

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878321421](#)
Status: **Active**
Overview: milligrd
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 14 Circuits, 0.76µm (30µ") Gold (Au) Plating, with Locking Windows and Center Polarization Slot, PCB Locator, Tube

Documents:

[3D Model](#) [Product Specification PS-87831-027 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

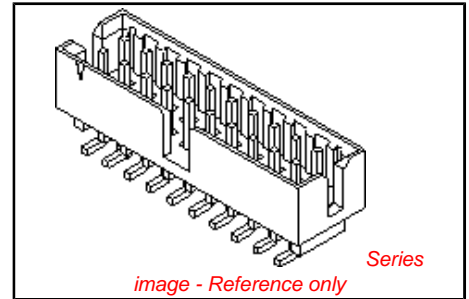
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [87832](#)
 Application Wire-to-Board
 Comments Without Cap; Contact Molex for application in automotive industry
 Overview [milligrd](#)
 Product Name Milli-Grid™

Physical

Breakaway No
 Circuits (Loaded) 14
 Circuits (maximum) 14
 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) 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



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

[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

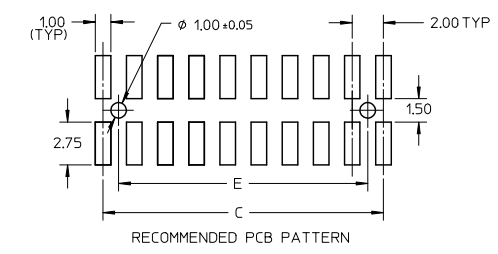
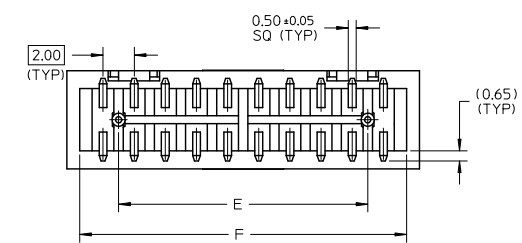
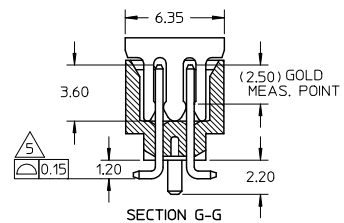
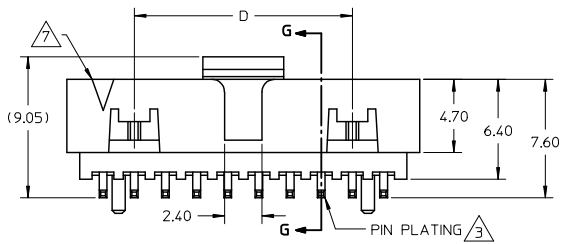
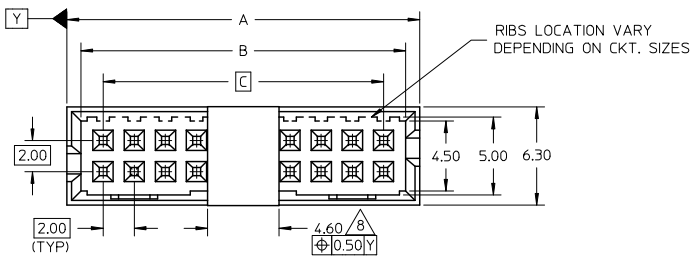
Reference - Drawing Numbers

