

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878314033](#)
Status: **Active**
Overview: [milligrd](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Shrouded, Lead-free, 40 Circuits, 0.38µm (15µ") Gold (Au) Plating, Center Polarization Slot, with Locking Windows, without PCB Locator, Void Position Circuit 21, 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 [milligrd](#)
 Product Name Milli-Grid™

Physical

Breakaway No
 Circuits (Loaded) 39
 Circuits (maximum) 40
 Circuits Detail Pin 21 Void
 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
 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



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 Mating Part	Side Slots (2)
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)	10
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

Material Info

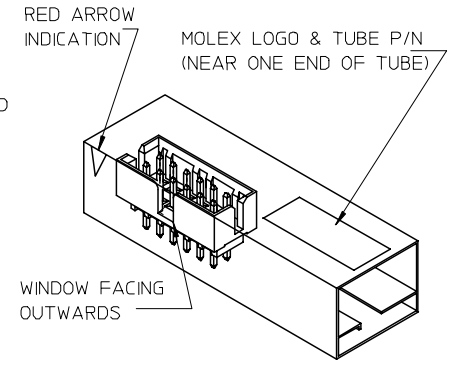
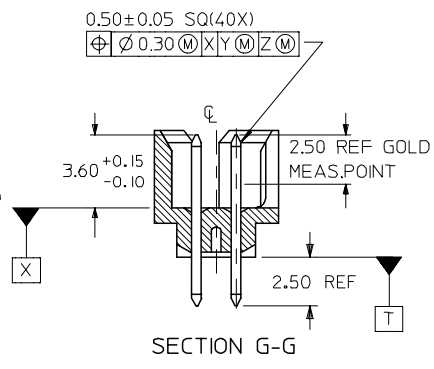
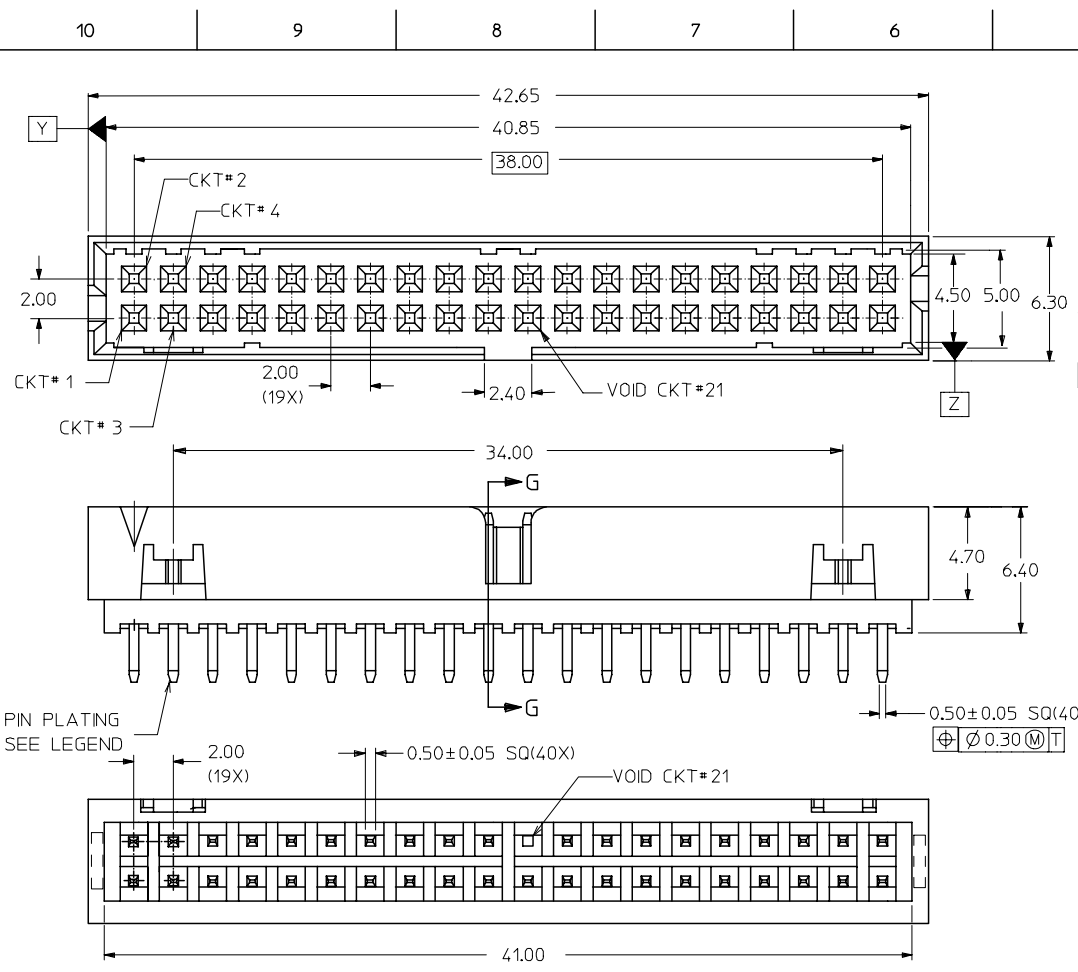
Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87831-043

This document was generated on 05/26/2010

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PART NO.	CKT SIZE	VOID CKT
87831-40**	40	21



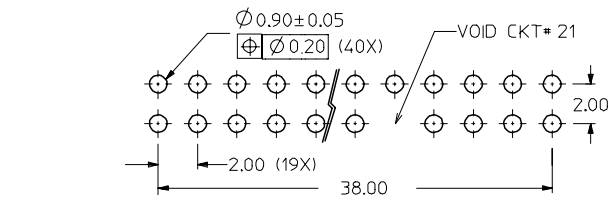
ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)

PART NUMBER LEGEND:

- 87831-40**
- CKT SIZE
 - PLATING OPTIONS
 - 33 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
 - 34 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

NOTES:

- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- MATERIAL :
HOUSING : NYLON 46, 30% G.F., UL94V-0 COLOR BLACK.
PIN : PHOSPHOR BRONZE, SQ. 0.50MM
- PIN PUSHOUT FORCE : 0.91KG MIN. IN EITHER DIRECTION.
- 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.



RECOMMENDED PCB PATTERN

ADD MOIST BAG NOTE	DESCRIPTION
EC NO: S2007-0892	2007/05/04
DRWN:GEMENARLY	2007/05/04
CHKD:SKANG	2007/05/04
APPR:MLONG	2007/05/07
A2	REV

QUALITY SYMBOLS	▽=0
	▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES ± ---	± ---
3 PLACES ± ---	± ---
2 PLACES ± 0.20	± ---
1 PLACE ± ---	± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
ATSEE	2004/08/26
CHECKED BY	DATE
SHONG	2004/11/22
APPROVED BY	DATE
SKTOH	2004/11/23
MATERIAL NO.	
SEE TABLE	
SIZE	A3

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
MGRID, SHROUDED HEADER VERTICAL W/SLOT & STANDOFFS		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87831-043	1 OF 1	
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