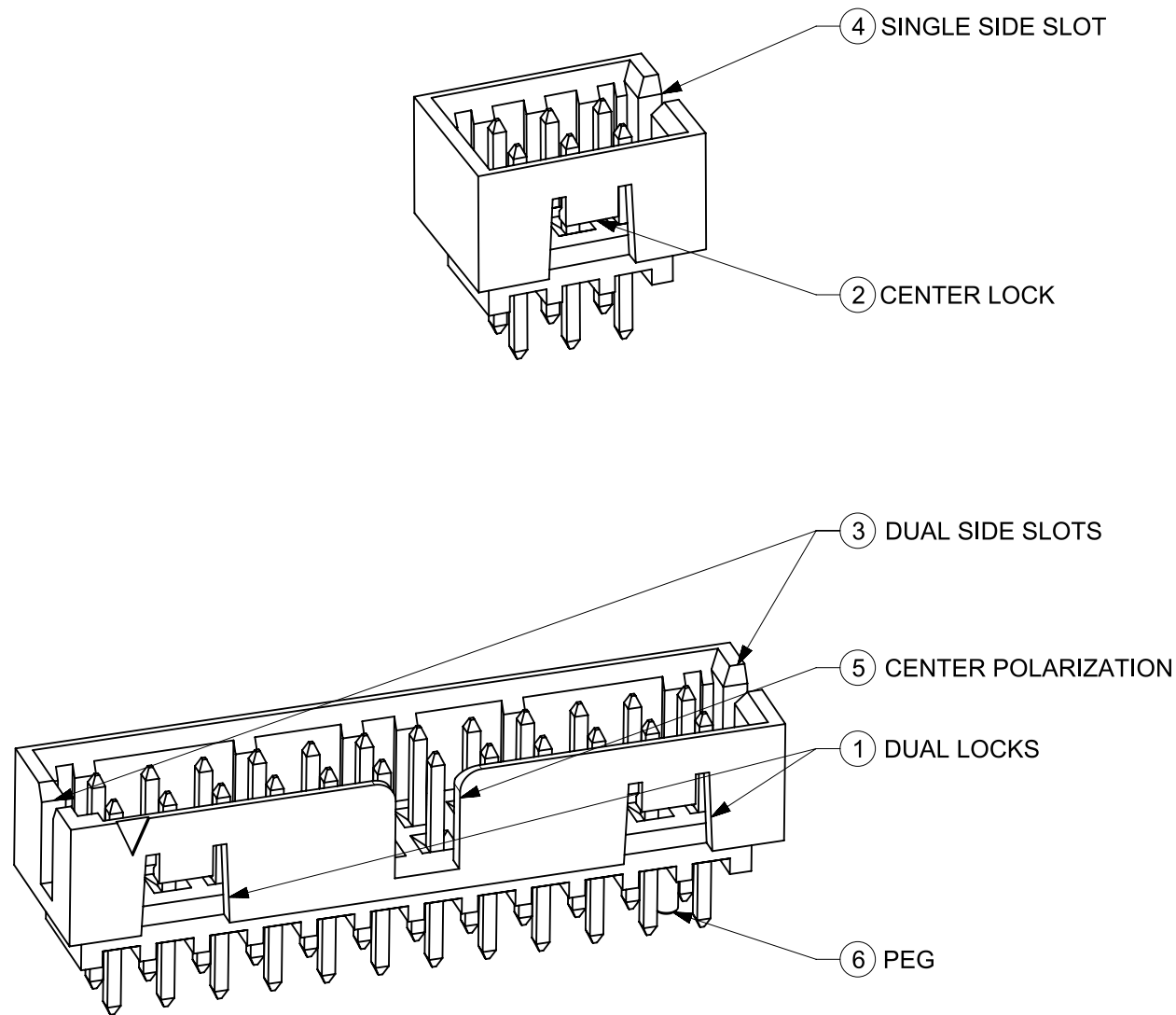


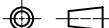
FEATURES SELECTION GUIDE



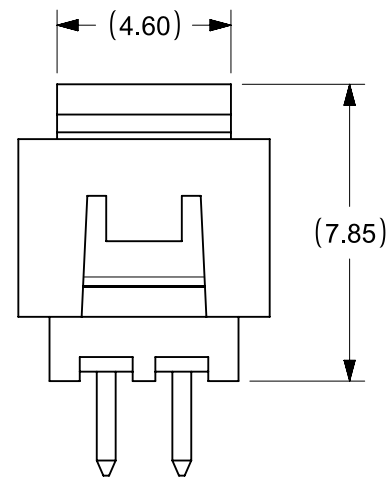
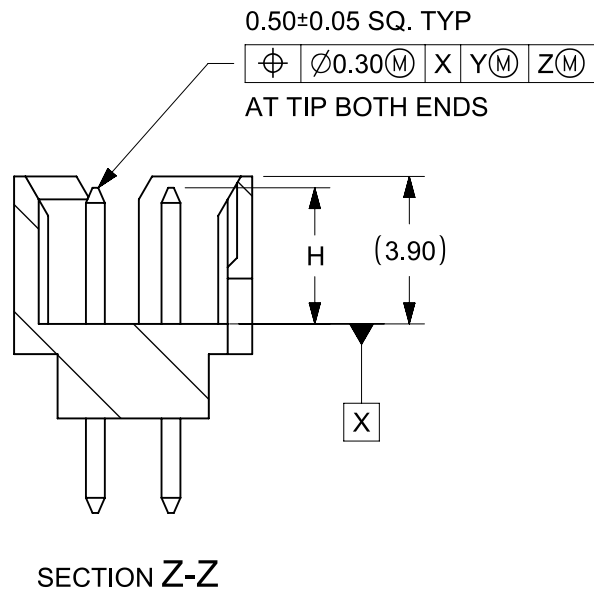
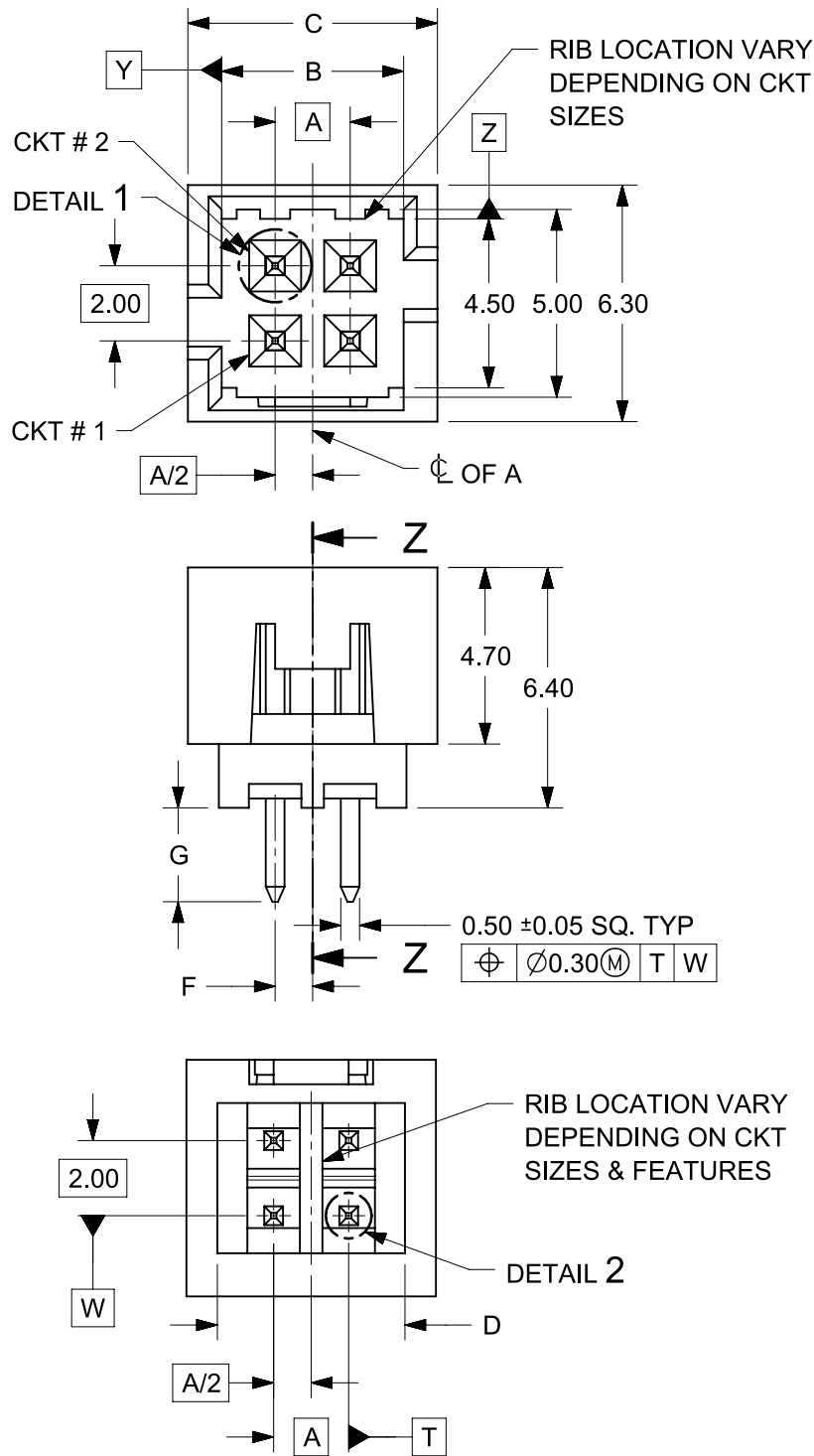
PACKAGING SPECIFICATION TABLE

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	

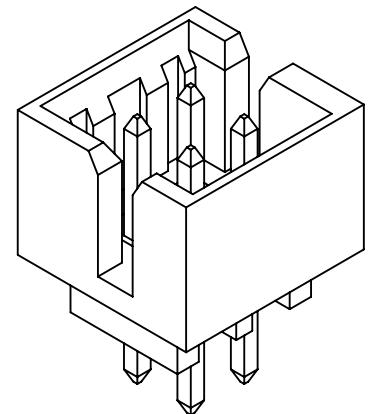
CIRCUIT SIZE		FEATURES						
		FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
		① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3	
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	N.A	YES	N.A	N.A		
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5	
	N.A	N.A	YES	N.A	N.A	YES		
	N.A	YES	YES	N.A	N.A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

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DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers		molex					
mm		NTS									
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER							
	MM	INCH									
4 PLACES	± 0	± 0									
3 PLACES	± 0	± 0									
2 PLACES	± 0.2	± 0									
1 PLACE	± 0	± 0		PRODUCT CUSTOMER DRAWING							
0 PLACES	± 0	± 0									
ANGULAR TOL		± 3°		DOCUMENT NUMBER		DOC TYPE		DOC PART	REVISION		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION 		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER	SHEET NUMBER
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET	

