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Part Number: [0878314010](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, 40 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Center Polarization Slot and Locking Windows, 3.5mm (.138") Tail Length, Tube, Lead-free

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) 40
Circuits (maximum) 40
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 Phosphor Bronze
Material - Plating Mating Gold
Material - Plating Termination Tin
Material - Resin Nylon
Number of Rows 2
Orientation Vertical
PC Tail Length (in) 0.138 In
PC Tail Length (mm) 3.50 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 Yes

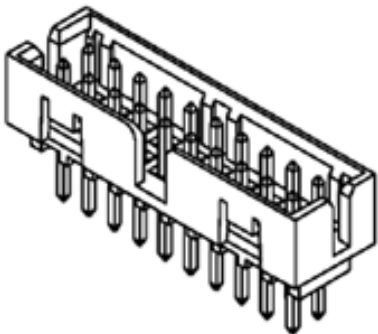


image - Reference only

Series

EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
Halogen-Free
Status
Not Halogen-Free

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, [79109](#) Board

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	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

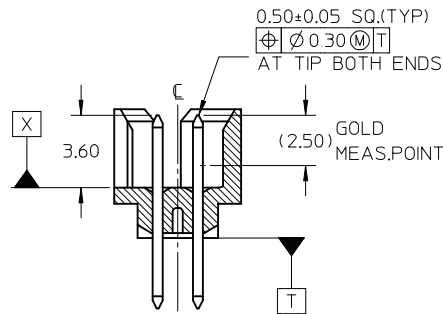
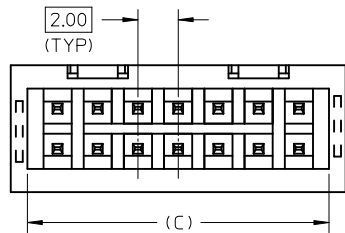
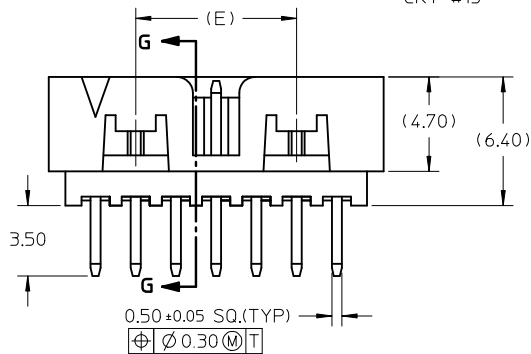
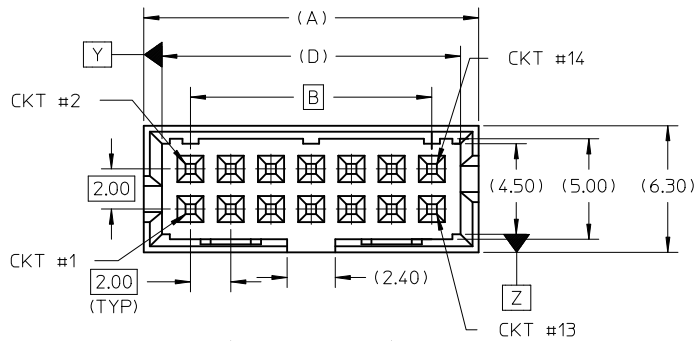
Material Info

Reference - Drawing Numbers

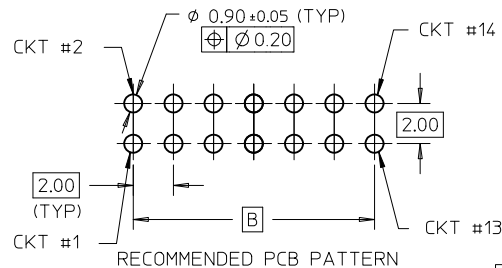
Product Specification	PS-87831-027
Sales Drawing	SD-87831-026

This document was generated on 05/26/2010

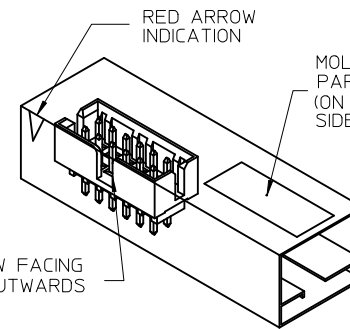
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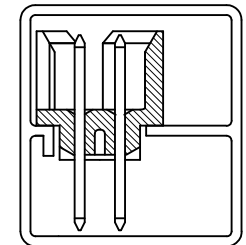
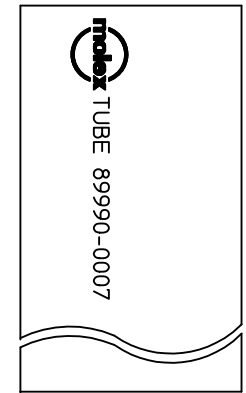
SECTION G-G



RECOMMENDED PCB PATTERN



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



ADD P/N: 87831-2011 EC NO: S2010-0715 DRWN:SKANG CHKD:ATSEE APPR:MLONG REV A9	DESCRIPTION	QUALITY SYMBOLS ▽_F=0 ▽_G=0 ▽_H=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
				mm	INCH	DRAWN BY ATSEE	DATE 2004/01/07	TITLE MGRID, SHROUDED HEADER VERTICAL WITH 3.50MM TAIL LENGTH					
			4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2004/01/14						
			3 PLACES	± ---	± ---	APPROVED BY MLONG		DATE 2010/03/12	MOLEX INCORPORATED				
			2 PLACES	± 0.2	± ---								
			1 PLACE	± ---	± ---	MOLEX							
			ANGULAR ± 3 °										
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87831-026			SHEET NO. 1 OF 2					
			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

F	NOTES: 1. MATERIAL : HOUSING : NYLON 46 GLASS FILLED, UL94V-0, COLOR BLACK. PIN : 0.50MM SQ. PHOSPHOR BRONZE. 2. PLATING OPTIONS : 1 - 0.38um/15uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 2 - GOLD FLASH IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 3 - 0.76um/30uin MIN. GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 3. PRODUCT SPECIFICATION PS-87831-027 APPLIES. 4. THIS HEADER MATES WITH MOLEX : a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES. b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES. 5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE. 6. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.	ASSY P/N IN TUBE		CKT SIZE	VOID PIN LOCATION	DIMENSION					PLATING OPTIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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