Product Specification PS-87831-027
Sales Drawing SD-87832-007

This document was generated on 05/25/2010

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10 9 8 7 6 5 4 3 2 1



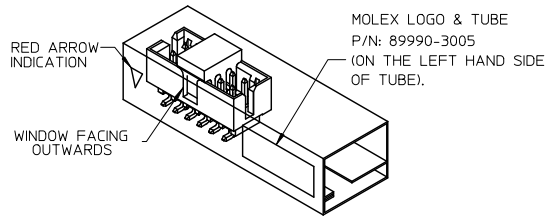
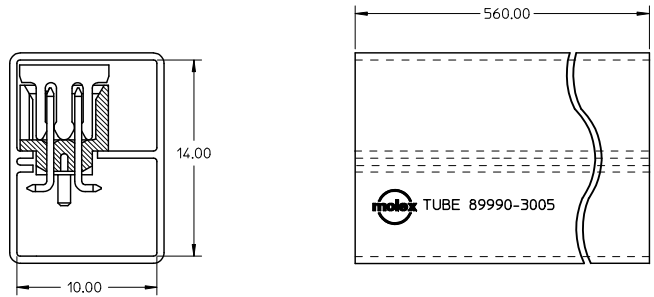
CKT SIZE	DIMENSION					
	A	B	C	D	E	F
4	6.65	4.85	2.00	---	---	5.00
6	8.65	6.85	4.00	---	2.00	7.00
8	10.65	8.85	6.00	---	4.00	9.00
10	12.65	10.85	8.00	---	6.00	11.00
12	14.65	12.85	10.00	---	8.00	13.00
14	16.65	14.85	12.00	8.00	10.00	15.00
16	18.65	16.85	14.00	10.00	12.00	17.00
18	20.65	18.85	16.00	12.00	14.00	19.00
20	22.65	20.85	18.00	14.00	16.00	21.00
22	24.65	22.85	20.00	16.00	18.00	23.00
24	26.65	24.85	22.00	18.00	20.00	25.00
26	28.65	26.85	24.00	20.00	22.00	27.00
28	30.65	28.85	26.00	22.00	24.00	29.00
30	32.65	30.85	28.00	24.00	26.00	31.00
32	34.65	32.85	30.00	26.00	28.00	33.00
34	36.65	34.85	32.00	28.00	30.00	35.00
36	38.65	36.85	34.00	30.00	32.00	37.00
38	40.65	38.85	36.00	32.00	34.00	39.00
40	42.65	40.85	38.00	34.00	36.00	41.00
42	44.65	42.85	40.00	36.00	38.00	43.00
44	46.65	44.85	42.00	38.00	40.00	45.00
46	48.65	46.85	44.00	40.00	42.00	47.00
48	50.65	48.85	46.00	42.00	44.00	49.00
50	52.65	50.85	48.00	44.00	46.00	51.00

ADD 34CKT T&R P/N EC NO: S22009-0642 DRWNSKANG 2009/03/11 CHYKATSEE 2009/03/11 APPR:MLONG 2009/03/18	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.2 ± ---	1 PLACE ± --- ± ---	ANGULAR ± 3°	DRAWN BY ATSEE	DATE 2003/10/14	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		APPROVED BY SKTOH		DATE 2003/11/07		MOLEX INCORPORATED
		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		DOCUMENT NO. SD-87832-007		SHEET NO. 1 OF 4		

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

WITH CAP
TUBE PACKAGING



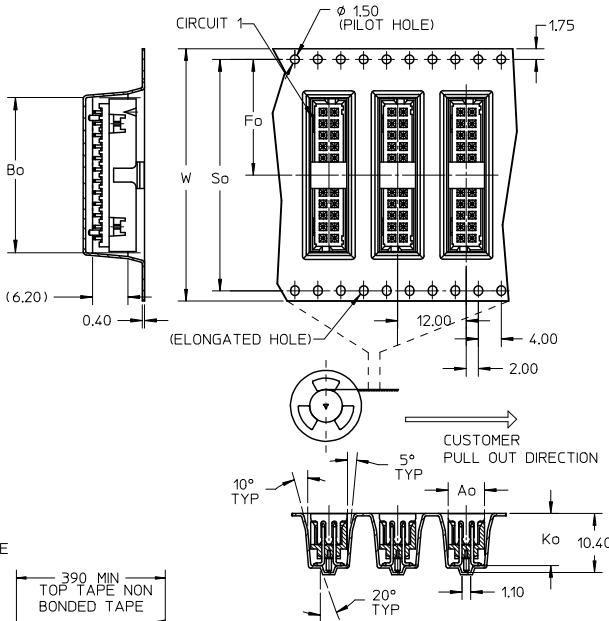
REF : ORIENTATION OF PART IN TUBE.
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY.)