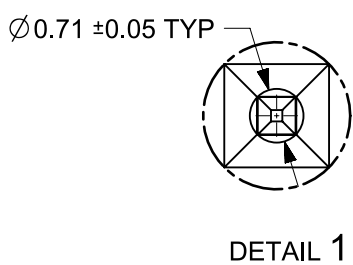
4 CIRCUITS



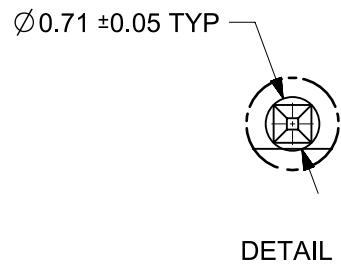
VIEW FOR
HEADER WITH CAP



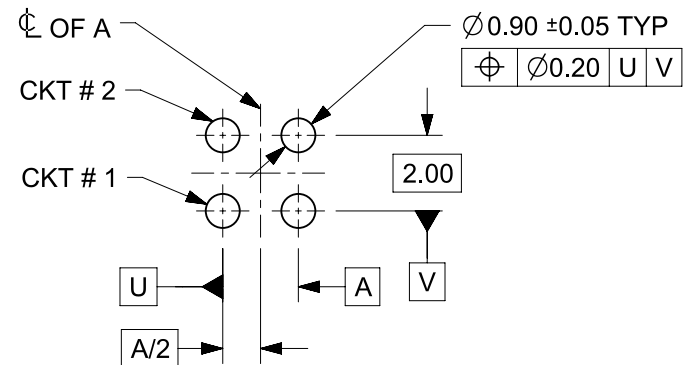
VIEW FOR HEADER
WITH ONLY DUAL SLOTS



DETAIL 1



DETAIL 2



RECOMMENDED PCB LAYOUT

NOTES:

