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Part Number:

0878313021

Status:

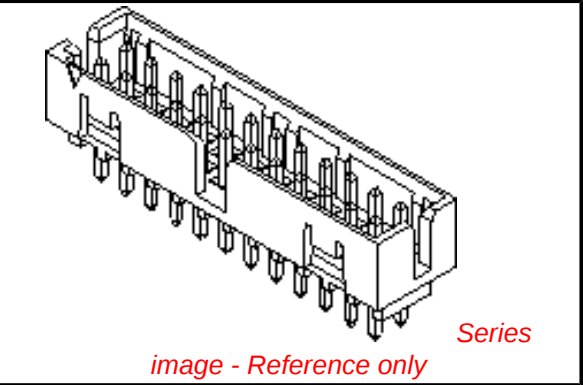
Active

Overview:

milligrid

Description:

2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 30 Circuits, 0.76µm (30µ") Gold (Au) Plating, Center Polarization Slot, with Locking Windows, without PCB Locator, Tube



Documents:	
3D Model	Product Specification PS-87831-027 (PDF)
Drawing (PDF)	RoHS Certificate of Compliance (PDF)

Agency Certification	
CSA	LR19980
UL	E29179
General	
Product Family	PCB Headers
Series	87831
Application	Wire-to-Board
Comments	Contact Molex for application in automotive industry
Overview	milligrid
Product Name	Milli-Grid™
Physical	
Breakaway	No
Circuits (Loaded)	30
Circuits (maximum)	30
Color - Resin	Black
First Mate / Last Break	No
Flammability	94V-0
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	None
Lock to Mating Part	Yes
Material - Metal	Brass, Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Nylon
Number of Rows	2
Orientation	Vertical
PC Tail Length (in)	0.098 In
PC Tail Length (mm)	2.50 mm
PCB Locator	No
PCB Retention	None
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Tube
Pitch - Mating Interface (in)	0.079 In
Pitch - Mating Interface (mm)	2.00 mm
Pitch - Term. Interface (in)	0.079 In
Pitch - Term. Interface (mm)	2.00 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	76
Plating min: Termination (µm)	1.88
Polarized to Mating Part	Side Slots (2)

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Not Reviewed

China RoHS

Need more information on product environmental compliance?

Email productcompliance@molex.com

For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

87831Series

Mates With

50394 Wire-to-Board Terminals. 51110 Wire-to-Board Crimp Housing. 87568 Wire-to-Board IDT Housings. 79107 Board-to-Board Top Entry Through Hole Receptacle. 79108 Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

Polarized to PCB	No
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	2A
Voltage - Maximum	125V

Solder Process Data

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

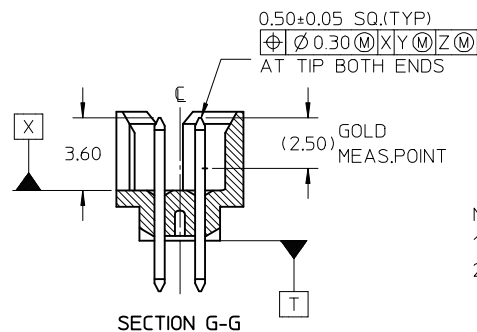
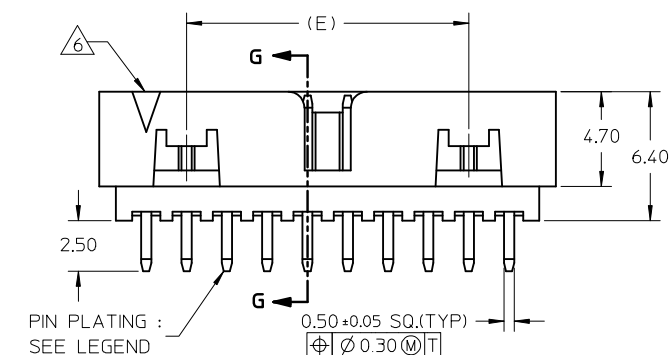
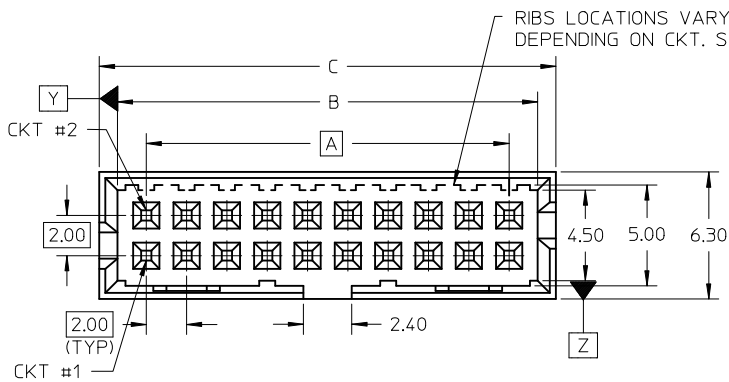
Material Info

Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87831-011

This document was generated on 05/26/2010

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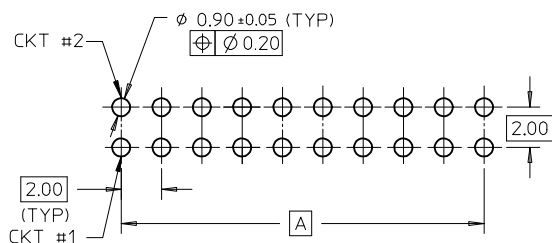


PART NUMBER LEGEND :

87831 - * * * *

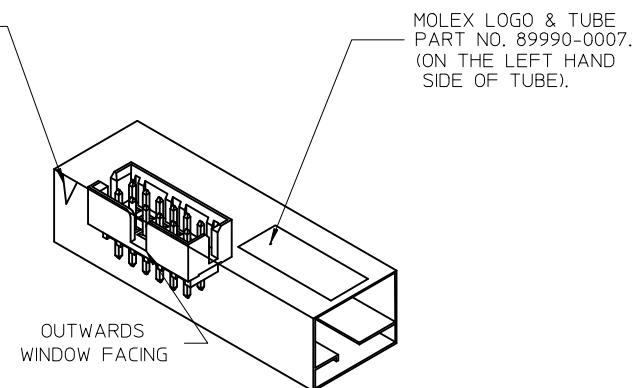
PLATING OPTION

- 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.



RECOMMENDED PCB PATTERN

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.
7. 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.

REVISED	EC NO: S2009-0559	2009/02/23	2009/02/23	2009/02/23	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
									MM ONLY		NTS	METRIC				
									DRAWN BY DATE		TITLE					
									CHECKED BY DATE		MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF					
									APPROVED BY DATE							
A14	DRWN:SKANG	2009/02/23	2009/02/23	2009/02/23	APPR:MLONG	▽=0 ▽=0	mm INCH		ATSEE 2003/10/03		MOLEX MOLEX INCORPORATED					
							3 PLACES ± --- ± ---		KCLING 2003/11/07							
							2 PLACES ± 0.2 ± ---		APPROVED BY DATE		DOCUMENT NO. SD-87831-011 SHEET NO. 1 OF 2					
							1 PLACE ± --- ± ---		SKTOH 2003/11/07							
							ANGULAR ± 3 °		MATERIAL NO.		SEE TABLE					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												

10			9	8		7	6	5	4	3	2	1									
F	P/N IN TUBE	CKT SIZE	VOID POSITION	DIMENSION					}	NO CENTRE POLARIZATION SLOT	F										
	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	-----													
E	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													
D	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													
	87831-42**	42	-----	40.00	42.85	44.65	43.00	36.00													
D	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	-----													
C	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													
	87831-5620	28	13	26.00	28.85	30.65	29.00	22.00													
C	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													
	87831-5920	20	13	18.00	20.85	22.65	21.00	14.00													
	87831-6020	24	20	22.00	24.85	26.65	25.00	18.00													
B												B									
A												A									
fb_frame_A3_P_AM_T Rev. E 2006/04/15													9	8	7	6	5	4	3	2	1

REVISED EC NO: S2009-0559 DRWN:SKANG 2009/02/23 CHKD:ATSEE 2009/02/23 APPR:MLONG 2009/02/23	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		 		mm	INCH	DRAWN BY	DATE	TITLE MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF		
			4 PLACES	± ---	± ---	ATSEE	2003/10/03			
			3 PLACES	± ---	± ---	CHECKED BY	DATE			
			2 PLACES	± 0.2	± ---	KCL ING	2003/11/07			
			1 PLACE	± ---	± ---	APPROVED BY	DATE			
		ANGULAR ± 3 °			SKTOH	2003/11/07	MOLEX MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO.			DOCUMENT NO.	SHEET NO.	
		A14			SEE TABLE		SD-87831-011		2 OF 2	
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						mm	INCH	DRAWN BY ATSEE		DATE 2003/10/03		TITLE MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFF MOLEX INCORPORATED			
					4 PLACES	± ---	± ---	CHECKED BY		DATE					
					3 PLACES	± ---	± ---	KCL ING		2003/11/07					
					2 PLACES	± 0.2	± ---	APPROVED BY		DATE					
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