

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0878311035](#)  
**Status:** **Active**  
**Overview:** milligrid  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 10 Circuits, 0.76µm (15µ") Gold (Au) Plating, PCB Locator, Center Polarization Slot, without Locking Window, Tube

**Documents:**

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

**Agency Certification**

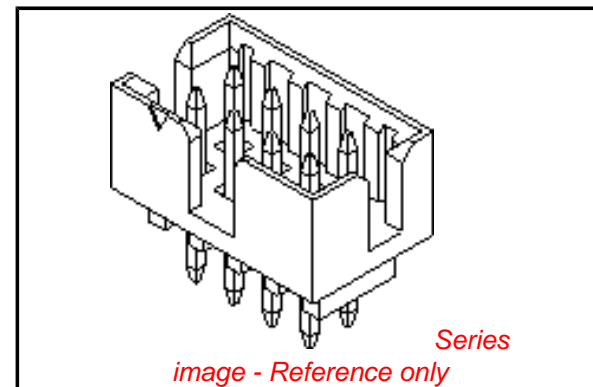
CSA LR19980  
 UL E29179

**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 Yes  
 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) 76  
 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](mailto: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	Yes
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

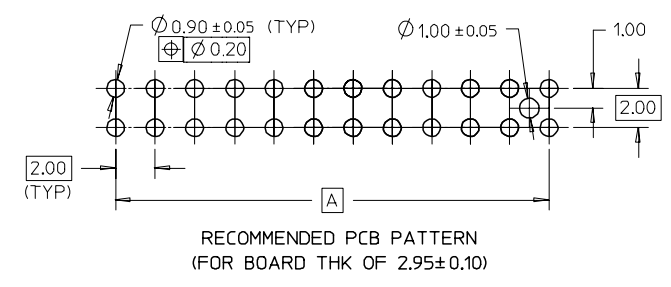
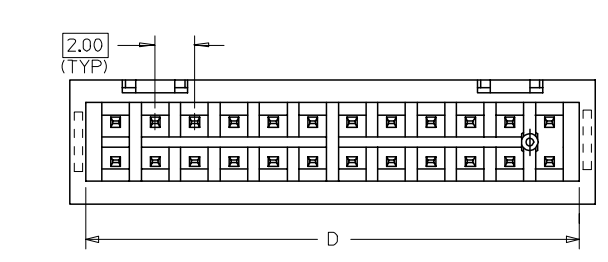
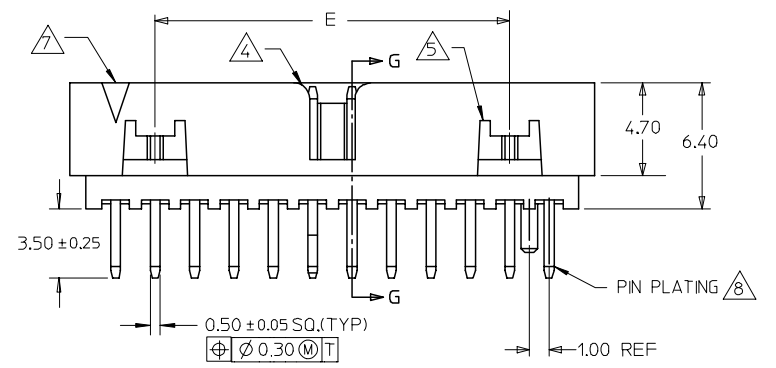
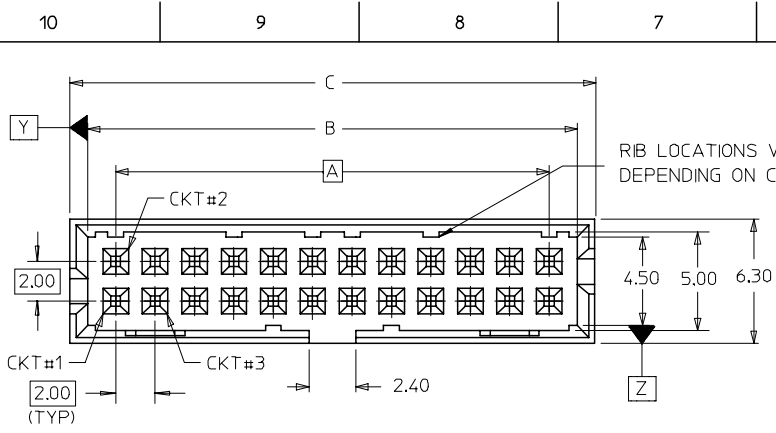
### **Material Info**

