

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0879394001](#)
Status: **Active**
Overview: [cgrid_iii](#)
Description: 2.54mm (.100") Pitch C-Grid® Header, Surface Mount, Dual Row Dual Body, with Plastic Pegs, 40 Circuits, 0.75µm (30µ") Gold (Au) Selective Plating, 6.40mm(.251") Stacking Height, Tray Packaging, Lead-free

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

General

Product Family	PCB Headers
Series	87939
Application	Board-to-Board, Wire-to-Board
Comments	Custom Header, without Cap
Overview	cgrid_iii
Product Name	C-Grid®, Dual Body

Physical

Breakaway	Yes
Circuits (Loaded)	40
Circuits (maximum)	40
Color - Resin	Black
First Mate / Last Break	No
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	None
Lock to Mating Part	None
Mated Height (in)	0.315 In
Mated Height (mm)	8.00 mm
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Vertical
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.063 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.100 In
Pitch - Mating Interface (mm)	2.54 mm
Pitch - Term. Interface (in)	0.100 In
Pitch - Term. Interface (mm)	2.54 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.75
Plating min: Termination (µin)	79
Plating min: Termination (µm)	2.00
Polarized to Mating Part	No
Polarized to PCB	No
Shrouded	No
Stackable	Yes
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Surface Mount

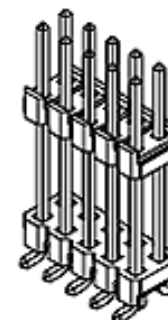


image - Reference only

Series

EU RoHS

**ELV and RoHS
Compliant**
**REACH SVHC
Not Reviewed**
**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

[87939Series](#)

Mates With

[87985](#) Milli-Grid™ 2mm IDT Receptacle with Metal Latch

Electrical

Current - Maximum per Contact

3A

Voltage - Maximum

250V

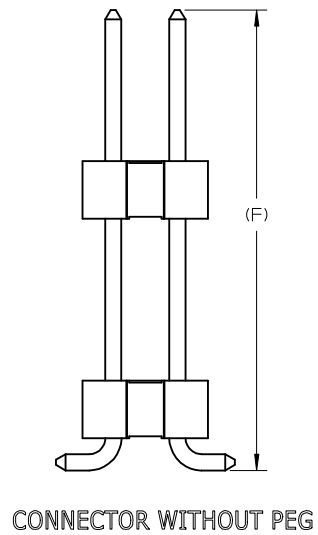
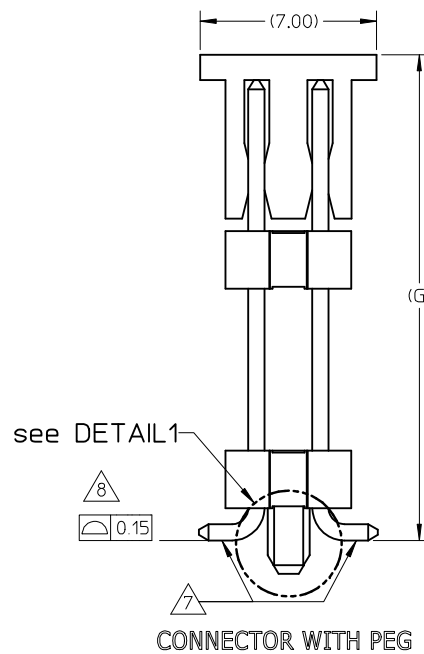
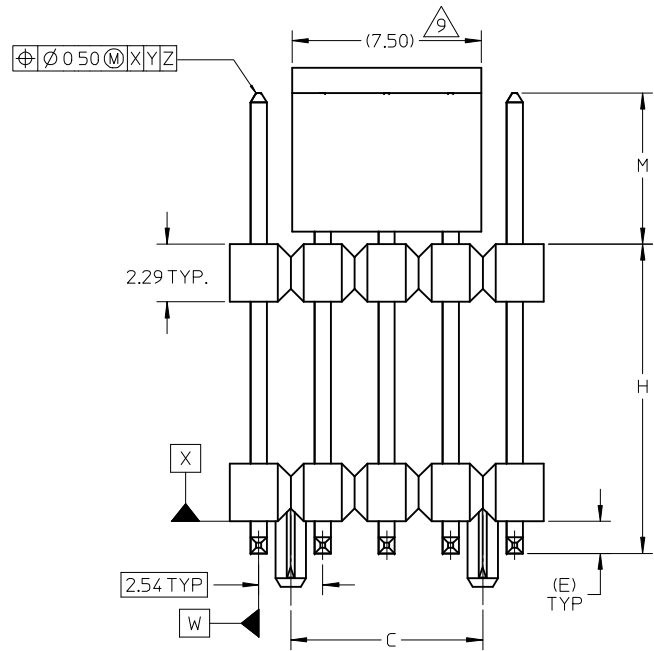
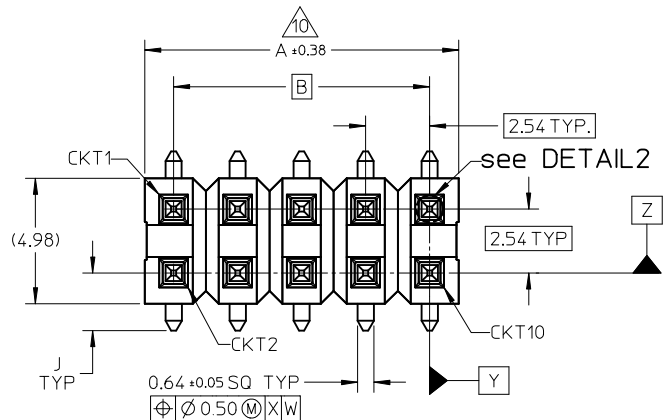
Material Info**Reference - Drawing Numbers**

