

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878331820](#)
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:

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

Agency Certification

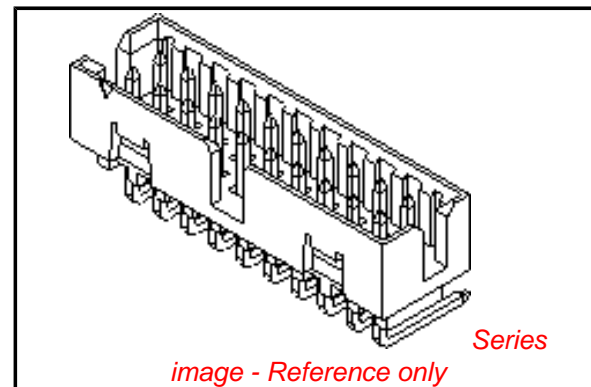
CSA LR19980
 UL E29179

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) 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) 0.085 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) 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)



EU RoHS

**ELV and RoHS
 Compliant**
**REACH SVHC
 Contains SVHC: No
 Halogen-Free
 Status**

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 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

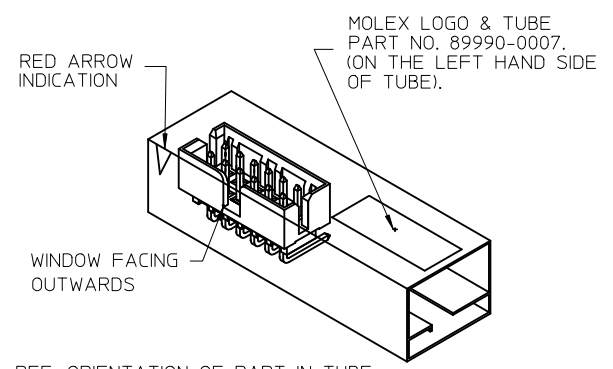
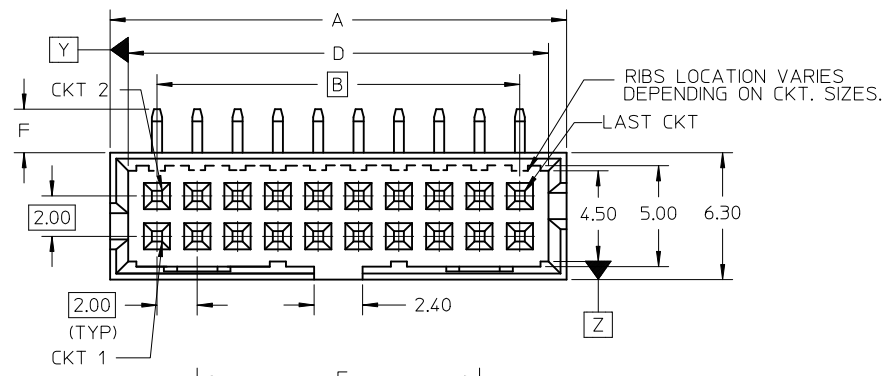
Material Info

Reference - Drawing Numbers

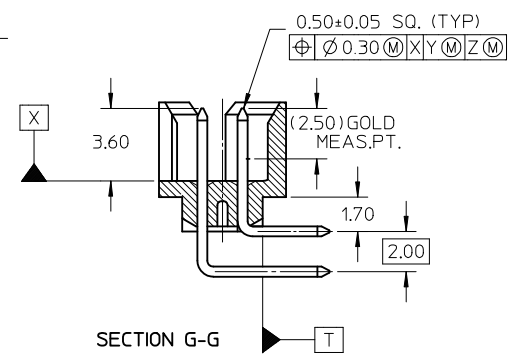
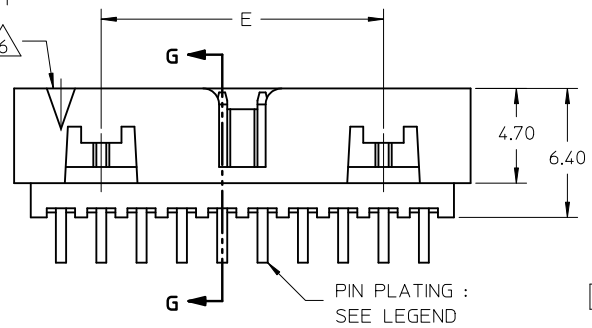
Product Specification	PS-87831-027
Sales Drawing	SD-87833-010

This document was generated on 05/25/2010

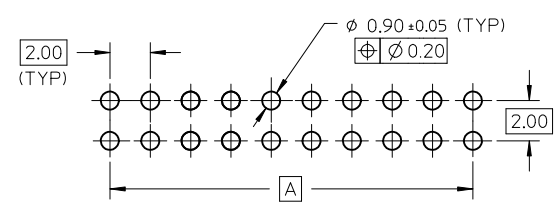
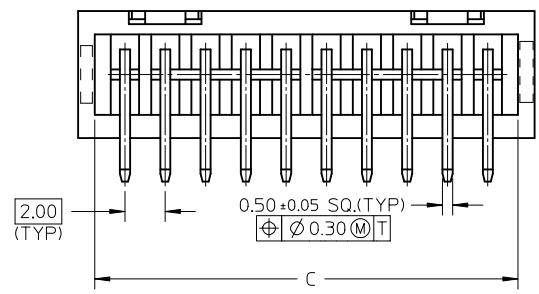
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REF: ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



- 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:
 - CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
 - 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 $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.2 ± ---	1 PLACE ± --- ± ---	DRAWN BY ATSEE	DATE 2003/10/23	TITLE MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A			
		ANGULAR ± 3 °				APPROVED BY MLONG	DATE 2010/01/05	MOLEX MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87833-010				SHEET NO. 1 OF 2

PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						F	PLATING OPTION
			A	B	C	D	E	F		
87833-04**	4	-	6.65	2.00	5.00	4.85	—	2.16	19,20 OR 21	
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			
								3.18	20 OR 21	
									20	

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

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.
 - 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.

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	$F_A=0$ $F_C=0$ $F_P=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	☉ □ THIRD ANGLE PROJECTION
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY DATE	TITLE	MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A	
	REV		ATSEE 2003/10/23 CHECKED BY DATE KCLING 2003/11/07 APPROVED BY DATE MLONG 2010/01/05 MATERIAL NO. SEE TABLE DOCUMENT NO. SD-87833-010 SHEET NO. 2 OF 2	MOLEX INCORPORATED		