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ELECTRONICS

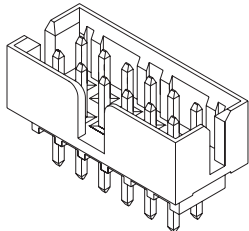
**www.Jameco.com ♦ 1-800-831-4242**

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Jameco Part Number 1934585

## 2.00mm (.079") Pitch Milli-Grid™ Header

### 87831 Shrouded Vertical, SMC



#### Features and Benefits

- Sizes 4 to 50 circuits
- Fully shrouded to protect pins during mating/unmating
- Center slot for polarization
- Front latches for mechanical locking
- Center polarization slot (6 to 12 circuits); center polarization slot and front latches (14 to 50 circuits)

#### Reference Information

Product Specification: PS-87831-027  
 Packaging: Tube (contact Molex for embossed tape)  
 UL File No.: E29179  
 CSA File No.: LR19980  
 Mates With: 50394, 51110 and 87568  
 Designed In: Millimeters

#### Electrical

Voltage: 125V  
 Current: 2.0A  
 Dielectric Withstanding Voltage: 1000V  
 Insulation Resistance: 1000 Megohms min.

#### Physical

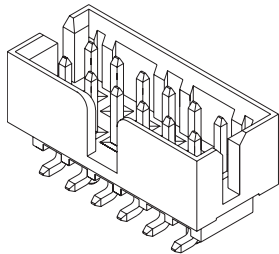
Housing: Black 4/6 nylon, UL 94V-0  
 Contact: Phosphor Bronze  
 Plating: See Table  
 Operating Temperature: -55 to +105°C

Circuits	Order No.		Lead-free
	15µm Select Gold	30µm Select Gold	
4	<a href="#">87831-0420</a>	<a href="#">87831-0421</a>	Yes
6	<a href="#">87831-0620</a>	<a href="#">87831-0621</a>	
8	<a href="#">87831-0820</a>	<a href="#">87831-0821</a>	
10	<a href="#">87831-1020</a>	<a href="#">87831-1021</a>	
12	<a href="#">87831-1220</a>	<a href="#">87831-1221</a>	
14	<a href="#">87831-1420</a>	<a href="#">87831-1421</a>	
16	<a href="#">87831-1620</a>	<a href="#">87831-1621</a>	
18	<a href="#">87831-1820</a>	<a href="#">87831-0621</a>	
20	<a href="#">87831-2020</a>	<a href="#">87831-2021</a>	
22	<a href="#">87831-2220</a>	<a href="#">87831-2221</a>	
24	<a href="#">87831-2420</a>	<a href="#">87831-2421</a>	
26	<a href="#">87831-2620</a>	<a href="#">87831-2621</a>	

Circuits	Order No.		Lead-free
	15µm Select Gold	30µm Select Gold	
28	<a href="#">87831-2820</a>	<a href="#">87831-2821</a>	Yes
30	<a href="#">87831-3020</a>	<a href="#">87831-3021</a>	
32	<a href="#">87831-3220</a>	<a href="#">87831-3221</a>	
34	<a href="#">87831-3420</a>	<a href="#">87831-3421</a>	
36	<a href="#">87831-3620</a>	<a href="#">87831-3621</a>	
38	<a href="#">87831-3820</a>	<a href="#">87831-3821</a>	
40	<a href="#">87831-4020</a>	<a href="#">87831-4021</a>	
42	<a href="#">87831-4220</a>	<a href="#">87831-4221</a>	
44	<a href="#">87831-4420</a>	<a href="#">87831-4421</a>	
46	<a href="#">87831-4620</a>	<a href="#">87831-4621</a>	
48	<a href="#">87831-4820</a>	<a href="#">87831-4821</a>	
50	<a href="#">87831-5020</a>	<a href="#">87831-5021</a>	

## 2.00mm (.079") Pitch Milli-Grid™ Header

### 87832 Shrouded SMT



#### Features and Benefits

- Sizes 4 to 50 circuits
- Fully shrouded to protect pins during mating/unmating
- Center slot for polarization
- Front latches for mechanical locking
- Locating pegs for automatic insertion process
- Center polarization slot (6 to 12 circuits); center polarization and front latches (14 to 50 circuits)
- Contact Molex for embossed tape