### **Reference - Drawing Numbers**

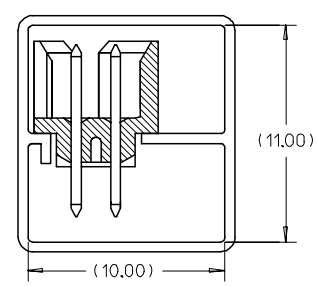
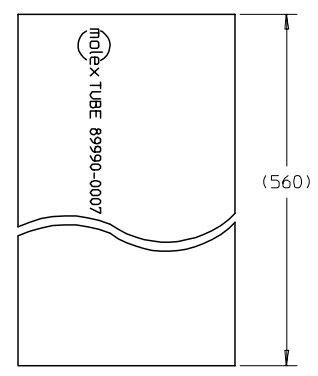
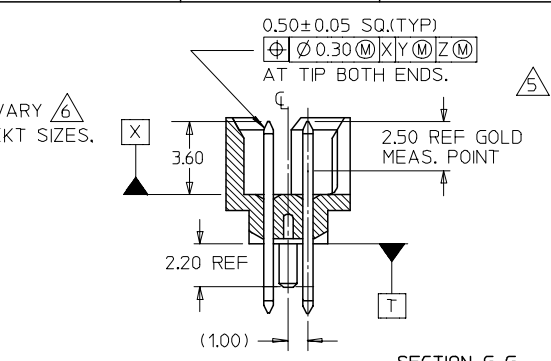
Product Specification	PS-87831-027
Sales Drawing	SD-87831-016

This document was generated on 05/26/2010

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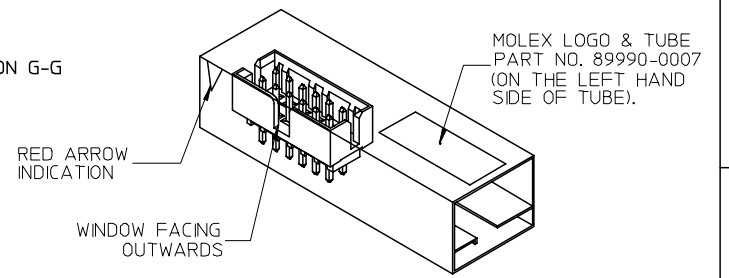
RECOMMENDED PCB PATTERN  
(FOR BOARD THK OF 2.95±0.10)



REF : ORIENTATION OF PART IN TUBE

P/N IN TUBE	CKT SIZE	DIMENSION				
		A	B	C	D	E
87831-1035	10	8.00	10.85	12.65	11.00	---
87831-1435	14	12.00	14.85	16.65	15.00	8.00
87831-1635	16	14.00	16.85	18.65	17.00	10.00
87831-2035	20	18.00	20.85	22.65	21.00	14.00
87831-2435	24	22.00	24.85	26.65	25.00	18.00
87831-3035	30	28.00	30.85	32.65	31.00	24.00
87831-3435	34	32.00	34.85	36.65	35.00	28.00
87831-4435	44	42.00	44.85	46.65	45.00	38.00
87831-5035	50	48.00	50.85	52.65	51.00	44.00

SECTION G-G



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

- NOTES:
- FOR ILLUSTRATION PURPOSES, 24 CKT SIZE WAFER IS SHOWN.
  - MATERIAL :  
HOUSING : 30% G.F., 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 FOR CKT SIZE 10.
  - FOR RIB LOCATION SEE DWG. NO. EC-87330-\*\*04.
  - CKT 6 HAS NO IDENTIFICATION TAG.
  - PLATING OPTION :  
0.76um/30uin 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.
  - PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.

ADD MOIST BAG NOTE  
EC NO: S2007-0892  
DRWN:GIVENARLY 2007/05/04  
CHKD:SKANG 2007/05/04  
APPR:MLONG 2007/05/07

QUALITY SYMBOLS  
▽=0  
∇=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES ± ---	± ---
3 PLACES ± ---	± ---
2 PLACES ± 0.2	± ---
1 PLACE ± ---	± ---
ANGULAR ± 3 °	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
ATSEE	2003/10/06
CHECKED BY	DATE
KCLING	2003/11/07
APPROVED BY	DATE
SKTOH	2003/11/07
MATERIAL NO.	
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
NTS	METRIC		
MGRID, SHROUDED HEADER VERTICAL, W/PEG			
MOLEX INCORPORATED		DOCUMENT NO.	SHEET NO.
SD-87831-016			1 OF 1
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