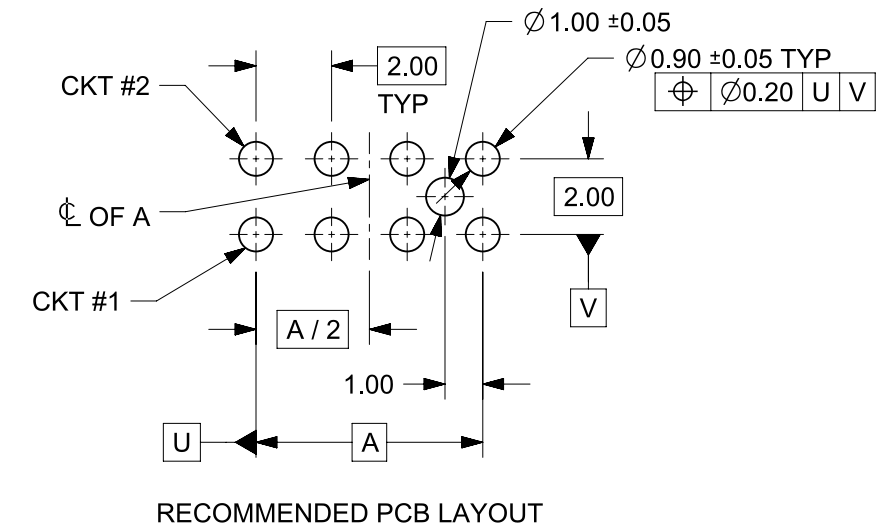
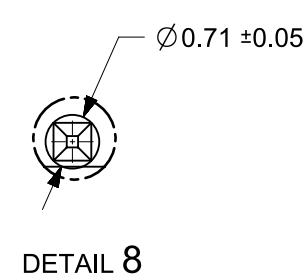
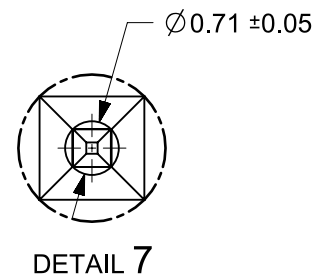
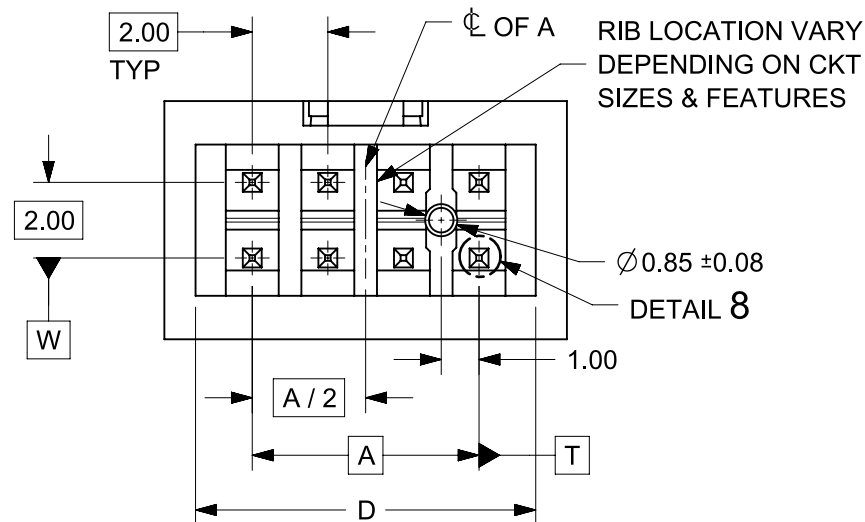
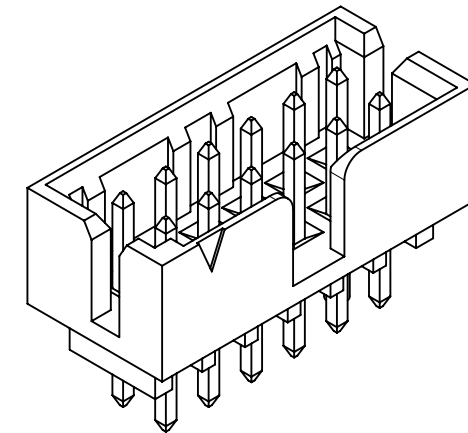
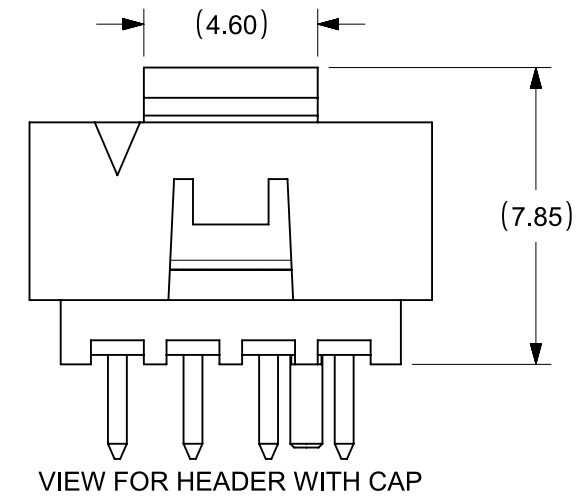
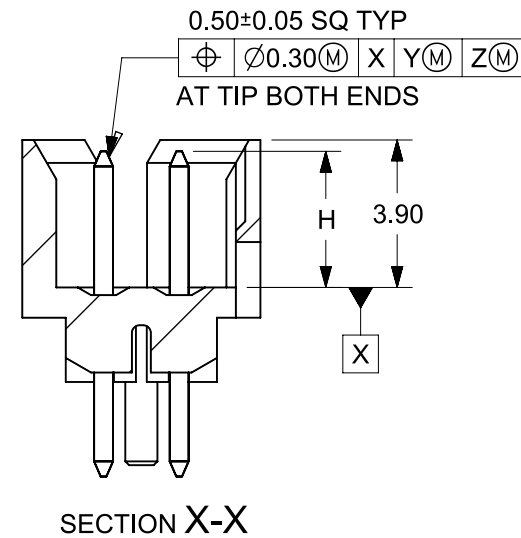
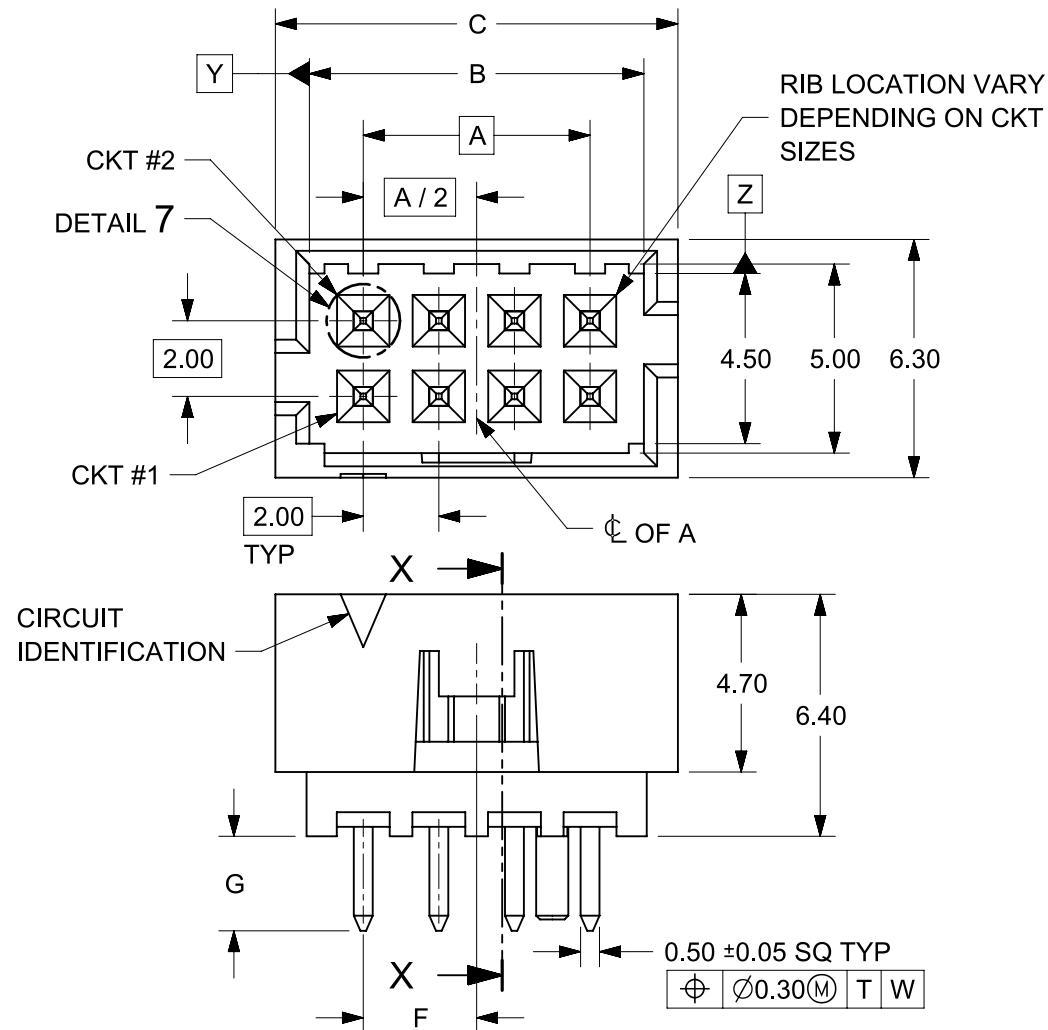
1. MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ. PHOSPHOR BRONZE
2. FINISHES: REFER TO PLATING OPTIONS
3. PRODUCT SPECIFICATION: PS-87831-027
4. PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES
AND 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		CURRENT REV DESC: Adding New Part Numbers		molex			
DIMENSION UNITS		SCALE		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
mm		NTS		PRODUCT CUSTOMER DRAWING			
GENERAL TOLERANCES (UNLESS SPECIFIED)		MM		DOCUMENT NUMBER			
		INCH		SD-87831-0001			
4 PLACES	± 0	± 0		EC NO: CO-000042098	22-Apr-2026	DOC TYPE	DOC PART
3 PLACES	± 0	± 0		DRWN: Meghraj Boodagatti	08-Jun-2026	PSD	001
2 PLACES	± 0.2	± 0		CHK'D: Meghraj Boodagatti	08-Jun-2026		A25
1 PLACE	± 0	± 0		APPR: Saravanakumar Murugesan	08-Jun-2026		
0 PLACES	± 0	± 0		INITIAL REVISION:			
ANGULAR TOL	± 3°			DRWN: GMENARLY	2015/04/15		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
				A3-SIZE	87831	SEE TABLE	2 OF 14

