

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878321210](#)
Status: **Active**
Overview: milligrd
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 12 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Locking Window, without Cap, PCB Locator, 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 [87832](#)
 Application Wire-to-Board
 Comments Contact Molex for application in automotive industry
 Overview [milligrd](#)
 Product Name Milli-Grid™

Physical

Breakaway No
 Circuits (Loaded) 12
 Circuits (maximum) 12
 Color - Resin Black
 First Mate / Last Break No
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part No
 Keying to Mating Part Yes
 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
 PCB Locator Yes
 PCB Retention None
 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) 75
 Plating min: Termination (µm) 1.88
 Polarized to Mating Part Side Slots (2)
 Polarized to PCB No
 Shrouded Fully
 Stackable No
 Temperature Range - Operating -55°C to +105°C

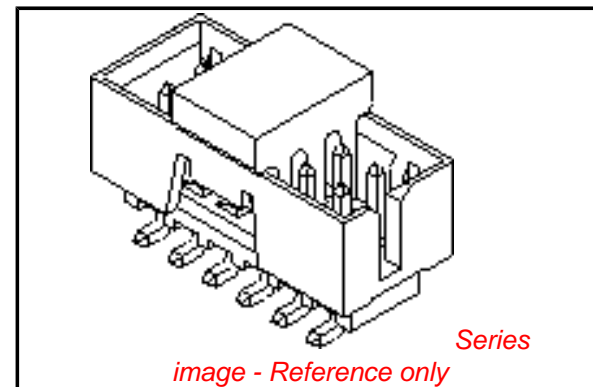


image - Reference only

EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Not Halogen-Free

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

[87832Series](#)

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

Termination Interface: Style Surface Mount

Electrical

Current - Maximum per Contact 2A
Voltage - Maximum 125V

Solder Process Data

Duration at Max. Process Temperature (seconds) 10
Lead-free Process Capability Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature 1
Process Temperature max. C 260

Material Info

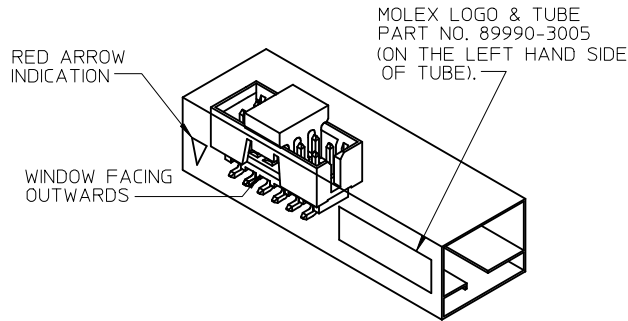
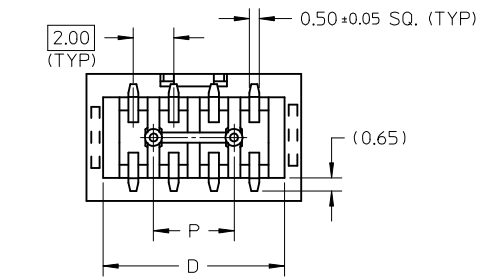
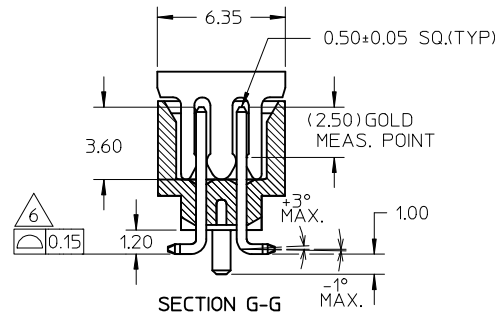
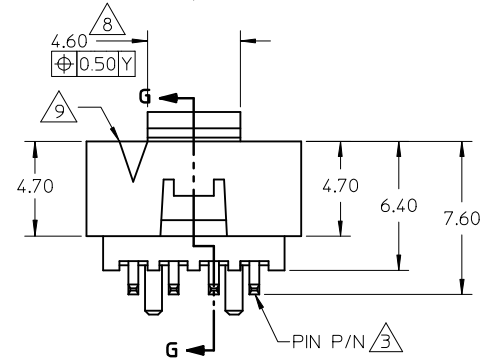
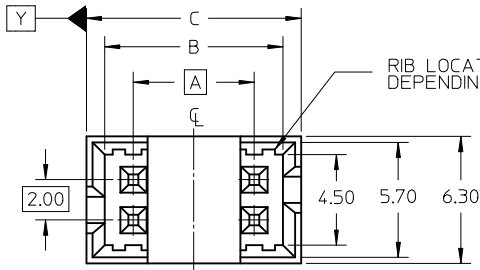
Reference - Drawing Numbers

