

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

**Part Number:** [0878321207](#)  
**Status:** **Active**  
**Overview:** milligrid  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 12 Circuits, 0.76µm (30µ") Gold (Au) Plating, with Locking Window, Pick-and-Place Cap, PCB Locator, Embossed Tape on Reel

**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 With Cap|Contact Molex for application in automotive industry  
 Overview [milligrid](#)  
 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 Embossed Tape on Reel  
 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) 75  
 Plating min: Termination (µm) 1.88  
 Polarized to Mating Part Side Slots (2)  
 Polarized to PCB No  
 Shrouded Fully  
 Stackable No

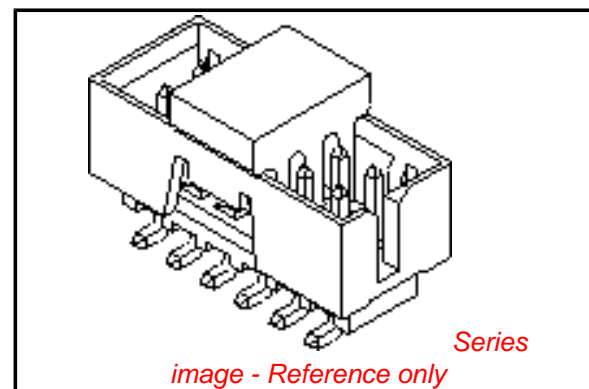


image - Reference only

**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](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**

[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

Temperature Range - Operating	-55°C to +105°C
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**

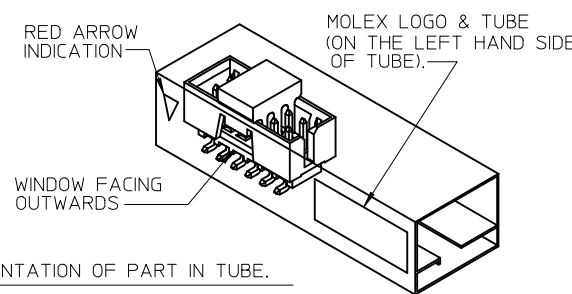
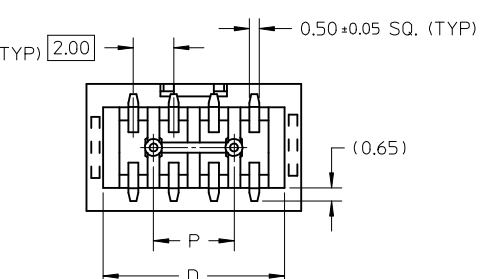
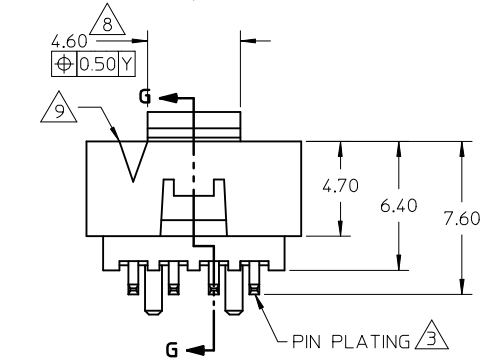
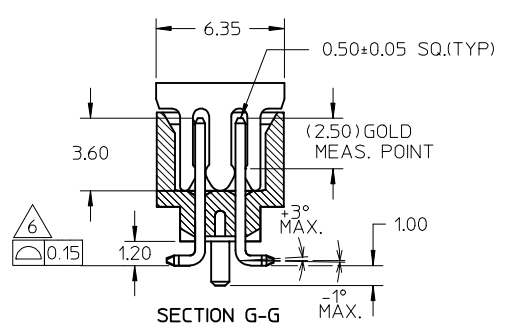
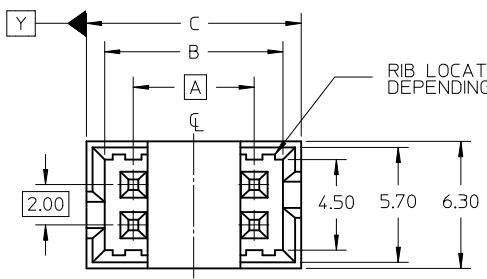
### **Reference - Drawing Numbers**