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														3.60 ^{+0.15} -0.10	

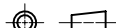
10	9	8	7	6	5	4	3	2	1																
6 CIRCUITS																									
F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION													
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	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	6	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES						N.A	6.85		8.65	7.00	N.A	N.A	2.50	3.60±0.20
		87831-0629	N.A	N.A	3																				
		87831-0641	N.A	87831-0647	2																				
		87831-0642	N.A	87831-5552	3																				
C	6	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	6.85		8.65	7.00	N.A	2.00	2.50	3.60 ^{+0.15} -0.10
		87831-5242	N.A	N.A	3																				
		87831-6241	N.A	N.A	2																				
		87831-6242	N.A	N.A	3																				
B	6	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A						N.A	6.85	8.65	7.00	N.A	2.00	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																				
A	6	87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES						N.A	6.85	8.65	7.00	N.A	2.00	2.50	3.60±0.20	
		87831-5119	N.A	N.A	1																				
		87831-5121	N.A	N.A	3																				
		87831-5136	N.A	N.A	4																				
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.																									
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: Adding New Part Numbers				molex																	
mm		NTS						MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER																	
GENERAL TOLERANCES (UNLESS SPECIFIED)																									
		MM		INCH																					
4 PLACES		± 0		± 0		EC NO: CO-000042098																			
3 PLACES		± 0		± 0		DRWN: Meghraj Boodagatti 22-Apr-2026																			
2 PLACES		± 0.2		± 0		CHK'D: Meghraj Boodagatti 08-Jun-2026																			
1 PLACE		± 0		± 0		APPR: Saravanakumar Murugesan 08-Jun-2026																			
0 PLACES		± 0		± 0		INITIAL REVISION:																			
ANGULAR TOL		± 3 °		DRWN: GMENARLY 2015/04/15				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION											
				APPR: KHLIM 2015/06/29				SD-87831-0001		PSD		001		A25											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER											
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET		5 OF 14											
DOCUMENT STATUS	Production	RELEASE DATE	08-Jun-2026	04:36:51																					
10	9	8	7	6	5	4	3	2	1																

8 TO 12 CIRCUITS



- 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)

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DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)								MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER									
	MM	INCH		EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026				PRODUCT CUSTOMER DRAWING									
4 PLACES	± 0	± 0															
3 PLACES	± 0	± 0															
2 PLACES	± 0.2	± 0															
1 PLACE	± 0	± 0															
0 PLACES	± 0	± 0		INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				DOCUMENT NUMBER SD-87831-0001				DOC TYPE PSD		DOC PART 001		REVISION A25	
ANGULAR TOL ± 3 °																	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION 		DRAWING A3-SIZE		SERIES 87831		MATERIAL NUMBER SEE TABLE		CUSTOMER GENERAL MARKET		SHEET NUMBER 6 OF 14			

10	9	8	7	6	5	4	3	2	1																			
8 CIRCUITS																												
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION																	
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H										
8	87831-0819	N.A	N.A	1	N.A	N.A	YES	N.A	YES	N.A	6.00	8.85	10.65	9.00	N.A	N.A	2.50	3.60±0.20										
	87831-0820	N.A	N.A	2																								
	87831-0821	N.A	N.A	3																								
	87831-0836	N.A	N.A	4																								
	87831-0828	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						N.A	YES		N.A	YES	N.A	N.A	2.50	3.60±0.20				
	87831-0829	N.A	N.A	3																								
	87831-0841	N.A	87831-5551	2																								
	87831-0842	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						N.A	YES		N.A	N.A	N.A	N.A	2.50		3.60±0.20			
	87831-5841	N.A	N.A	2																								
	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	YES		N.A	N.A	N.A	N.A	3.50			3.60±0.20		
	87831-5541	N.A	N.A	2																								
	87831-5542	N.A	N.A	3																								
	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A						N.A	YES		N.A	N.A	N.A	N.A	2.80				3.60±0.20	
	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	YES		N.A	N.A	N.A	N.A	2.50					3.60±0.20
	87831-0845	N.A	N.A	2																								
87831-0846	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.

