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Part Number: [0878311031](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Shrouded, Lead-free, 10 Circuits, 0.38μm (15μ") Gold (Au) Plating, Center Polarization Slot, without Locking Window, without PCB Locator, with Open End Wall, Tube

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

Agency Certification

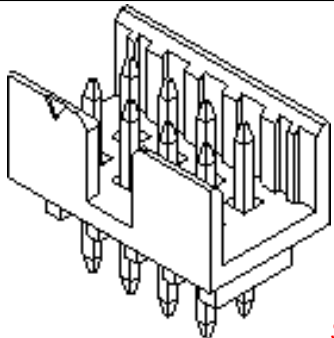
CSA LR19980
UL E29179

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) 10
Circuits (maximum) 10
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 None
Material - Metal Brass
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) 15
Plating min: Mating (μm) 0.38
Plating min: Termination (μin) 76
Plating min: Termination (μm) 1.88
Polarized to Mating Part Center Slot



*Series
image - Reference only*

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
[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	Open Ends
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

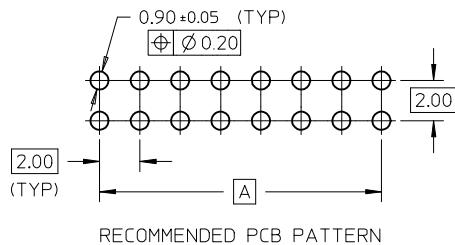
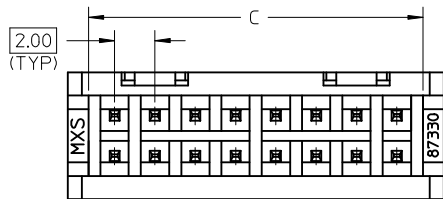
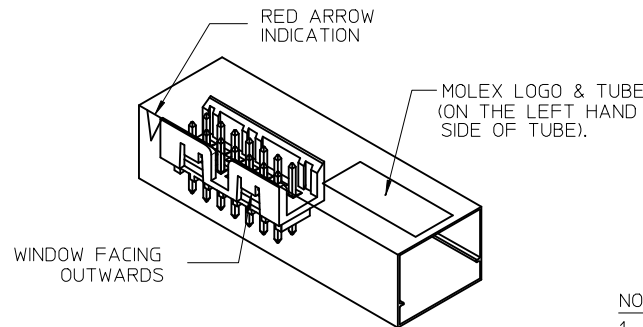
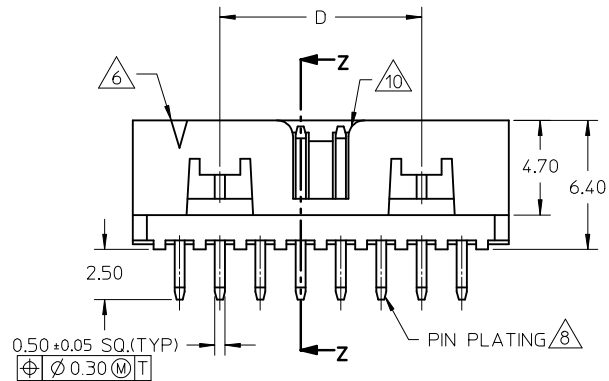
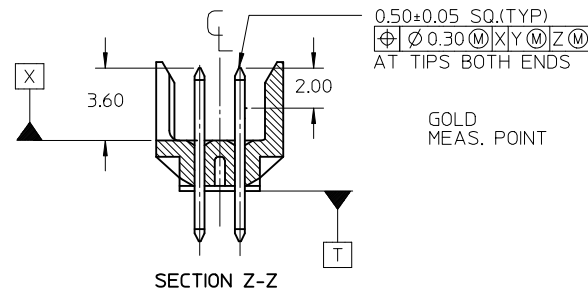
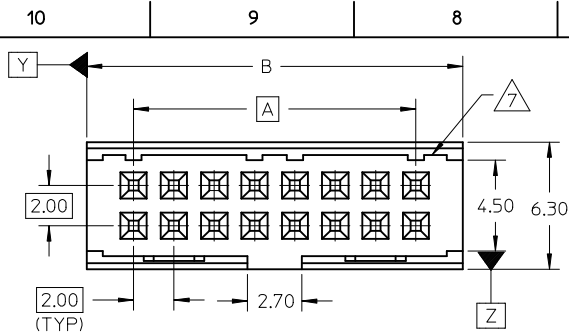
Material Info

Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87831-014

This document was generated on 05/26/2010

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P/N IN TUBE	CKT SIZE	DIMENSION			
		A	B	C	D
87831-0431	04	2.00	6.65	4.60	-
87831-0631	06	4.00	8.65	6.60	-
87831-0831	08	6.00	10.65	8.60	-
87831-1031	10	8.00	12.65	10.60	-
87831-1231	12	10.00	14.65	12.60	-
87831-1431	14	12.00	16.65	14.60	8.00
87831-1631	16	14.00	18.65	16.60	10.00
87831-1831	18	16.00	20.65	18.60	12.00
87831-2031	20	18.00	22.65	20.60	14.00
87831-2231	22	20.00	24.65	22.60	16.00
87831-2431	24	22.00	26.65	24.60	18.00
87831-2631	26	24.00	28.65	26.60	20.00
87831-2831	28	26.00	30.65	28.60	22.00
87831-3031	30	28.00	32.65	30.60	24.00
87831-3231	32	30.00	34.65	32.60	26.00
87831-3431	34	32.00	36.65	34.60	28.00
87831-3631	36	34.00	38.65	36.60	30.00
87831-3831	38	36.00	40.65	38.60	32.00
87831-4031	40	38.00	42.65	40.60	34.00
87831-4231	42	40.00	44.65	42.60	36.00
87831-4431	44	42.00	46.65	44.60	38.00
87831-4631	46	44.00	48.65	46.60	40.00
87831-4831	48	46.00	50.65	48.60	42.00
87831-5031	50	48.00	52.65	50.60	44.00

NOTES:

- FOR ILLUSTRATION PURPOSES, 16 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL : HOUSING : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
- PIN PUSHOUT FORCE : 0.91 KG MIN. IN EITHER DIRECTION.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
- CKT 4 & 6 HAS NO IDENTIFICATION TAG.
- RIBS LOCATION VARIES DEPENDING ON CKT SIZES.
- PLATING : 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- THIS HEADER MATES WITH MOLEX :
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 & 6.
- PARTS TO BE PACKED IN TUBE WITH MOISUTRE BARRIER BAG.

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

REMOVE TUBE P/N		EC NO: S2009-0749		2009/04/30		2009/04/30		2009/05/04		QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS		DESIGN UNITS METRIC		 THIRD ANGLE PROJECTION	
A5		DRWN:YMC HONG CHKD:ATSEE APPR:MLONG		DESCRIPTION		 =0		mm		INCH		DRAWN BY		DATE		TITLE		MGRID, SHROUDED HEADER VERTICAL W/OPEN END WALL			
						4 PLACES		± ---		± ---		ATSEE		2003/10/06							
						3 PLACES		± ---		± ---		CHECKED BY		DATE		MOLEX INCORPORATED					
						2 PLACES		± 0.2		± ---		KCLING		2003/11/07							
						1 PLACE		± ---		± ---		APPROVED BY		DATE							
						ANGULAR ± 3 °		SKTOH		2003/11/07		MATERIAL NO.		DOCUMENT NO.		SHEET NO.					
						DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		SEE TABLE		SD-87831-014		1 OF 1							
										THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											