#### Reference Information

Product Specification: PS-87831-027  
 Packaging: Tube (contact Molex for tape and reel)  
 UL File No.: E29179  
 CSA File No.: LR19980  
 Mates With: 50394, 51110 and 87568  
 Designed In: Millimeters

#### Electrical

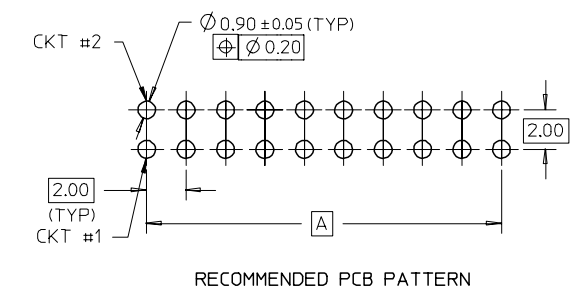
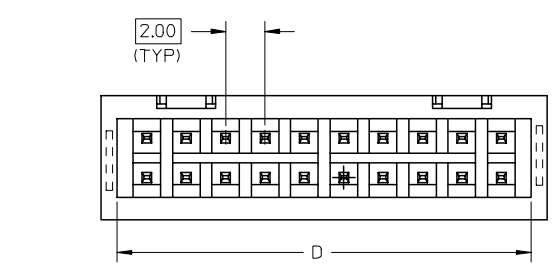
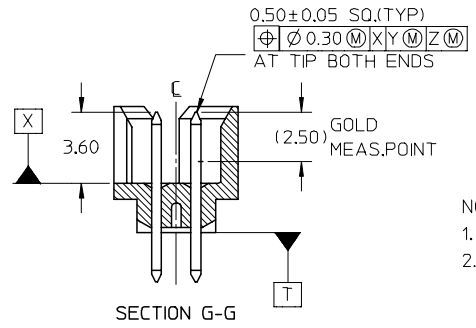
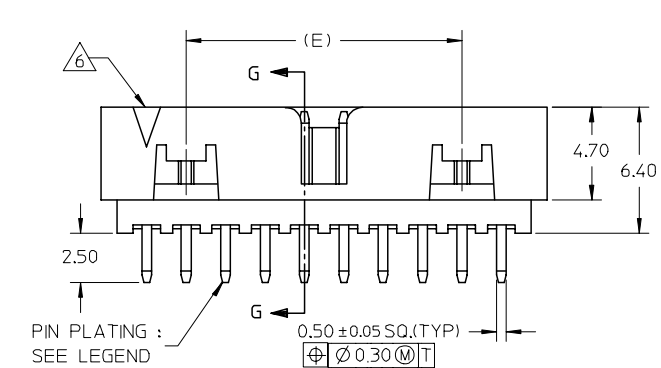
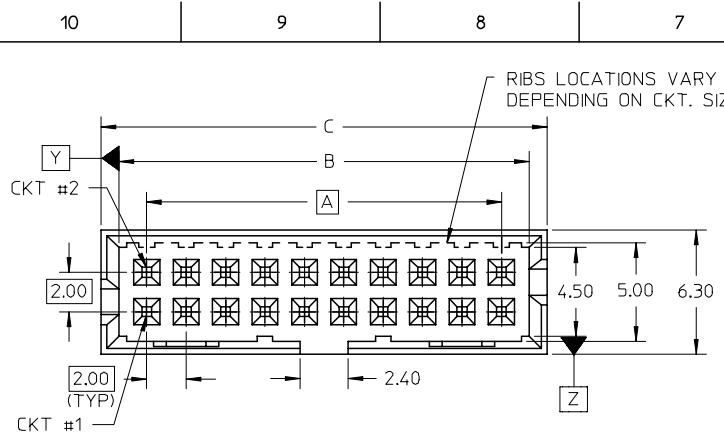
Current: 2.0A  
 Dielectric Withstanding Voltage: 1000V  
 Insulation Resistance: 1000 Megohms min.