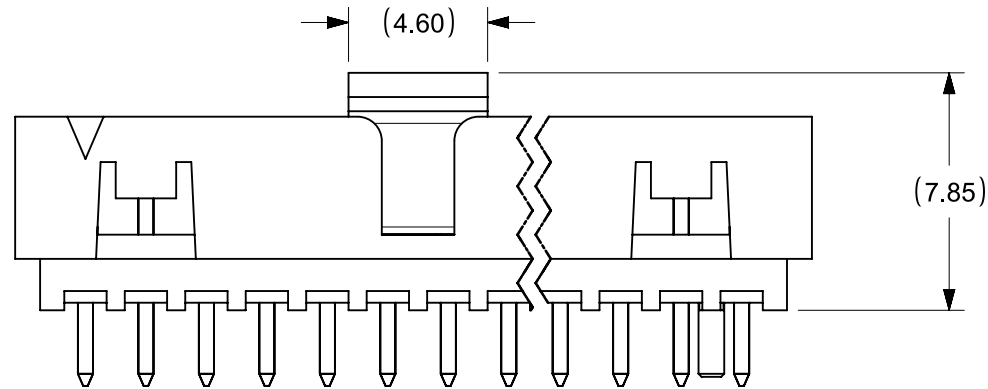
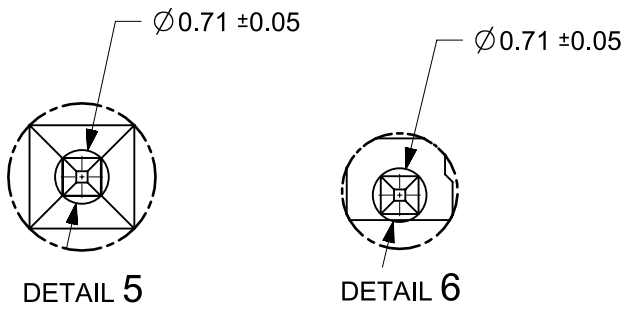
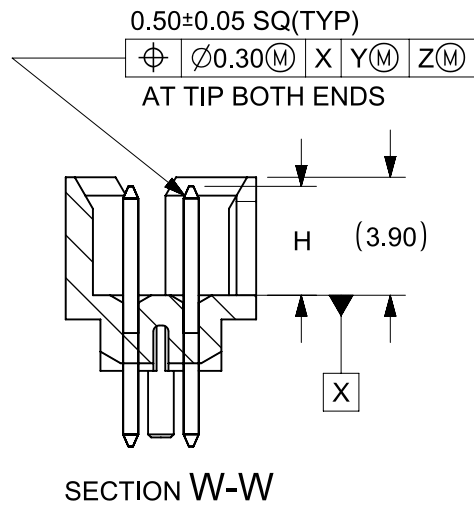
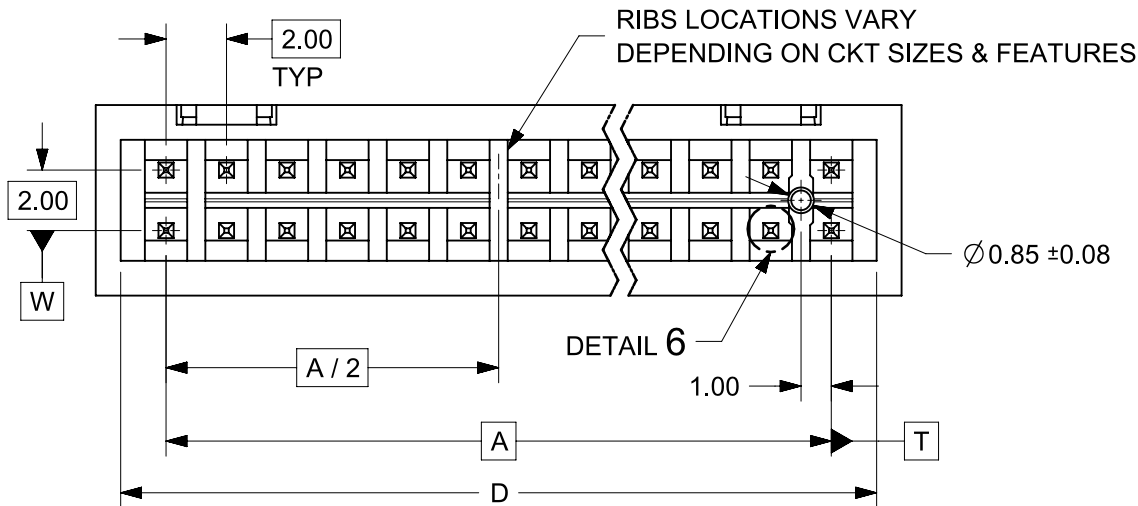
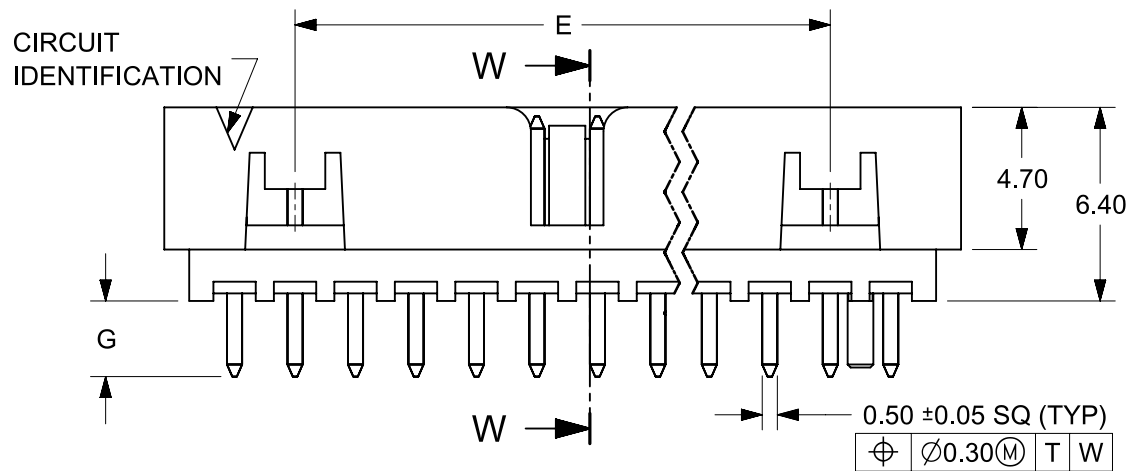
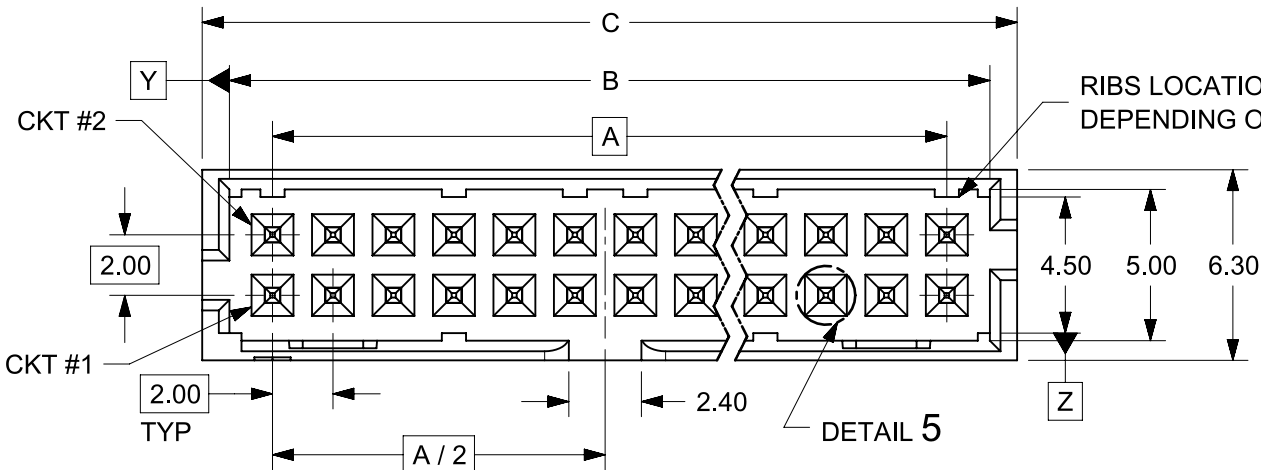
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

