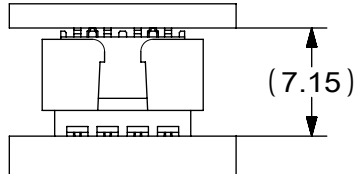
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													
DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.			molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
mm	NTS												
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 761863 DRWN: SUAIFR CHK'D: GGA APPR: GGA 2023/08/14 2023/09/11 2023/09/11									
	MM	INCH											
4 PLACES	±	±											
3 PLACES	±	±											
2 PLACES	±	0.2											
1 PLACE	±	±	INITIAL REVISION: DRWN: GMENARLY APPR: KHLIM 2015/04/15 2015/06/29			PRODUCT CUSTOMER DRAWING							
0 PLACES	±	±											
ANGULAR TOL ± 3.0 °				DOCUMENT NUMBER		DOC TYPE		DOC PART	REVISION				
				SD-87831-0001		PSD		001	A24				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER	CUSTOMER	SHEET NUMBER	
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET	

10	9	8	7	6	5	4	3	2	1																																																																																																			
22 TO 30 CIRCUITS																																																																																																												
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION																																																																																																
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H																																																																																									
22	87831-2219	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	20.00	22.85	24.65	23.00	16.00	N.A	2.50	3.60±0.20																																																																																									
	87831-2220	N.A	N.A	N.A	2																																																																																																							
	87831-2221	N.A	N.A	N.A	3																																																																																																							
	87831-2236	N.A	N.A	N.A	4																																																																																																							
	87831-2228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																																										
	87831-2229	N.A	N.A	N.A	3																																																																																																							
24	87831-2419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	22.00	24.85	26.65	25.00	18.00	N.A	2.50	3.60±0.20																																																																																									
	87831-2420	N.A	N.A	87831-7420	2																																																																																																							
	87831-2421	N.A	N.A	N.A	3																																																																																																							
	87831-2436	N.A	N.A	N.A	4																																																																																																							
	87831-2428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																																										
	87831-2429	N.A	N.A	N.A	3																																																																																																							
	87831-2435	N.A	N.A	N.A	3																																																																																																							
	87831-2445	N.A	N.A	N.A	3																																																																																																							
	87831-2410	N.A	N.A	N.A	2													YES		N.A	YES	N.A	YES	N.A	3.50																																																																																			
26	87831-2619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	24.00	26.85	28.65	27.00	20.00	N.A	2.50	3.60±0.20																																																																																									
	87831-2620	87831-2630	87831-5555	N.A	2																																																																																																							
	87831-2621	N.A	N.A	N.A	3																																																																																																							
	87831-2636	N.A	N.A	N.A	4																																																																																																							
	87831-2628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																																										
	87831-2629	N.A	N.A	N.A	3																																																																																																							
	87831-2610	N.A	N.A	N.A	2															YES	N.A	YES	N.A	YES	N.A	3.50																																																																																		
28	87831-2819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	26.00	28.85	30.65	29.00	22.00	N.A	2.50	3.60±0.20																																																																																									
	87831-2820	N.A	N.A	N.A	2																																																																																																							
	87831-2821	N.A	N.A	N.A	3																																																																																																							
	87831-2836	N.A	N.A	N.A	4																																																																																																							
	87831-2828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																																										
	87831-2829	N.A	N.A	N.A	3																																																																																																							
30	87831-3019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	28.00	30.85	32.65	31.00	24.00	N.A	2.50	3.60±0.20																																																																																									
	87831-3020	N.A	N.A	N.A	2																																																																																																							
	87831-3021	N.A	N.A	N.A	3																																																																																																							
	87831-3036	N.A	N.A	N.A	4																																																																																																							
	87831-3028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																																										
	87831-3029	N.A	N.A	N.A	3																																																																																																							
	87831-3035	N.A	N.A	N.A	3																																																																																																							
	87831-3037	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50																																																																																										
	87831-3010	87831-3030	87831-3050	N.A	2	YES	N.A	YES	N.A	YES	N.A							3.50																																																																																										
PLATING OPTIONS:																																																																																																												
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DIMENSION UNITS	SCALE	CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.	molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																																																																																																									
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10		9		8		7		6		5		4		3		2		1																																																																							
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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																																																																						
	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																																																																																						
E	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	N.A	YES	N.A	YES	YES							2.50																																																																							
		87831-3429	N.A	N.A	3																																																																																				
		87831-3435	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50																																																																							
D	36	87831-3619	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	34.00	36.85	38.65	37.00	30.00	N.A	2.50	3.60±0.20																																																																						
		87831-3620	N.A	87831-5564	2																																																																																				
		87831-3621	N.A	N.A	3																																																																																				
		87831-3636	N.A	N.A	4																																																																																				
		87831-3628	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50																																																																							
		87831-3629	N.A	N.A	3																																																																																				
	C	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	N.A	YES	N.A	YES	YES	2.50																																																																													
87831-3829			N.A	N.A	3																																																																																				
B		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																																																																																				
	87831-4010		N.A	N.A	2	YES	N.A	YES	N.A	YES	N.A	3.50																																																																													
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4 PLACES	±	±																																																																																							
3 PLACES	±	±																																																																																							
2 PLACES	± 0.2	±																																																																																							
1 PLACE	±	±																																																																																							
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			A3-SIZE	87831	SEE TABLE	GENERAL MARKET		12 OF 14																																																																																	

