

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

**Part Number:** [0878332052](#)  
**Status:** **Active**  
**Overview:** milligrd  
**Description:** 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 20 Circuits, 0.05µm (2µ") Gold (Au) Plating, without PCB Locator, with Locking Windows, Center Polarization Slot, Tube

**Documents:**

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

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [87833](#)  
 Application Wire-to-Board  
 Comments Contact Molex for application in automotive industry  
 Overview [milligrd](#)  
 Product Name Milli-Grid™

**Physical**

Breakaway No  
 Circuits (Loaded) 20  
 Circuits (maximum) 20  
 Color - Resin Black  
 Durability (mating cycles max) 100  
 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 None  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Right Angle  
 PC Tail Length (in) 0.118 In  
 PC Tail Length (mm) 3.00 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) 2  
 Plating min: Mating (µm) 0.05  
 Plating min: Termination (µin) 75  
 Plating min: Termination (µm) 1.88

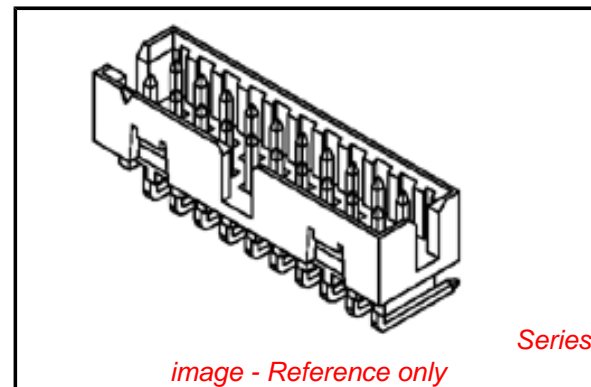


image - Reference only

**EU RoHS**

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

**China RoHS**



**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**

[87833Series](#)