#### Physical

Housing: Black 4/6 nylon, UL 94V-0  
 Contact: Phosphor Bronze  
 Plating: See Table  
 Operating Temperature: -55 to +105°C

Circuits	Order No.		Lead-free
	15µm Select Gold	30µm Select Gold	
4	<a href="#">87832-0420</a>	<a href="#">87832-0421</a>	Yes
6	<a href="#">87832-0620</a>	<a href="#">87832-0621</a>	
8	<a href="#">87832-0820</a>	<a href="#">87832-0821</a>	
10	<a href="#">87832-1020</a>	<a href="#">87832-1021</a>	
12	<a href="#">87832-1220</a>	<a href="#">87832-1221</a>	
14	<a href="#">87832-1420</a>	<a href="#">87832-1421</a>	
16	<a href="#">87832-1620</a>	<a href="#">87832-1621</a>	
18	<a href="#">87832-1820</a>	<a href="#">87832-1821</a>	
20	<a href="#">87832-2020</a>	<a href="#">87832-2021</a>	
22	<a href="#">87832-2220</a>	<a href="#">87832-2221</a>	
24	<a href="#">87832-2420</a>	<a href="#">87832-2421</a>	
26	<a href="#">87832-2620</a>	<a href="#">87832-2621</a>	

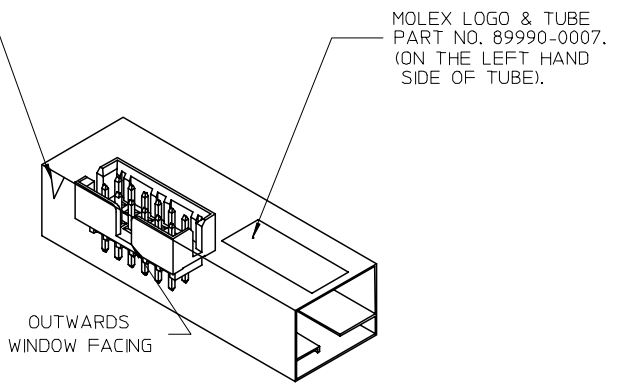
Circuits	Order No.		Lead-free
	15µm Select Gold	30µm Select Gold	
28	<a href="#">87832-2820</a>	<a href="#">87832-2821</a>	Yes
30	<a href="#">87832-3020</a>	<a href="#">87832-3021</a>	
32	<a href="#">87832-3220</a>	<a href="#">87832-3221</a>	
34	<a href="#">87832-3420</a>	<a href="#">87832-3421</a>	
36	<a href="#">87832-3620</a>	<a href="#">87832-3621</a>	
38	<a href="#">87832-3820</a>	<a href="#">87832-3821</a>	
40	<a href="#">87832-4020</a>	<a href="#">87832-4021</a>	
42	<a href="#">87832-4220</a>	<a href="#">87832-4221</a>	
44	<a href="#">87832-4420</a>	<a href="#">87832-4421</a>	
46	<a href="#">87832-4620</a>	<a href="#">87832-4621</a>	
48	<a href="#">87832-4820</a>	<a href="#">87832-4821</a>	
50	<a href="#">87832-5020</a>	<a href="#">87832-5021</a>	



**PART NUMBER LEGEND :**

- 87831 - \* \* \* \* \*
- PLATING OPTION
- 19 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
  - 20 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
  - 21 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

RED ARROW INDICATION



**NOTES:**

1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL : HOUSING : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK. PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 & 6 (EXCEPT FOR 87831-5119).
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. CKT 4 AND 6 HAS NO IDENTIFICATION TAG. REFER TO PART 87831-\*\*4\* FOR CENTRE LOCKING SLOT OPTION FOR 4 TO 12 CKT.
8. THIS HEADER MATES WITH MOLEX :
  - a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
  - b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
9. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.