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	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATI ON	PEG	DIMENSION							
							DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
	42	87831-4219	N.A	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	87831-4230	2														
		87831-4221	N.A	N.A	N.A	3														
		87831-4236	N.A	N.A	N.A	4														
		87831-4228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
87831-4229	N.A	N.A	N.A	3																
E	44	87831-4419	N.A	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	N.A	2														
		87831-4421	N.A	N.A	N.A	3														
		87831-4436	N.A	N.A	N.A	4														
		87831-4428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
		87831-4429	N.A	N.A	N.A	3														
	87831-4435	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	3.50								
D	46	87831-4619	N.A	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	N.A	2														
		87831-4621	N.A	N.A	N.A	3														
		87831-4636	N.A	N.A	N.A	4														
		87831-4628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
		87831-4629	N.A	N.A	N.A	3														
	C	48	87831-4819	N.A	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
87831-4820			N.A	N.A	N.A	2														
87831-4821			N.A	N.A	N.A	3														
87831-4836			N.A	N.A	N.A	4														
87831-4828			N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES	2.50							
87831-4829		N.A	N.A	N.A	3															
B	50	87831-5019	N.A	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	N.A	2														
		87831-5021	N.A	N.A	N.A	3														
		87831-5036	N.A	N.A	N.A	4														
		87831-5028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
		87831-5029	N.A	N.A	N.A	3														
	87831-5035	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES	3.50								
B																				
PLATING OPTIONS:																				
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
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DOCUMENT STATUS		P1	RELEASE DATE		2023/09/11	04:36:51														
10		9		8		7		6		5		4		3		2		1		

BOARD TO BOARD (BTB) DISTANCE

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

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	MM	INCH
4 PLACES	±	±
3 PLACES	±	±
2 PLACES	± 0.2	±
1 PLACE	±	±
0 PLACES	±	±
ANGULAR TOL	± 3.0 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

CURRENT REV DESC: REMOVED OBSOLETE PART
NUMBERS AS PER PCN#512581.

EC NO: 761863

DRWN: SUAIFR

CHK'D: GGA

APPR: GGA

2023/08/14

2023/09/11

2023/09/11

INITIAL REVISION:

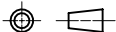
DRWN: DRWN BY

APPR: APPR BY

XXXX/XX/XX

XXXX/XX/XX

THIRD ANGLE PROJECTION



DRAWING

SERIES

A3-SIZE

87831

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

PRODUCT CUSTOMER DRAWING

GENERAL MARKET

SHEET NUMBER

14 OF 14

DOCUMENT STATUS

P1

RELEASE DATE

2023/09/11 04:36:51

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REVISION: E1
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