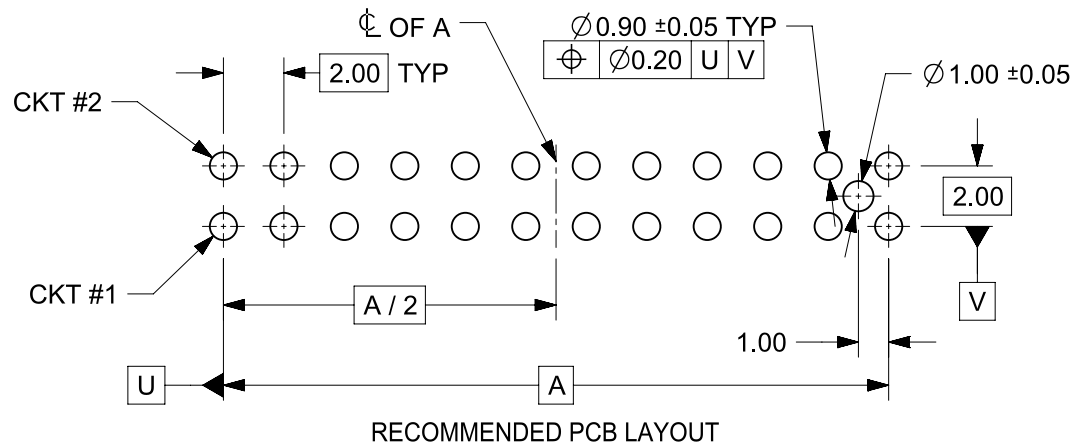
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DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				moLEX MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
mm		NTS												
GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING										
		MM	INCH	EC NO: CO-000042098				DOCUMENT NUMBER				DOC TYPE	DOC PART	REVISION
4 PLACES	± 0	± 0	± 0	DRWN: Meghraj Boodagatti 22-Apr-2026				SD-87831-0001				PSD	001	A25
3 PLACES	± 0	± 0	± 0	CHK'D: Meghraj Boodagatti 08-Jun-2026										
2 PLACES	± 0.2	± 0	± 0	APPR: Saravanakumar Murugesan 08-Jun-2026										
1 PLACE	± 0	± 0	± 0	INITIAL REVISION:										
0 PLACES	± 0	± 0	± 0	DRWN: GMENARLY 2015/04/15										
ANGULAR TOL		± 3 °		APPR: KHLIM 2015/06/29										
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER		CUSTOMER		SHEET NUMBER		
						A3-SIZE	87831	SEE TABLE		GENERAL MARKET		7 OF 14		

