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Part Number: [0878336220](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 18 Circuits, 0.38µm (15µ") Gold (Au) Plating, without PCB Locator, with Locking Windows, Center Polarization Slot, Tube

Documents:
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Product Specification PS-87831-027 \(PDF\)](#)

Agency Certification

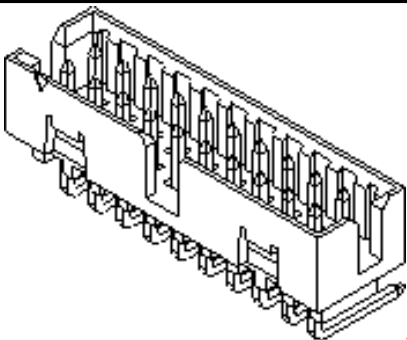
CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	87833
Application	Wire-to-Board
Comments	Contact Molex for application in automotive industry
Overview	milligrid
Product Name	Milli-Grid™

Physical

Breakaway	No
Circuits (Loaded)	18
Circuits (maximum)	18
Color - Resin	Black
First Mate / Last Break	No
Flammability	94V-0
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	Yes
Lock to Mating Part	Yes
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Nylon
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.125 In
PC Tail Length (mm)	3.18 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)	15
Plating min: Mating (µm)	0.38
Plating min: Termination (µin)	75
Plating min: Termination (µm)	1.88
Polarized to Mating Part	Side Slots (2)



Series
image - Reference only

EU RoHS ELV and RoHS Compliant REACH SVHC Contains SVHC: No Halogen-Free Status Not Reviewed	China RoHS
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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
[87833Series](#)

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.

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)	11
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

Material Info

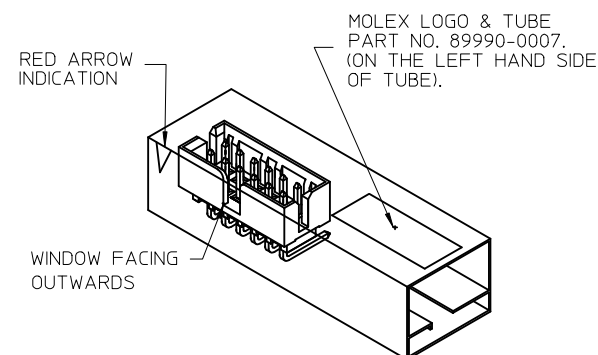
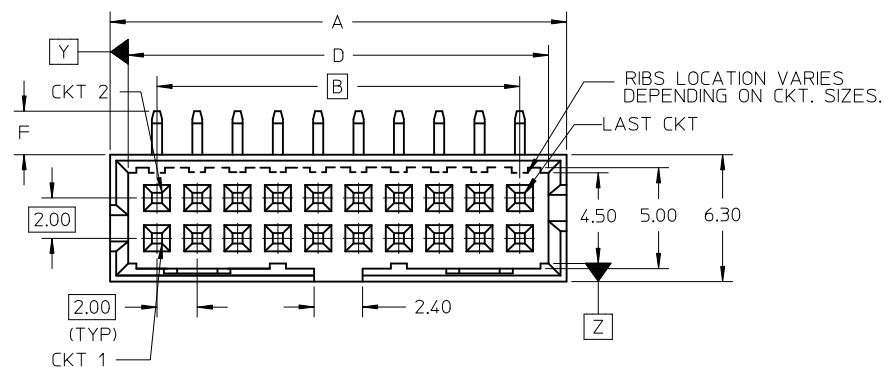
Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87833-010

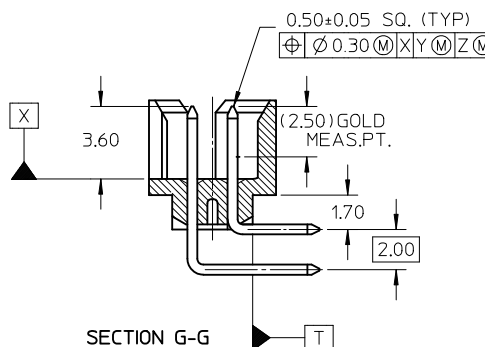
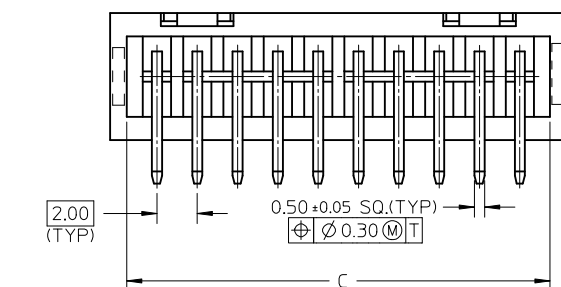
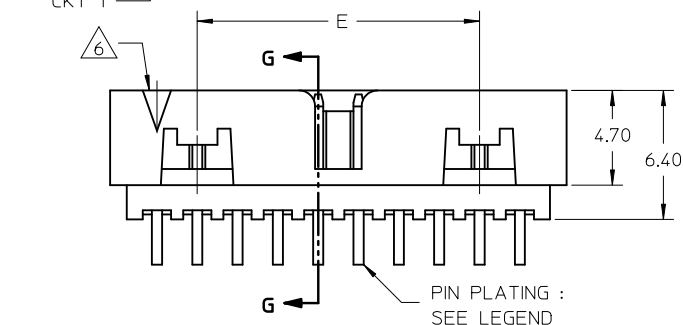
This document was generated on 06/01/2010