Product Specification PS-87831-027
Sales Drawing SD-87832-010

This document was generated on 05/25/2010

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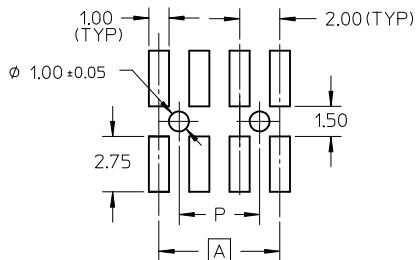
PEG OPTION	P/N WITH CAP IN TAPE & REEL	P/N WITH CAP IN TUBE	P/N WITHOUT CAP IN TUBE	CKT SIZE	DIMENSION				
					A	B	C	D	P
NO	87832-0406	87832-0408	87832-0410	4	2.00	4.85	6.65	5.00	-
YES	87832-0606	87832-0608	87832-0610	6	4.00	6.85	8.65	7.00	2.00
YES	87832-0806	87832-0808	87832-0810	8	6.00	8.85	10.65	9.00	4.00
YES	87832-1006	87832-1008	87832-1010	10	8.00	10.85	12.65	11.00	6.00
YES	87832-1206	87832-1208	87832-1210	12	10.00	12.85	14.65	13.00	8.00



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

NOTES:

- FOR ILLUSTRATION PURPOSES, 8 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL :
HOUSING & CAP : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
- 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.
- PIN PUSHOUT FORCE : 0.91 KG MIN. IN EITHER DIRECTION.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
- BEND DEPRESSION ON SMT TAIL IS ACCEPTABLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF THE TAIL.
- CAP TO BE POSITION IN THE CENTER OF HEADER FOR PICK AND PLACE.
- CKT 4 & 6 HAS NO IDENTIFICATION TAG.
- 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 MOISTURE BARRIER BAG WITH DESICCANT GEL.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 & 6.



RECOMMENDED PCB PATTERN

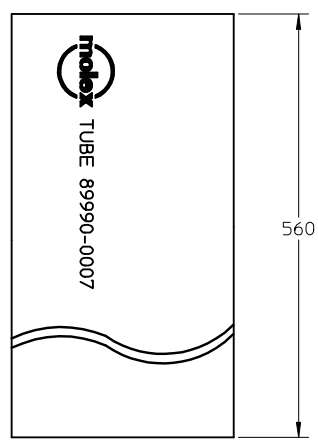
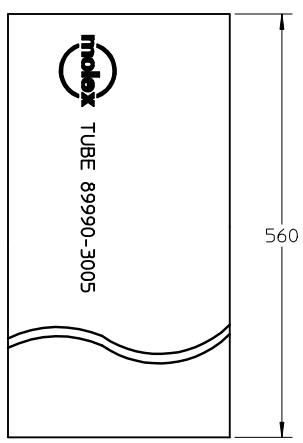
ADD IN NOTES NO.12 EC NO: S2009-0943 DRWN:YMCCHONG CHKD:SKANG APPR:MLONG	REV A5	DESCRIPTION 2009/07/01 2009/07/08 2009/07/16	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
			▽=0 ∠=0	mm INCH	MM ONLY	NTS	METRIC	⊙ □		
				4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	DRAWN BY ATSEE CHECKED BY KCLING APPROVED BY SKTOH	DATE 2003/10/15 DATE 2003/11/07 DATE 2003/11/07	TITLE MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE SMT, IN TUBE AND T&R			
				ANGULAR ± 3 °	MATERIAL NO. SKTOH DOCUMENT NO. MOLEX	2003/11/07	MOLEX INCORPORATED			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE						
					SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

10 9 8 7 6 5 4 3 2 1

WITH CAP
TUBE PACKAGING

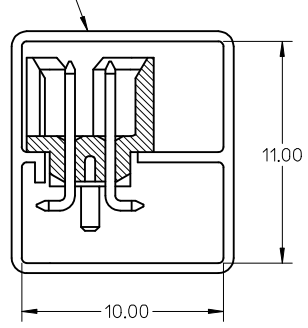
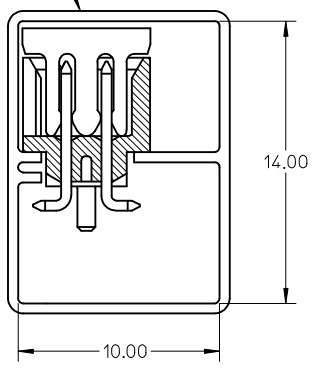
WITHOUT CAP
TUBE PACKAGING

P/N WITH CAP IN T&R	CKT SIZE	F	Bo	So	W
87832-0406	04	7.50	7.15	-	16.00
87832-0606	06	11.50	9.15	-	24.00
87832-0806	08	11.50	11.05	-	24.00
87832-1006	10	11.50	13.05	-	24.00
87832-1206	12	14.20	15.15	28.40	32.00