ADD MOIST BAG NOTE	EC NO: S2007-0892	2007/05/04	QUALITY SYMBOLS
	DRWN:GEMENARLY	2007/05/04	
	CHKD:SKANG	2007/05/04	
	APPR:MLONG	2007/05/07	
A12	REV	DESCRIPTION	$\nabla=0$ $\triangle=0$

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES ± ---	± ---
3 PLACES ± ---	± ---
2 PLACES ± 0.2	± ---
1 PLACE ± ---	± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
DRAWN BY ATSEE	DATE 2003/10/03	TITLE MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF	MOLEX INCORPORATED	
CHECKED BY KCLING	DATE 2003/11/07	MOLEX INCORPORATED		
APPROVED BY SKTOH	DATE 2003/11/07	MATERIAL NO.	DOCUMENT NO. SD-87831-011	SHEET NO. 1 OF 2
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



	P/N IN TUBE	CKT SIZE	VOID POSITION	DIMENSION				
				A	B	C	D	E
F	87831-04**	4	-----	2.00	4.85	6.65	5.00	-----
	87831-06**	6	-----	4.00	6.85	8.65	7.00	-----
	87831-08**	8	-----	6.00	8.85	10.65	9.00	-----
	87831-10**	10	-----	8.00	10.85	12.65	11.00	-----
	87831-12**	12	-----	10.00	12.85	14.65	13.00	-----
	87831-14**	14	-----	12.00	14.85	16.65	15.00	8.00
	87831-16**	16	-----	14.00	16.85	18.65	17.00	10.00
	87831-18**	18	-----	16.00	18.85	20.65	19.00	12.00
	87831-20**	20	-----	18.00	20.85	22.65	21.00	14.00
	87831-22**	22	-----	20.00	22.85	24.65	23.00	16.00
E	87831-24**	24	-----	22.00	24.85	26.65	25.00	18.00
	87831-26**	26	-----	24.00	26.85	28.65	27.00	20.00
	87831-28**	28	-----	26.00	28.85	30.65	29.00	22.00
	87831-30**	30	-----	28.00	30.85	32.65	31.00	24.00
	87831-32**	32	-----	30.00	32.85	34.65	33.00	26.00
	87831-34**	34	-----	32.00	34.85	36.65	35.00	28.00
	87831-36**	36	-----	34.00	36.85	38.65	37.00	30.00
	87831-38**	38	-----	36.00	38.85	40.65	39.00	32.00
	87831-40**	40	-----	38.00	40.85	42.65	41.00	34.00
D	87831-42**	42	-----	40.00	42.85	44.65	43.00	36.00
	87831-44**	44	-----	42.00	44.85	46.65	45.00	38.00
	87831-46**	46	-----	44.00	46.85	48.65	47.00	40.00
	87831-48**	48	-----	46.00	48.85	50.65	49.00	42.00
	87831-50**	50	-----	48.00	50.85	52.65	51.00	44.00
	87831-5120	12	1	10.00	12.85	14.65	13.00	-----
	87831-5220	44	20	42.00	44.85	46.65	45.00	38.00
	87831-5320	24	13	22.00	24.85	26.65	25.00	18.00
	87831-5420	34	3	32.00	34.85	36.65	35.00	28.00
	87831-5520	20	20	18.00	20.85	22.65	21.00	14.00
C	87831-5620	28	13	26.00	28.85	30.65	29.00	22.00
	87831-5119	6	-----	4.00	6.85	8.65	7.00	-----
	87831-5720	34	15	32.00	34.85	36.65	35.00	28.00
	87831-5820	40	25	38.00	40.85	42.65	41.00	34.00

} NO CENTRE POLARIZATION SLOT

B

A

ADD MOIST BAG NOTE  
 EC NO: S2007-0892  
 DRWN:GMENARLY 2007/05/04  
 CHKD:SKANG 2007/05/04  
 APPR:MLONG 2007/05/07

QUALITY SYMBOLS  
 =0  
 =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.2	± ---
1 PLACE	± ---	± ---


ANGULAR ± 3 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS


DIMENSION STYLE  
MM ONLY

DRAWN BY	DATE
ATSEE	2003/10/03
CHECKED BY	DATE
KCLING	2003/11/07
APPROVED BY	DATE
SKTOH	2003/11/07

MATERIAL NO. SEE TABLE

SCALE NTS  
 DESIGN UNITS METRIC  
 THIRD ANGLE PROJECTION

TITLE  
 MGRID, SHROUDED HEADER  
 VERTICAL  
 W/SLOT & STANDOFF

 MOLEX INCORPORATED

DOCUMENT NO. SD-87831-011  
 SHEET NO. 2 OF 2

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