

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878332421](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 24 Circuits, 0.76µm (30µ") Gold (Au) Plating, without PCB Locator, with Locking Windows, Center Polarization Slot, Tube

Documents:

[3D Model](#) [Product Specification PS-87831-027 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

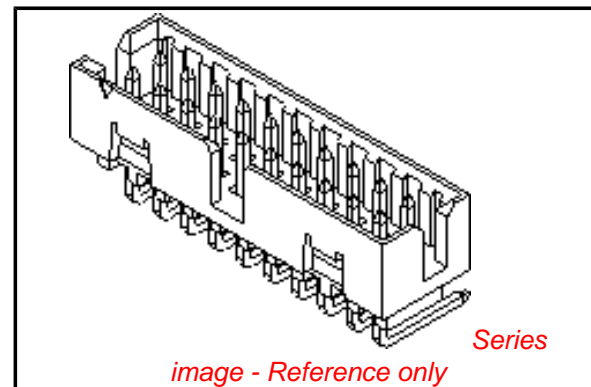
CSA LR19980
 UL E29179

General

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

Physical

Breakaway No
 Circuits (Loaded) 24
 Circuits (maximum) 24
 Color - Resin Black
 Durability (mating cycles max) 100
 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 Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 2
 Orientation Right Angle
 PC Tail Length (in) 0.085 In
 PC Tail Length (mm) 2.16 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) 75
 Plating min: Termination (µm) 1.88



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

[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. L

Polarized to Mating Part	Side Slots (2)
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

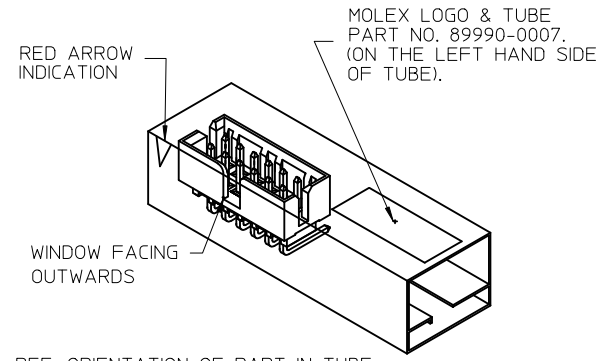
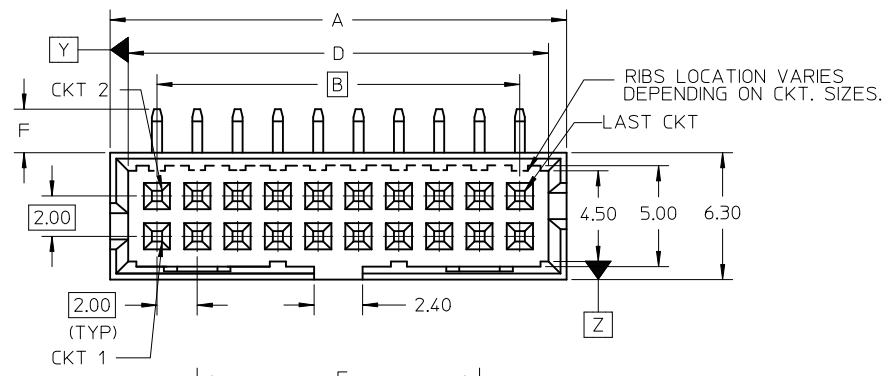
Material Info

Reference - Drawing Numbers

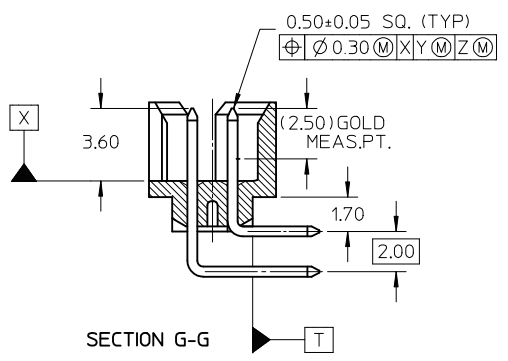
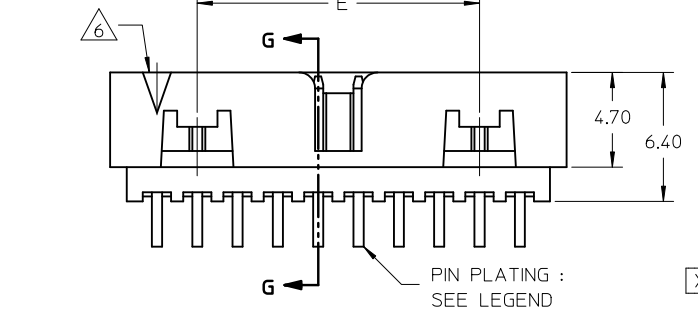
Product Specification	PS-87831-027
Sales Drawing	SD-87833-010

This document was generated on 05/25/2010

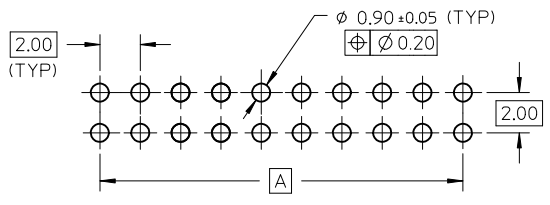
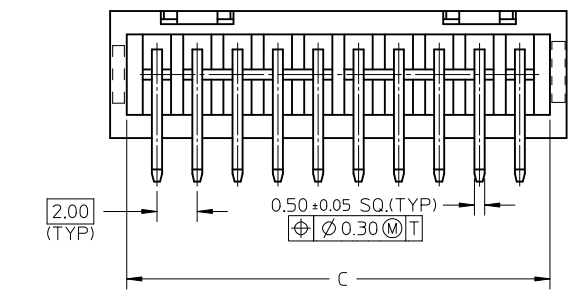
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REF: ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



- NOTES:
- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
 - MATERIAL :
HOUSING : NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
 - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
 - NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
 - NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
 - CKT 4 & 6 HAS NO IDENTIFICATION TAG.
 - THIS HEADER MATES WITH MOLEX:
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
 - PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
 - PLATING SPECIFICATION REFERRED TO SHEET 2.



