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Part Number: [0878312035](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 20 Circuits, 0.76µm (15µ") Gold (Au) Plating, PCB Locator, Center Polarization Slot, with Locking Windows, Tube

Documents:

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

Agency Certification

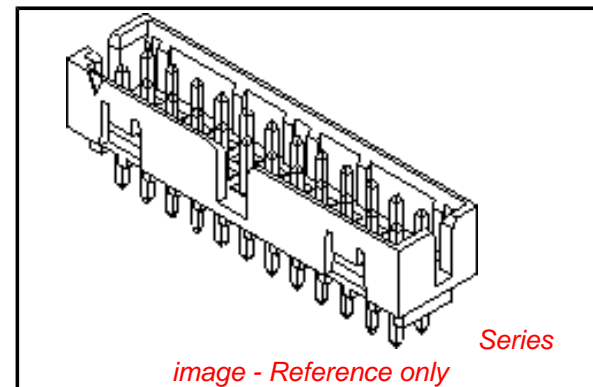
CSA LR19980
 UL E29179

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) 20
 Circuits (maximum) 20
 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 Yes
 Material - Metal Brass, Phosphor Bronze
 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
 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

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

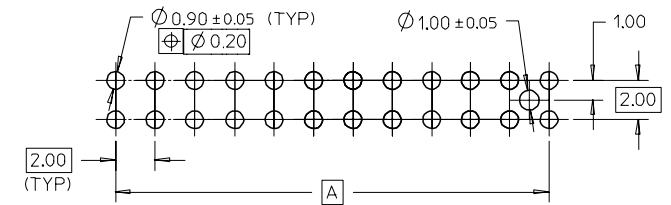
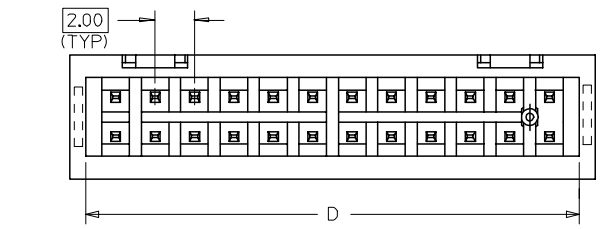
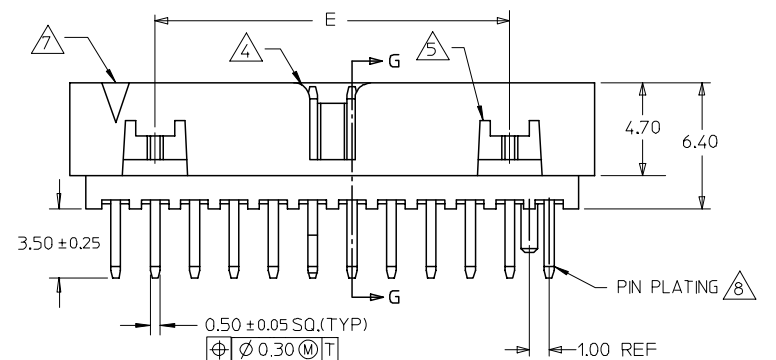
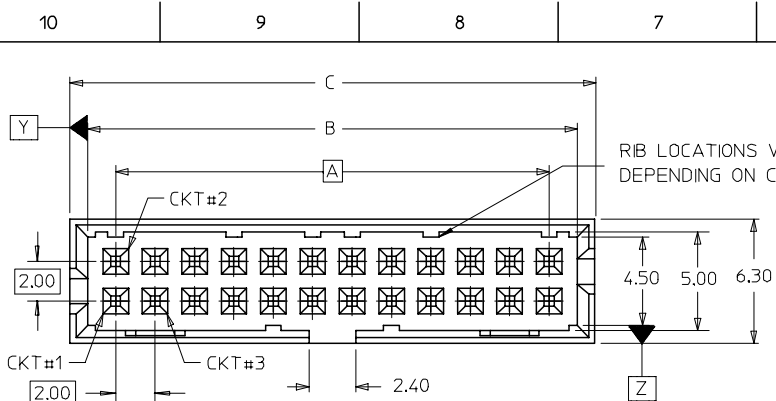
Material Info

Reference - Drawing Numbers

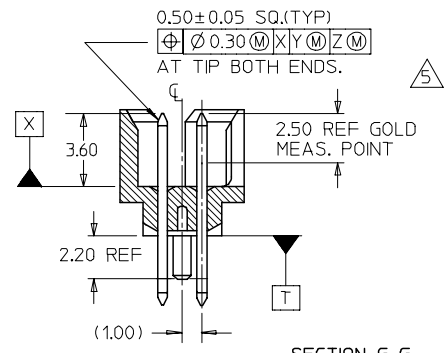
Product Specification	PS-87831-027
Sales Drawing	SD-87831-016

This document was generated on 05/26/2010

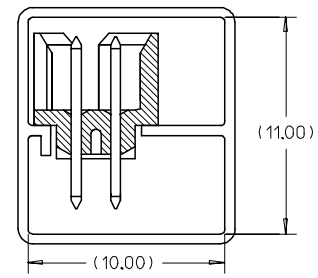
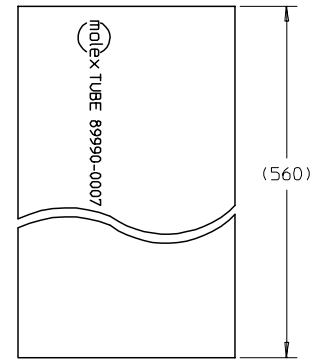
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RECOMMENDED PCB PATTERN
(FOR BOARD THK OF 2.95±0.10)

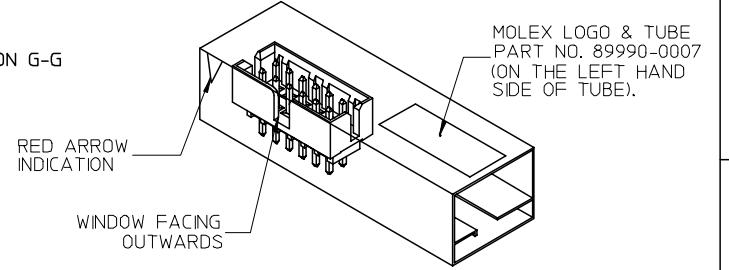


SECTION G-G



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



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)	DIMENSION STYLE	
	MM	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.2	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		

DRAWN BY		DATE	
ATSEE		2003/10/06	
CHECKED BY		DATE	
KCLING		2003/11/07	
APPROVED BY		DATE	
SKTOH		2003/11/07	

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