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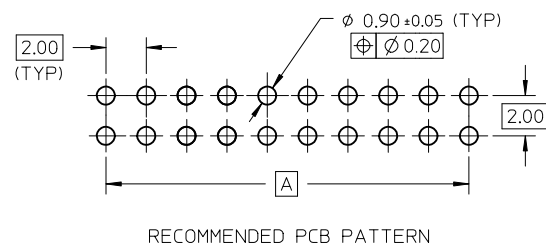


REF: ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



NOTES:

1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL :
HOUSING : 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 AND 6.
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
7. THIS HEADER MATES WITH MOLEX:
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
8. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
9. PLATING SPECIFICATION REFERRED TO SHEET 2.



RECOMMENDED PCB PATTERN

ADD P/N 87833-6321 EC NO: S2010-0388 DRWN:SKANG CHKD:ATSEE APPR:MLONG	DESCRIPTION 2009/11/02 2009/12/03 2009/12/04	QUALITY SYMBOLS FA=0 FC=0 FP=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION					
			4 PLACES 3 PLACES 2 PLACES 1 PLACE	mm INCH	DRAWN BY ATSEE CHECKED BY KCL ING APPROVED BY MLONG	DATE 2003/10/23 2003/11/07 2009/12/03	TITLE MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A							
							ANGULAR ± 3 °				molex MOLEX INCORPORATED			
							DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87833-010	
				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						PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						9 PLATING OPTION	F		
									A	B	C	D	E	F				
E	PART NUMBER LEGEND : 87833 - * * * * *					PLS REFER TO PART 87833-***3* FOR CENTER LOCKING SLOT OPTION.	87833-04**	4	-	6.65	2.00	5.00	4.85	—	2.16	19,20 OR 21	E	
							87833-06**	6	-	8.65	4.00	7.00	6.85	—				
D							87833-08**	8	-	10.65	6.00	9.00	8.85	—		18,19,20 OR 21	D	
							87833-10**	10	-	12.65	8.00	11.00	10.85	—				
C							87833-12**	12	-	14.65	10.00	13.00	12.85	—		19,20 OR 21	C	
							87833-14**	14	-	16.65	12.00	15.00	14.85	8.00				
B							87833-16**	16	-	18.65	14.00	17.00	16.85	10.00		20	B	
							87833-18**	18	-	20.65	16.00	19.00	18.85	12.00				
A							87833-20**	20	-	22.65	18.00	21.00	20.85	14.00		20	A	
							87833-22**	22	-	24.65	20.00	23.00	22.85	16.00				
9 PLATING OPTIONS: 18 - 0.38um/15uin PdNi WITH GOLD FLASH IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 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. 00/ 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.							87833-24**	24	-	26.65	22.00	25.00	24.85	18.00	3.18	21		
							87833-26**	26	-	28.65	24.00	27.00	26.85	20.00				
							87833-28**	28	-	30.65	26.00	29.00	28.85	22.00		20 OR 21		
							87833-30**	30	-	32.65	28.00	31.00	30.85	24.00				
							87833-32**	32	-	34.65	30.00	33.00	32.85	26.00		20		
							87833-34**	34	-	36.65	32.00	35.00	34.85	28.00				
							87833-36**	36	-	38.65	34.00	37.00	36.85	30.00		20		
							87833-38**	38	-	40.65	36.00	39.00	38.85	32.00				
							87833-40**	40	-	42.65	38.00	41.00	40.85	34.00		20		
							87833-42**	42	-	44.65	40.00	43.00	42.85	36.00				
							87833-44**	44	-	46.65	42.00	45.00	44.85	38.00	20			
							87833-46**	46	-	48.65	44.00	47.00	46.85	40.00				
							87833-48**	48	-	50.65	46.00	49.00	48.85	42.00	20			
							87833-50**	50	-	52.65	48.00	51.00	50.85	44.00				
							87833-7000	34	21	36.65	32.00	35.00	34.85	28.00	20			
							87833-5121	26	14	28.65	24.00	27.00	26.85	20.00				
							87833-5120	10	7	12.65	8.00	11.00	10.85	—	20			
							87833-5520	40	21	42.65	38.00	41.00	40.85	34.00				
							87833-5620	20	14	22.65	18.00	21.00	20.85	14.00	20			
							87833-5720	24	13	26.65	22.00	25.00	24.85	18.00				
							87833-5820	14	1	16.65	12.00	15.00	14.85	8.00	20			
							87833-6321	8	-	10.65	6.00	9.00	8.85	—				
							87833-53**	14	-	16.65	12.00	15.00	14.85	8.00	20			
							87833-5420	34	-	36.65	32.00	35.00	34.85	28.00				
							87833-5920	4	-	6.65	2.00	5.00	4.85	—	20			
							87833-6020	12	-	14.65	10.00	13.00	12.85	—				
							87833-6120	16	-	18.65	14.00	17.00	16.85	10.00	20			
							87833-6220	18	-	20.65	16.00	19.00	18.85	12.00				