ADD 34CKT T&R P/N EC NO: S2009-0642 DRWNSKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18	DESCRIPTION REV A9	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	mm INCH	DRAWN BY DATE ATSEE 2003/10/14	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R			
		ANGULAR ± 3°		CHECKED BY DATE KCLING 2003/11/07	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE SKTOH 2003/11/07	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87832-007	SHEET NO. 2 OF 4	

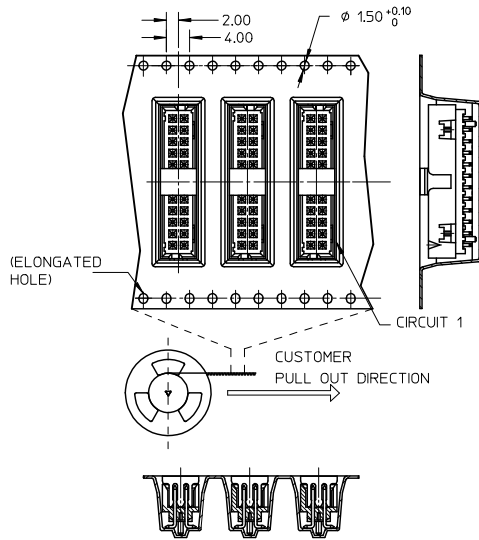
9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

EMBOSSED CARRIER TAPE LAYOUT OPTION A
24 CKT USE FOR ILLUSTRATION ONLY

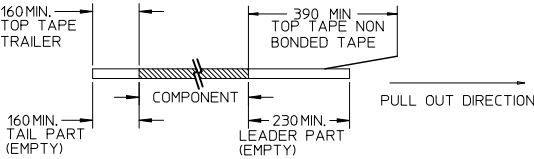


EMBOSSED CARRIER TAPE LAYOUT OPTION B
24 CKT USE FOR ILLUSTRATION ONLY

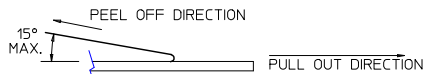


NOTES:

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 34CKT T&R P/N EIC NO: S2009-0642 DRWNSKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18	DESCRIPTION A9	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		▽=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ± 3°	MM ONLY	NTS	METRIC	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY DATE ATSEE 2003/10/14 CHECKED BY DATE KCLING 2003/11/07 APPROVED BY DATE SKTOH 2003/11/07	TITLE	MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R		
		MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87832-007	SHEET NO.	3 OF 4		