**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)	11
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

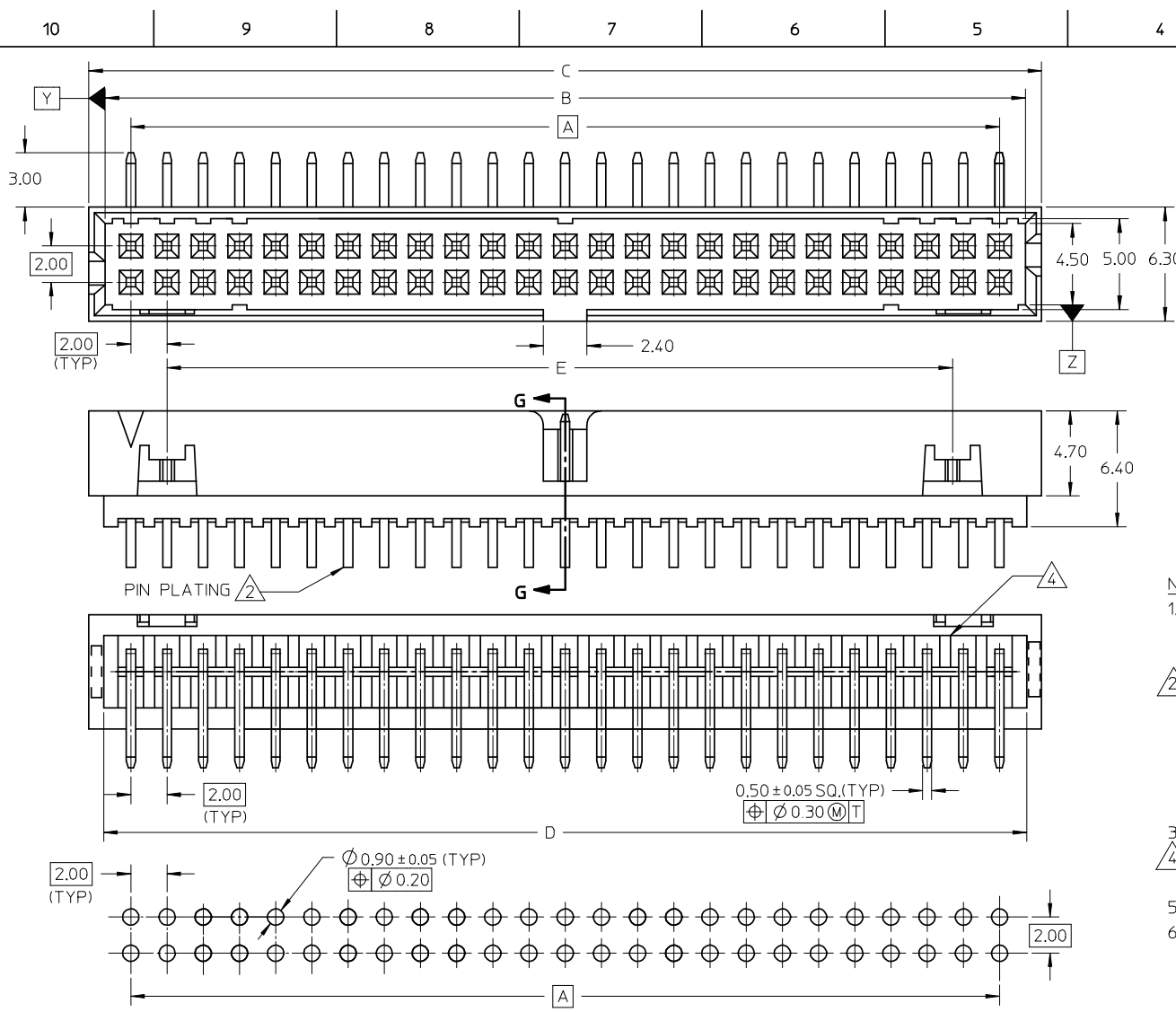
### **Material Info**

### **Reference - Drawing Numbers**

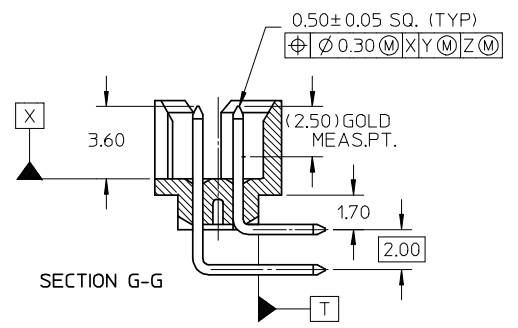
Product Specification	PS-87831-027
Sales Drawing	SD-87833-015

This document was generated on 06/01/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



PART NO.	CKT SIZE	DIMENSION					PLATING OPTION $\triangle$
		A	B	C	D	E	
87833-2052	20	18.00	20.85	22.65	21.00	14.00	2
87833-5050	50	48.00	50.85	52.65	51.00	44.00	1
87833-5052	50	48.00	50.85	52.65	51.00	44.00	2

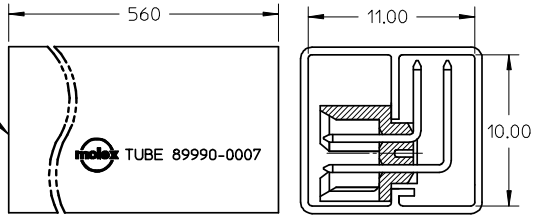


- NOTES:
- MATERIAL :  
HOUSING : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK.  
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
  - PLATING :  
1. 0.38 $\mu$ m GOLD IN CONTACT AREA AND 1.88 $\mu$ m MIN. TIN IN SOLDER TAIL AREA OVER 1.27 $\mu$ m MIN. NICKEL OVERALL.  
2. 0.05 $\mu$ m MIN. TO 0.13 $\mu$ m MAX. GOLD IN CONTACT AREA AND 1.88 $\mu$ m MIN. TIN IN SOLDER TAIL AREA OVER 1.27 $\mu$ m MIN. NICKEL OVERALL.
  - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
  - LINKWAYS VARIES FROM PART TO PART BECAUSE OF DIFFERENT MOLD.
  - PARTS TO BE PACKED IN TUBE.
  - 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

PDR#S-001811-00-00 EC NO: S2008-1107 DRWNS:KANG CHKD:ATSEE APPR:MLONG 2008/06/10 2008/06/10 2008/06/11	QUALITY SYMBOLS $\nabla=0$ $\nabla C=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY ATSEE	DATE 2003/10/27	TITLE MGRID, SHROUDED HDR, R/A W/SLOTS/STANDOFF & LONG SOLDER TAIL 3.00MM			
		4 PLACES	$\pm$ ---	$\pm$ ---	CHECKED BY KCLING	DATE 2003/11/07	MATERIAL NO. SEE TABLE			
		3 PLACES	$\pm$ ---	$\pm$ ---	APPROVED BY SKTOH	DATE 2003/11/07	DOCUMENT NO. SD-87833-015			
2 PLACES	$\pm 0.2$	$\pm$ ---	ANGULAR $\pm 3^\circ$		SHEET NO. 1 OF 2					
1 PLACE	$\pm$ ---	$\pm$ ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

TUBE P/N :  
89990-0007



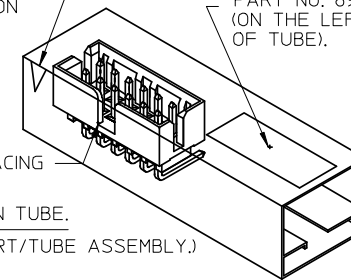
REF: ORIENTATION OF PART IN TUBE.

RED ARROW  
INDICATION

MOLEX LOGO & TUBE  
PART NO. 89990-0007.  
(ON THE LEFT HAND SIDE  
OF TUBE).

WINDOW FACING  
OUTWARDS

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



PDR#S-001811-00-00 EC NO: S2008-1107 DRWN:SKANG 2008/06/10 CHKD:ATSEE 2008/06/10 APPR:MLONG 2008/06/11	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	ATSEE	2003/10/27	MGRID, SHROUDED HDR, R/A W/SLOTS/STANDOFF & LONG SOLDER TAIL 3.00MM			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.2	± ---	KCL ING	2003/11/07	MOLEX INCORPORATED					
1 PLACE	± ---	± ---	APPROVED BY	DATE						
	ANGULAR ± 3 °		SKTOH	2003/11/07	MATERIAL NO.		DOCUMENT NO.			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87833-015		SHEET NO. 2 OF 2			
A4	REV			SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					