Product Specification	PS-87831-027
Sales Drawing	SD-87832-011

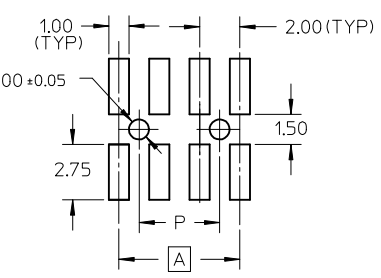
This document was generated on 05/25/2010

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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	87832-0407	87832-0409	87832-0411	4	2.00	4.85	6.65	5.00	-
YES	87832-0607	87832-0609	87832-0611	6	4.00	6.85	8.65	7.00	2.00
YES	87832-0807	87832-0809	87832-0811	8	6.00	8.85	10.65	9.00	4.00
YES	87832-1007	87832-1009	87832-1011	10	8.00	10.85	12.65	11.00	6.00
YES	87832-1207	87832-1209	87832-1211	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:

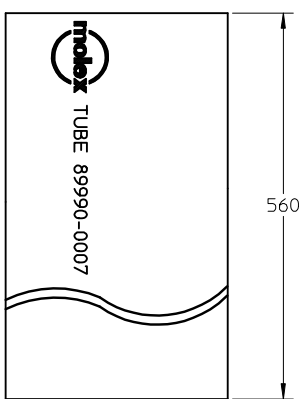
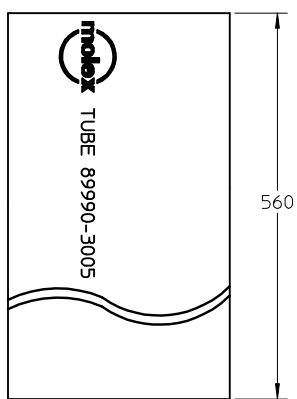
- FOR ILLUSTRATION PURPOSES, 8 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL :  
HOUSING & CAP : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.  
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
- PLATING :  
0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN, NICKEL OVERALL.
- 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.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.

ADD IN NOTES NO.11 EC NO: S2009-0943 DRWN:YCHONG CHKD:SKANG APPR:MLONG	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		mm	INCH	MM ONLY	NTS	METRIC		
		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE	
		3 PLACES	± ---	± ---	ATSEE	2003/10/15	MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE IN TUBE AND T&R, SMT	
			2 PLACES	± 0.2	± ---	CHECKED BY	DATE	
			1 PLACE	± ---	± ---	KCLING	2003/11/07	
			ANGULAR ± 3 °		APPROVED BY	DATE		
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SKTOH	2003/11/07		
			SEE TABLE		MATERIAL NO.	DOCUMENT NO.		
			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
					MOLEX MOLEX INCORPORATED			
					SD-87832-011			
					SHEET NO. 1 OF 2			

10 9 8 7 6 5 4 3 2 1

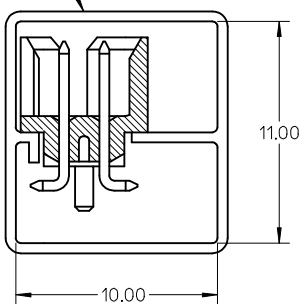
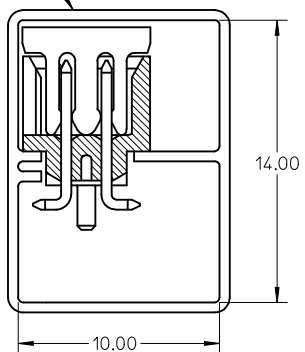
WITH CAP  
TUBE PACKAGING