DOCUMENT STATUS	Production	RELEASE DATE	08-Jun-2026	04:36:51				
9	8	7	6	5	4	3	2	1

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		CURRENT REV DESC: Adding New Part Numbers		molex			
DIMENSION UNITS		SCALE		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
mm		NTS		PRODUCT CUSTOMER DRAWING			
GENERAL TOLERANCES (UNLESS SPECIFIED)		MM		DOCUMENT NUMBER			
		INCH		SD-87831-0001			
4 PLACES		± 0		PSD			
3 PLACES		± 0		001			
2 PLACES		± 0.2		A25			
1 PLACE		± 0					
0 PLACES		± 0					
ANGULAR TOL		± 3°					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION					
		DRAWING					
		SERIES					
		MATERIAL NUMBER					
		CUSTOMER					
		SHEET NUMBER					
		A3-SIZE					
		87831					
		SEE TABLE					
		GENERAL MARKET					
		9 OF 14					

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	
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														
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														
	87831-3010	87831-3030	87831-3050	N.A	2													YES	
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		Production	RELEASE DATE		08-Jun-2026		04:36:51												
10		9		8		7		6		5		4		3		2		1	

10	9	8	7	6	5	4	3	2	1										
32 TO 40 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION								
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
32	87831-3219	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	30.00	32.85	34.65	33.00	26.00	N.A	2.50	3.60±0.20	
	87831-3220	N.A	N.A	2															
	87831-3221	N.A	N.A	3															
	87831-3236	N.A	N.A	4															
	87831-3228	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-3229	N.A	N.A	3															
34	87831-3419	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	32.00	34.85	36.65	35.00	28.00	N.A	2.50	3.60±0.20	
	87831-3420	N.A	N.A	2															
	87831-3421	N.A	N.A	3															
	87831-3436	N.A	N.A	4															
	87831-3428	N.A	N.A	2	YES	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		
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															
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															
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		
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		Production	RELEASE DATE	08-Jun-2026	04:36:51														
FORMAT: Molex-aga-master-ib-prod-A3 REVISION: E1 DATE: 2021/05/01		9	8	7	6	5	4	3	2	1									

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	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0

ANGULAR TOL

± 3 °

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

12 OF 14

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

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

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

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DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

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DOC PART

001

REVISION

A25

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

12 OF 14

molex

MILLIGRID

2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER

2015/04/15

2015/06/29

A3-SIZE

87831

10	9	8	7	6	5	4	3	2	1										
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	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														
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	
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														
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	3.60±0.20
	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														
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	
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.																			

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

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

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

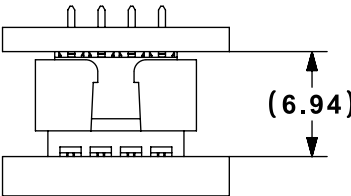
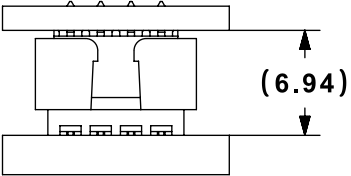
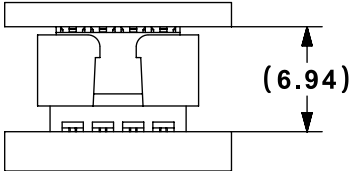
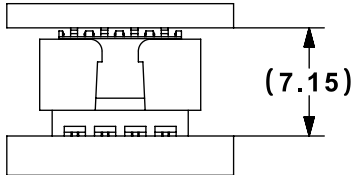
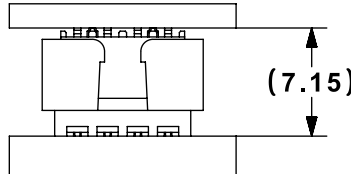
SHEET NUMBER

13 OF 14

A3-SIZE

87831

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		SCALE	
mm		NTS	
GENERAL TOLERANCES (UNLESS SPECIFIED)			
	MM	INCH	
4 PLACES	± 0	± 0	
3 PLACES	± 0	± 0	
2 PLACES	± 0.2	± 0	
1 PLACE	± 0	± 0	
0 PLACES	± 0	± 0	
ANGULAR TOL		± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098
DRWN: Meghraj Boodagatti
CHK'D: Meghraj Boodagatti
APPR: Saravanakumar Murugesan

22-Apr-2026
08-Jun-2026
08-Jun-2026

INITIAL REVISION:
DRWN: DRWN BY
APPR: APPR BY

XXXX/XX/XX
XXXX/XX/XX

DOCUMENT NUMBER
SD-87831-0001

DOC TYPE
PSD

DOC PART
001

REVISION
A25

SHEET NUMBER
14 OF 14

A3-SIZE

87831

MATERIAL NUMBER

CUSTOMER

GENERAL MARKET

DOCUMENT STATUS

Production

RELEASE DATE

08-Jun-2026 04:36:51