Sales Drawing

SD-87939-017

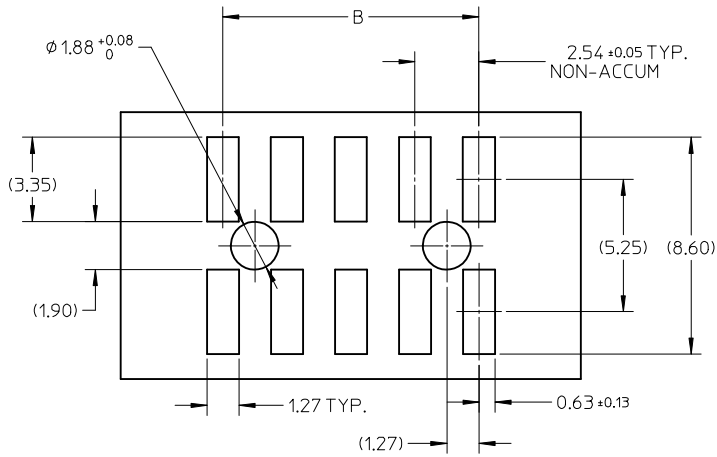
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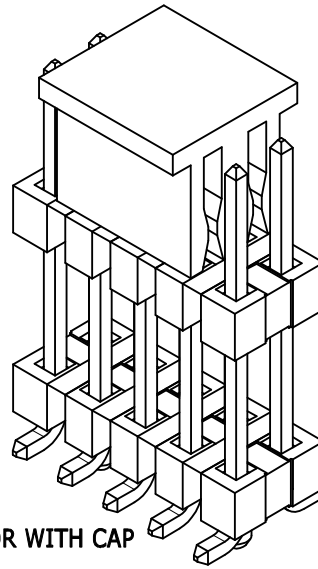


CKT SIZE	DIMENSION		
	A	B	C
04	5.08	2.54	-
06	7.62	5.08	-
08	10.16	7.62	5.08
10	12.70	10.16	7.62
12	15.24	12.70	10.16
14	17.78	15.24	12.70
16	20.32	17.78	15.24
18	22.86	20.32	17.78
20	25.40	22.86	20.32
22	27.94	25.40	22.86
24	30.48	27.94	25.40
26	33.02	30.48	27.94
28	35.56	33.02	30.48
30	38.10	35.56	33.02
32	40.64	38.10	35.56
34	43.18	40.64	38.10
36	45.72	43.18	40.64
38	48.26	45.72	43.18
40	50.80	48.26	45.72