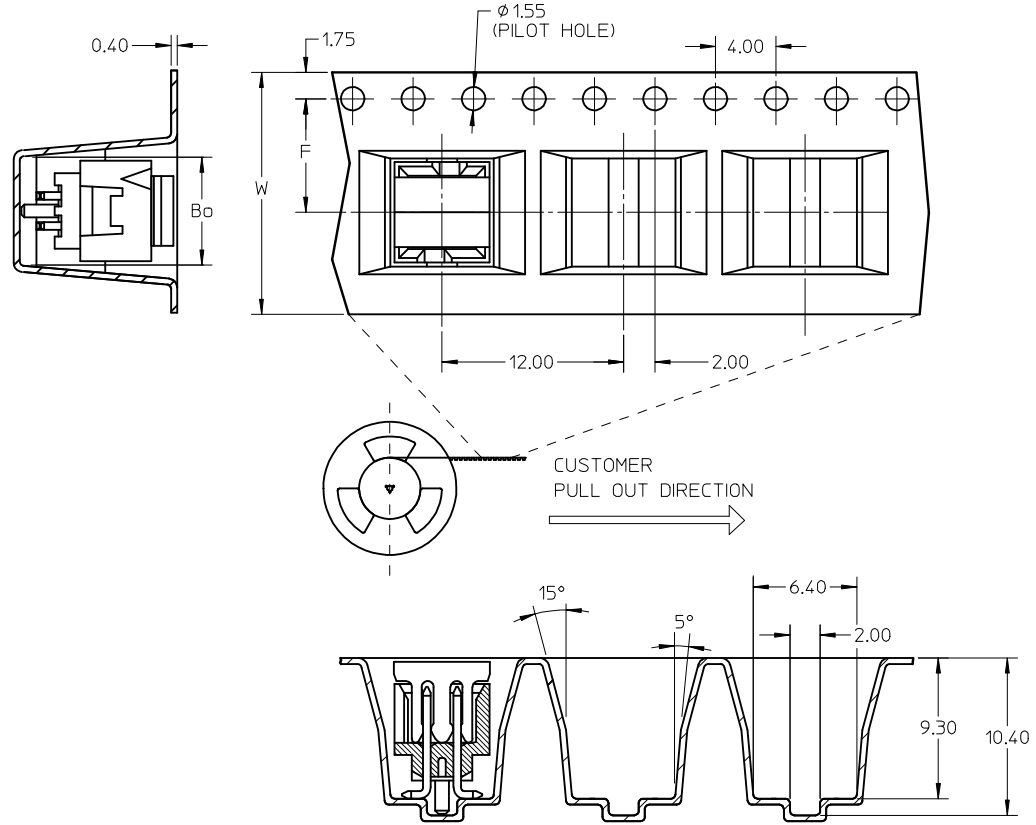


TUBE P/N: 89990-3005

TUBE P/N: 89990-0007

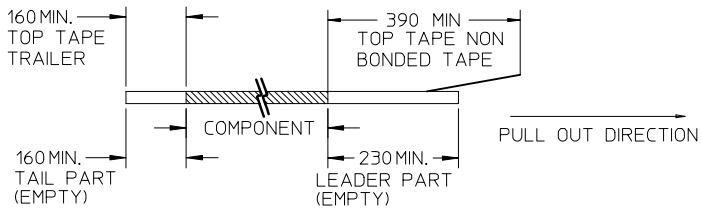


EMBOSSED CARRIER TAPE 'A'

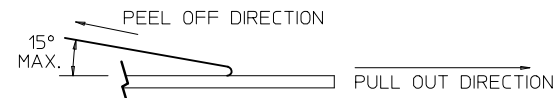


NOTES:

1. LEADER AND TRAILER TAPE



2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



3. PACKAGING STANDARD IS AS PER EIA-481.

ADD IN NOTES NO.12	EC NO: S2009-0943	2009/07/01	QUALITY SYMBOLS
	DRWN:YMC HONG	2009/07/08	
	CHKD:SKANG	2009/07/16	
	APPR:MLONG	2009/07/16	
A5	REV	DESCRIPTION	<p>▽=0</p> <p>◻=0</p>

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
	4 PLACES ± ---	± ---
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	3 PLACES ± ---	± ---
	2 PLACES ± 0.2	± ---
ANGULAR ± 3 °	1 PLACE ± ---	± ---
	SEE TABLE	

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		NTS	METRIC	⊙ □
DRAWN BY	DATE	TITLE		
ATSEE	2003/10/15	MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE SMT, IN TUBE AND T&R		
CHECKED BY	DATE	MOLEX INCORPORATED		
KCL ING	2003/11/07	DOCUMENT NO.		
APPROVED BY	DATE	SD-87832-010		
SKTOH	2003/11/07	SHEET NO.		
MATERIAL NO.	SEE TABLE	2 OF 2		

DRAWN BY		DATE	TITLE		
ATSEE		2003/10/15	MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE SMT, IN TUBE AND T&R		
CHECKED BY		DATE	MOLEX INCORPORATED		
KCL ING		2003/11/07	DOCUMENT NO.		
APPROVED BY		DATE	SD-87832-010		
SKTOH		2003/11/07	SHEET NO.		
MATERIAL NO.		SEE TABLE	2 OF 2		

9 8 7 6 5 4 3 2 1