ADD P/N 87833-64/6520 EC NO: S2010-0510 DRWN:SKANG 2009/12/17 CHKD:ATSEE 2010/01/04 APPR:MLONG 2010/01/05	QUALITY SYMBOLS F _A =0 F _C =0 F _P =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	NTS	METRIC		
			mm	INCH	DRAWN BY	DATE	TITLE	
		4 PLACES	± ---	± ---	ATSEE	2003/10/23	MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A	
			3 PLACES	± ---	± ---	CHECKED BY	DATE	
			2 PLACES	± 0.2	± ---	KCL ING	2003/11/07	
			1 PLACE	± ---	± ---	APPROVED BY	DATE	
			ANGULAR ± 3 °		MLONG	2010/01/05	MOLEX INCORPORATED	
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
			SEE TABLE		SD-87833-010		1 OF 2	
			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		
PART NUMBER LEGEND: 87833 - * * * * * 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.	PLS REFER TO PART 87833-***3* FOR CENTER LOCKING SLOT OPTION.	PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						9 PLATING OPTION
		A	B	C	D	E	F	2.16	19,20 OR 21		
		87833-04**	4	-	6.65	2.00	5.00			4.85	-----
		87833-06**	6	-	8.65	4.00	7.00			6.85	-----
		87833-08**	8	-	10.65	6.00	9.00			8.85	-----
		87833-10**	10	-	12.65	8.00	11.00			10.85	-----
		87833-12**	12	-	14.65	10.00	13.00			12.85	-----
		87833-14**	14	-	16.65	12.00	15.00			14.85	8.00
		87833-16**	16	-	18.65	14.00	17.00			16.85	10.00
		87833-18**	18	-	20.65	16.00	19.00			18.85	12.00
		87833-20**	20	-	22.65	18.00	21.00			20.85	14.00
		87833-22**	22	-	24.65	20.00	23.00			22.85	16.00
		87833-24**	24	-	26.65	22.00	25.00			24.85	18.00
		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
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				
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				
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				
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				
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				
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				
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	-----				
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				
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				
87833-63**	8	-	10.65	6.00	9.00	8.85	-----				
87833-53**	14	-	16.65	12.00	15.00	14.85	8.00				
87833-5420	34	-	36.65	32.00	35.00	34.85	28.00				
87833-5920	4	-	6.65	2.00	5.00	4.85	-----				
87833-6020	12	-	14.65	10.00	13.00	12.85	-----				
87833-6120	16	-	18.65	14.00	17.00	16.85	10.00				
87833-6220	18	-	20.65	16.00	19.00	18.85	12.00				
87833-6420	6	-	8.65	4.00	7.00	6.85	-				
87833-6520	20	-	22.65	18.00	21.00	20.85	14.00				
87833-63**	8	-	10.65	6.00	9.00	8.85	-----				
87833-53**	14	-	16.65	12.00	15.00	14.85	8.00				
87833-5420	34	-	36.65	32.00	35.00	34.85	28.00				
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87833-6020	12	-	14.65	10.00	13.00	12.85	-----				
87833-6120	16	-	18.65	14.00	17.00	16.85	10.00				
87833-6220	18	-	20.65	16.00	19.00	18.85	12.00				
87833-6420	6	-	8.65	4.00	7.00	6.85	-				
87833-6520	20	-	22.65	18.00	21.00	20.85	14.00				

PART NUMBER LEGEND:
87833 - * * * * *

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.
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PLS REFER TO PART 87833-***3* FOR CENTER LOCKING SLOT OPTION.

ADD P/N 87833-64/6520 EC NO: S2010-0510 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2009/12/17 2010/01/04 2010/01/05	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED) <table style="width:100%;"> <tr> <td style="width:50%;"></td> <td style="width:50%; text-align: center;">mm</td> <td style="width:50%;"></td> <td style="width:50%; text-align: center;">INCH</td> </tr> <tr> <td>4 PLACES</td> <td style="text-align: center;">± ---</td> <td>3 PLACES</td> <td style="text-align: center;">± ---</td> </tr> <tr> <td>2 PLACES</td> <td style="text-align: center;">± 0.2</td> <td>1 PLACE</td> <td style="text-align: center;">± ---</td> </tr> </table>			mm		INCH	4 PLACES	± ---	3 PLACES	± ---	2 PLACES	± 0.2	1 PLACE	± ---	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm		INCH																
4 PLACES	± ---	3 PLACES	± ---																	
2 PLACES	± 0.2	1 PLACE	± ---																	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			DRAWN BY ATSEE	DATE 2003/10/23	CHECKED BY KCLING	DATE 2003/11/07	APPROVED BY MLONG	DATE 2010/01/05												
B3			SEE TABLE		MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A MOLEX INCORPORATED															
			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
			MATERIAL NO. SD-87833-010		DOCUMENT NO. SD-87833-010		SHEET NO. 2 OF 2													