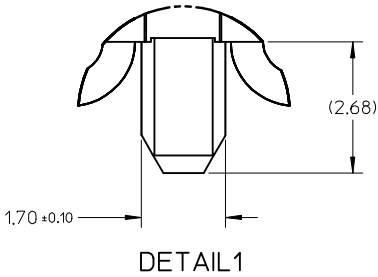
UPDATE DWG EC NO: S2009-0754 DRWN: YMCHEONG CHKD: ATSEE APPR: MLONG	QUALITY SYMBOLS ▽=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr><th></th><th>mm</th><th>INCH</th></tr> <tr><td>4 PLACES</td><td>± ---</td><td>± ---</td></tr> <tr><td>3 PLACES</td><td>± ---</td><td>± ---</td></tr> <tr><td>2 PLACES</td><td>± 0.2</td><td>± ---</td></tr> <tr><td>1 PLACE</td><td>± ---</td><td>± ---</td></tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.2	± ---	1 PLACE	± ---	± ---	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH																		
	4 PLACES	± ---	± ---																		
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1 PLACE	± ---	± ---																			
DESCRIPTION A7	ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY SKLIM01	DATE 2006/06/29	TITLE CUSTOM HEADER CGRID, DUAL ROW HDR, DUAL BODY, SMT W/PEGS, VERT.	MOLEX INCORPORATED															
			CHECKED BY PATEY	DATE 2006/07/07	APPROVED BY PATEY	DATE 2006/07/07															
			MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87939-017	SHEET NO. 1 OF 4	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															



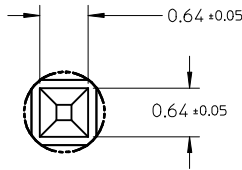
RECOMMENDED PCB LAYOUT: SOLDER SIDE



ISO VIEW CONNECTOR WITH CAP



DETAIL 1



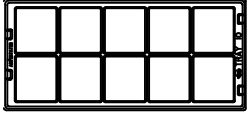
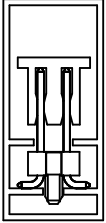
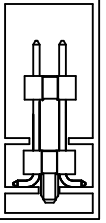
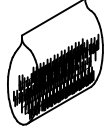
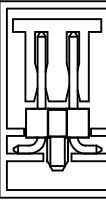
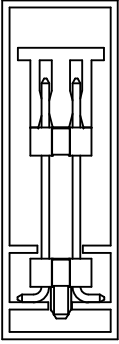
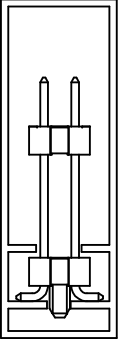
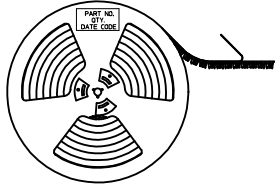
DETAIL 2

NOTES

1. MATERIAL:
 - HSG: LCP, GLASS-FILLED, UL94V-0, COLOR: BLACK
 - CAP: NYLON, GLASS-FILLED, UL94V-0, COLOR: BLACK
 - PIN: 0.64MM SQ, COPPER ALLOY
2. PLATING TYPE:
 - (1) GOLD FLASH OVER
1.25μm MIN. NICKEL OVERALL
 - (2) 0.05μm MIN. GOLD PLATE ON CONTACT AND
2.50μm MIN. TIN ON SOLDER TAIL OVER
1.25μm MIN. NICKEL OVERALL.
 - (3) 0.38μm MIN. GOLD PLATE ON CONTACT AND
2.00μm MIN. TIN ON SOLDER TAIL OVER
1.25μm MIN. NICKEL OVERALL.
 - (4) 0.75μm MIN. GOLD PLATE ON CONTACT AND
2.00μm MIN. TIN ON SOLDER TAIL OVER
1.25μm MIN. NICKEL OVERALL.
 - (5) 2.50μm MIN. TIN OVERALL
1.25μm MIN. NICKEL OVERALL
3. PACKAGING TYPE: SEE TABLE
4. PCB THICKNESS 1.60 +/- 0.10mm
5. PRODUCT SPECIFICATION: PS-87920-019
6. WAFER TO BE FLAT WITHIN 0.003 mm/mm
7. BEND DEPRESSION IS ACCEPTED SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF TAIL
8. COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A FLAT SURFACE
9. CAP LOCATION IS CENTERED ALONG THE MATING ENDS AS SHOWN. TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK & PLACE BY VACUUM SUCTION NOZZLE
10. IRREGULAR CIRCUIT CUTOFF WITHIN BREAKAWAY SECTION IS PERMISSIBLE. CUTTING OR CHIPPING OF THE MAIN BODY IS NOT ACCEPTABLE
11. PARTS ARE NOT STACKABLE ON 2.54 CENTER
12. THE ABOVE CKT 10 IS FOR ILLUSTRATION PURPOSE ONLY
13. TUBE LENGTH IS 560MM PER STANDARD
14. PACKAGING SPECIFICATION: PLS REFER TO SHEET 3