WITHOUT CAP  
TUBE PACKAGING

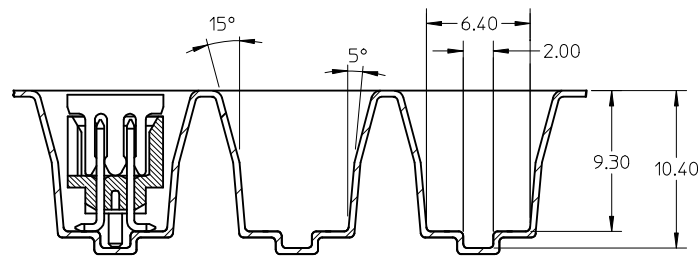
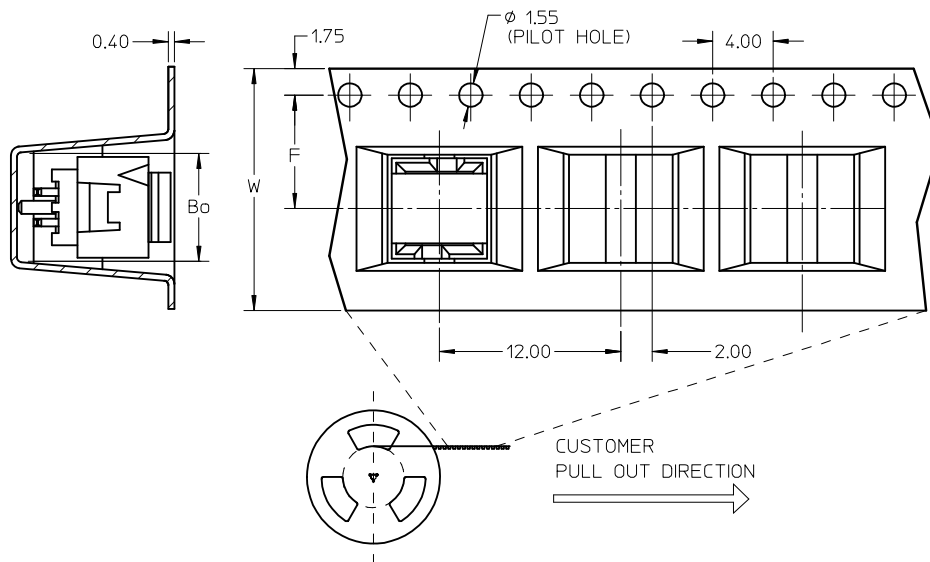


TUBE P/N: 89990-3005

TUBE P/N: 89990-0007



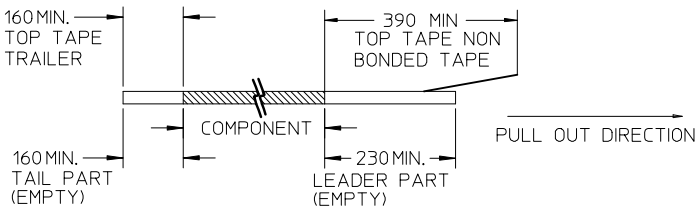
EMBOSSED CARRIER TAPE 'A'



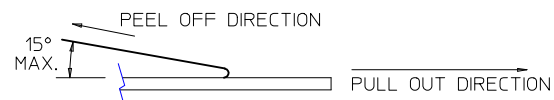
P/N WITH CAP IN T&R	CKT SIZE	F	Bo	So	W
87832-0407	04	7.50	7.15	-	16.00
87832-0607	06	11.50	9.15	-	24.00
87832-0807	08	11.50	11.05	-	24.00
87832-1007	10	11.50	13.05	-	24.00
87832-1207	12	14.20	15.15	28.40	32.00

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.

<b>ADD IN UNIVERSITY NO.11</b> EC NO: S2009-0943 2009/07/01 DRWN: YMC HONG 2009/07/08 CHKD: SKANG 2009/07/16 APPR: MLONG	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DIMENSION STYLE MM ONLY DRAWN BY ATSEE DATE 2003/10/15 CHECKED BY KCL ING DATE 2003/11/07 APPROVED BY SKTOH DATE 2003/11/07	SCALE NTS DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MGRID, SHROUDED HEADER W/PEGS/CAP/LOCK FEATURE IN TUBE AND T&R, SMT MOLEX INCORPORATED DOCUMENT NO. SD-87832-011	SHEET NO. 2 OF 2
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SKTOH	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

9 8 7 6 5 4 3 2 1