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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

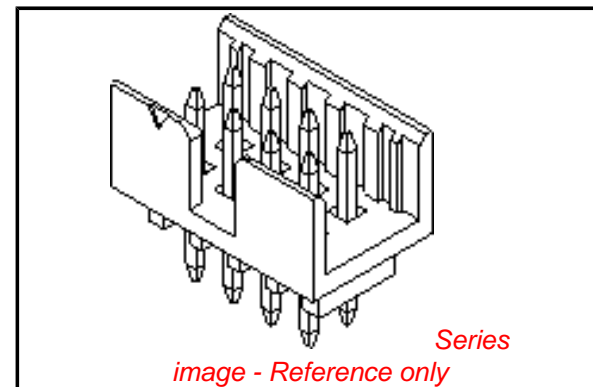
CSA LR19980
 UL E29179

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



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

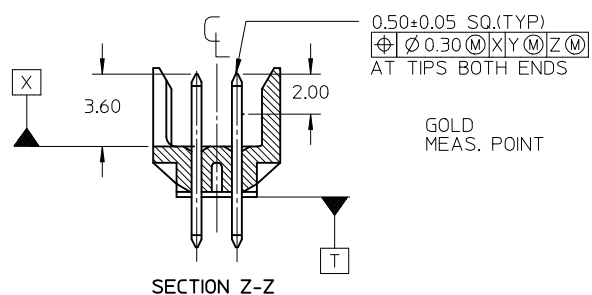
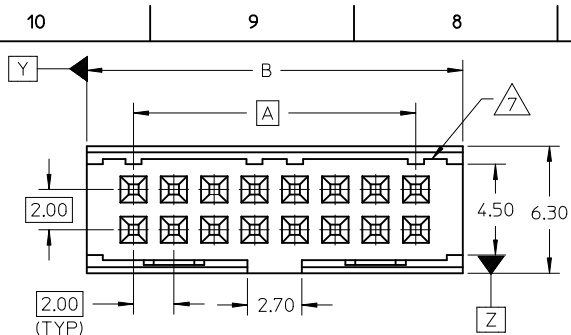
Material Info

Reference - Drawing Numbers

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

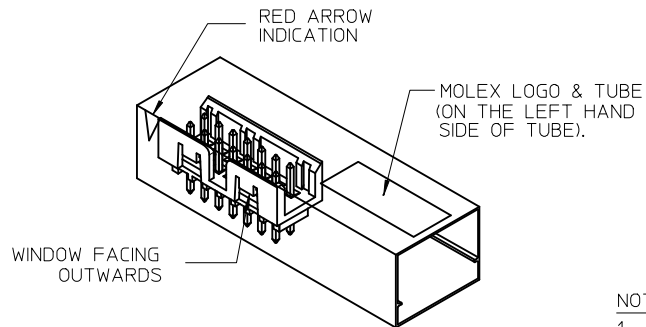
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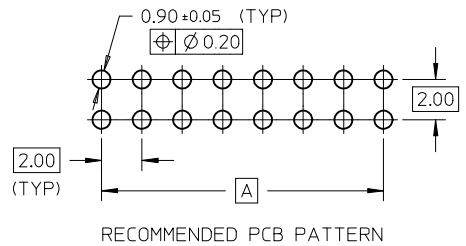
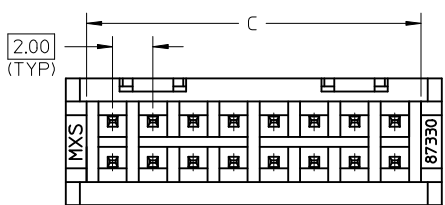
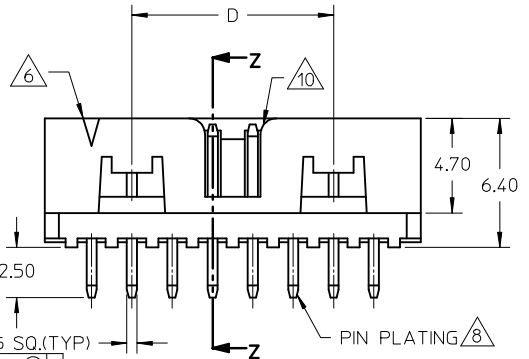


P/N IN TUBE	CKT SIZE	DIMENSION			
		A	B	C	D
87831-0431	04	2.00	6.65	4.60	-
87831-0631	06	4.00	8.65	6.60	-
87831-0831	08	6.00	10.65	8.60	-
87831-1031	10	8.00	12.65	10.60	-
87831-1231	12	10.00	14.65	12.60	-
87831-1431	14	12.00	16.65	14.60	8.00
87831-1631	16	14.00	18.65	16.60	10.00
87831-1831	18	16.00	20.65	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.
 - △6 CKT 4 & 6 HAS NO IDENTIFICATION TAG.
 - △7 RIBS LOCATION VARIES DEPENDING ON CKT SIZES.
 - △8 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 :
 - CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
 - 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 DRWN: YMCHONG CHKD: ATSEE APPR: MLONG	QUALITY SYMBOLS ▽=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY ATSEE	DATE 2003/10/06	TITLE MGRID, SHROUDED HEADER VERTICAL W/OPEN END WALL		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY KCLING	DATE 2003/11/07	MOLEX INCORPORATED		
		2 PLACES ± 0.2 ± ---	1 PLACE ± --- ± ---	APPROVED BY SKTOH	DATE 2003/11/07	DOCUMENT NO. SD-87831-014	SHEET NO. 1 OF 1	
A5	REV	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			