UPDATE DWG EC NO: S2009-0754 DRWN: YMCHEONG CHKD: ATSEE APPR: MLONG	DESCRIPTION 2009/04/14 2009/04/15 2009/04/15	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		$\nabla = 0$ $\square = 0$	mm	INCH	MM ONLY	NTS	METRIC		
		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE		
		3 PLACES	± ---	± ---	SKLIM01	2006/06/29	CUSTOM HEADER		
2 PLACES	± 0.2	± ---	CHECKED BY	DATE	CGRID, DUAL ROW HDR, DUAL				
1 PLACE	± ---	± ---	PATEY	2006/07/07	BODY, SMT W/PEGS, VERT.				
ANGULAR ± 3 °			APPROVED BY	DATE	MOLEX MOLEX INCORPORATED				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			PATEY	2006/07/07	MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
			SEE TABLE		SD-87939-017		2 OF 4		
			SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
			A3						

PACKAGING SPECIFICATION OVERVIEW

ITEM	PACKAGING TYPE	PACKAGING SPECIFICATION	RECOMMENDED LOADED ASSY HEIGHT	PART PACKED IN PACKAGING ORIENTATION (FOR REF. USE ONLY)	ITEM	PACKAGING TYPE	PACKAGING SPECIFICATION	RECOMMENDED LOADED ASSY HEIGHT	PART PACKED IN PACKAGING ORIENTATION (FOR REF. USE ONLY)
1	TRAY	PK-89990-489	DIM G/F= 60.0MM MAX.		4	TUBE	PK-89990-507	DIM G/F= <16.0MM	 HEADER WITH CAP IN TUBE  HEADER WITHOUT CAP IN TUBE
2	BULK	PK-89990-491	-		5	TUBE	PK-89990-478	DIM G/F= 10.7MM MAX.	 ONLY PACKED HEADER WITH CAP IN TUBE
3	TUBE	PK-89990-508	DIM G/F= 16.1~23.0MM	 HEADER WITH CAP IN TUBE  HEADER WITHOUT CAP IN TUBE	6	TAPE & REEL	PK-89990-486 (REEL ϕ : 330.0 MAX.)	DIM G/F= 15.0MM MAX.	

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$\nabla=0$ $\square=0$	DRAWN BY: SKLIM01 DATE: 2006/06/29	TITLE: CUSTOM HEADER CGRID, DUAL ROW HDR, DUAL BODY, SMT W/PEGS, VERT.																								
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY: PATEY DATE: 2006/07/07	MOLEX INCORPORATED																								
SIZE: A3	APPROVED BY: PATEY DATE: 2006/07/07	MATERIAL NO.: SEE TABLE DOCUMENT NO.: SD-87939-017 SHEET NO.: 3 OF 4																								

10 9 8 7 6 5 4 3 2 1

PART NUMBER IN PACKAGING OPTION

DIMENSION

TRAY PACKED WITH CAP	TRAY PACKED WITHOUT CAP	TUBE WITH CAP	TUBE WITHOUT CAP	TAPE & REEL WITH CAP	BULK PACKED WITH CAP	BULK PACKED WITHOUT CAP	CKT SIZE	PEG	PLATE OPT.	PK SPEC.	G	F	MATING END		E	J
													M	H		
-	-	-	87939-0800	-	-	-	8	Y	5	3	-	23.10	5.24	17.86	1.27	2.28
-	-	-	87939-0002	-	-	-	12	N	3	4	-	14.40	5.90	8.50	1.27	2.22
-	-	-	87939-2000	-	-	-	20	Y	5	3	-	20.00	4.65	15.35	1.27	2.28
-	87939-0034	-	-	-	-	-	34	Y	5	1	-	17.89	2.79	15.10	1.27	2.28
-	-	-	87939-0003	-	-	-	40	N	3	4	-	14.40	5.90	8.50	1.27	2.22
-	87939-2801	-	-	-	-	-	28	Y	5	1	-	16.89	3.68	13.21	1.27	2.28
-	87939-2802	-	-	-	-	-	28	N	5	1	-	16.89	3.68	13.21	1.27	2.28
-	87939-4001	-	-	-	-	-	40	Y	4	1	-	14.40	8.00	6.40	1.27	2.28

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			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
			A7		A3	SIZE	
			A7		A3	SIZE	

9 8 7 6 5 4 3 2 1