10 9 8 7 6 5 4 3 2 1

REV	REG OPTION	P/N W/O CAP IN TUBE	P/N W/CAP IN TUBE (SHEET 2)	P/N W/CAP TAPE & REEL (SHEET 3)	CKT SIZE	DIMENSION						PACKAGING OPTION (SHEET 3)
						W	Fo	Bo	So	Ao	Ko	
	NO	87832-0421	87832-0423	87832-5123	04	16.00	7.50	7.15	-	6.40	9.30	A
	YES	87832-0621	87832-0623	87832-5223	06	24.00	11.50	9.15	-	6.40	9.30	A
	YES	87832-0821	87832-0823	87832-5323	08	24.00	11.50	11.05	-	6.40	9.30	A
	YES	87832-1021	87832-1023	87832-5423	10	24.00	11.50	13.05	-	6.40	9.30	A
	YES	87832-1221	87832-1223	87832-5523	12	32.00	14.20	15.15	28.40	6.40	9.30	A
	YES	87832-1421	87832-1423	87832-5623	14	32.00	14.20	17.05	28.40	6.40	9.30	A
	YES	87832-1621	87832-1623	87832-5723	16	32.00	14.20	19.05	28.40	6.40	9.30	A
	YES	87832-1821	87832-1823	87832-5823	18	44.00	20.20	21.05	40.40	6.40	9.30	A
	YES	87832-2021	87832-2023	87832-5923	20	44.00	20.20	23.05	40.40	6.40	9.30	A
	YES	87832-2221	87832-2223	87832-6023	22	44.00	20.20	25.05	40.40	6.40	9.30	A
	YES	87832-2421	87832-2423	87832-6123	24	44.00	20.20	27.05	40.40	6.40	9.30	A
	YES	87832-2621	87832-2623	87832-6223	26	44.00	20.20	29.05	40.40	6.40	9.30	A
	YES	87832-2821	87832-2823	87832-6323	28	56.00	26.20	31.05	52.40	6.40	9.30	A
	YES	87832-3021	87832-3023	87832-6423	30	56.00	26.20	33.05	52.40	6.40	9.30	A
	YES	87832-3221	87832-3223	--	32	--	--	--	--	--	--	-
	YES	87832-3421	87832-3423	87832-6623	34	56.00	26.20	37.05	52.40	6.40	9.30	A
	YES	87832-3621	87832-3623	--	36	--	--	--	--	--	--	-
	YES	87832-3821	87832-3823	--	38	--	--	--	--	--	--	-
	YES	87832-4021	87832-4023	87832-6923	40	56.00	26.20	43.05	52.40	6.40	9.30	A
	YES	87832-4221	87832-4223	--	42	--	--	--	--	--	--	-
	YES	87832-4421	87832-4423	87832-7123	44	56.00	26.20	46.80	52.40	6.40	9.30	A
	YES	87832-4621	87832-4623	--	46	--	--	--	--	--	--	-
	YES	87832-4821	87832-4823	--	48	--	--	--	--	--	--	-
	YES	87832-5021	87832-5023	87832-7423	50	72.00	34.20	53.05	68.40	6.40	9.30	A
	YES	--	--	87832-9423	10	24.00	11.50	13.05	-	6.40	9.30	B

PLS REFER TO PART 87832-***09 FOR CENTER LOCKING SLOT OPTION.

- NOTES:
- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
 - MATERIAL : HOUSING & CAP : 30% GF., NYLON 46, UL94V-0, COLOR BLACK. PIN : 0.50MM SQ.PHOSPHOR BRONZE.
 - PLATING : 0.76um/30uin GOLD IN CONTACT AREA AND 188um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
 - PRODUCT SPECIFICATION PS-87831-027 APPLIES.
 - COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
 - NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
 - POSITION OF CAP TO BE LOCATED AT CENTER OF DIMENSION 'A' REGARDLESS OF CIRCUIT SIZE.
 - TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK-&-PLACE BY VACUUM SUCTION NOZZLE.
 - THIS HEADER MATES WITH MOLEX:
 - CRIMP RECEPTACLE HOUSING, 5110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
 - 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
 - NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
 - PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.

ADD 34CKT T&R P/N
 EC NO: S2009-0642
 DIRWNSKANG 2009/03/11
 CHYKATSEE 2009/03/11
 APPR:MLONG 2009/03/18

QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	mm	INCH	DRAWN BY ATSEE	DATE 2003/10/14	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R		
	4 PLACES ± --- ± ---		CHECKED BY KCLING	DATE 2003/11/07	MOLEX INCORPORATED		
	3 PLACES ± --- ± ---		APPROVED BY SKTOH	DATE 2003/11/07	DOCUMENT NO. SD-87832-007		
	2 PLACES ± 0.2 ± ---		MATERIAL NO. SEE TABLE		SHEET NO. 4 OF 4		
	1 PLACE ± --- ± ---		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		
	ANGULAR ± 3°						

tb_frame_A3_P_AM.T
 Rev. E 2006/04/15

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