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Part Number: [0879392000](#)
Status: **Active**
Overview: [cgrid_iii](#)
Description: 2.54mm (.100") Pitch C-Grid® Header, Surface Mount, Dual Row Dual Body, with Plastic Pegs, 20 Circuits, 2.50µm (100µ") Tin (Sn) Plating, 15.35mm(.604") Stacking Height, Tube Packaging, Lead-free

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Product Specification PS-87920-019 \(PDF\)](#)

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)	20
Circuits (maximum)	20
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)	0.183 In
Mated Height (mm)	4.65 mm
Material - Metal	Copper Alloy
Material - Plating Mating	Tin
Material - Plating Termination	Nickel
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Vertical
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Tube
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)	98
Plating min: Mating (µm)	2.50
Plating min: Termination (µin)	49
Plating min: Termination (µm)	1.25
Polarized to Mating Part	No
Polarized to PCB	No
Shrouded	No
Stackable	No
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Surface Mount

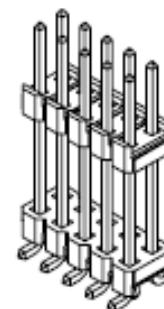


image - Reference only

Series

EU RoHS

ELV and RoHS Compliant
REACH SVHC
 Not Reviewed
Halogen-Free Status
 Not Reviewed

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

Solder Process Data

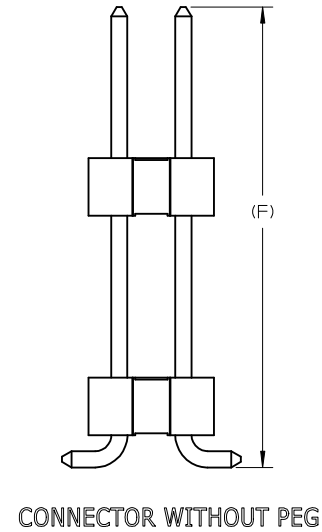
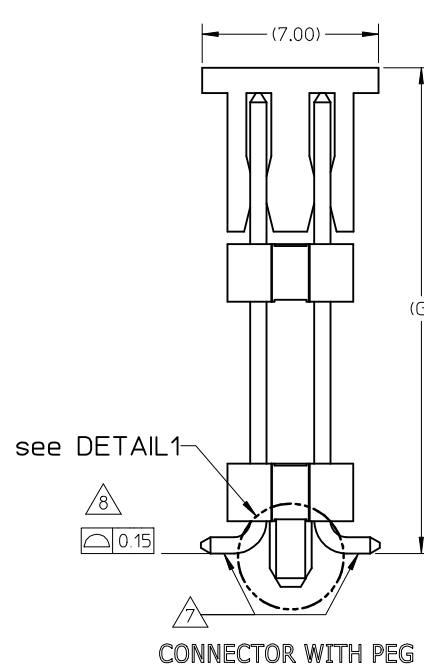
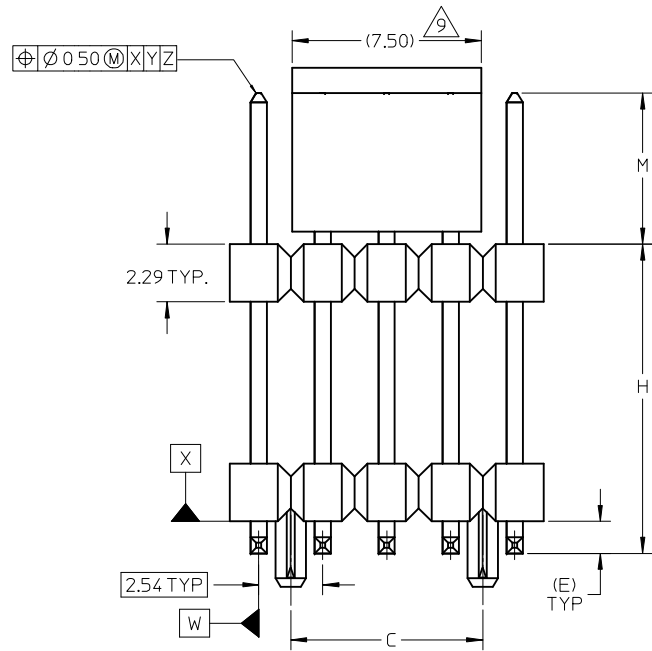
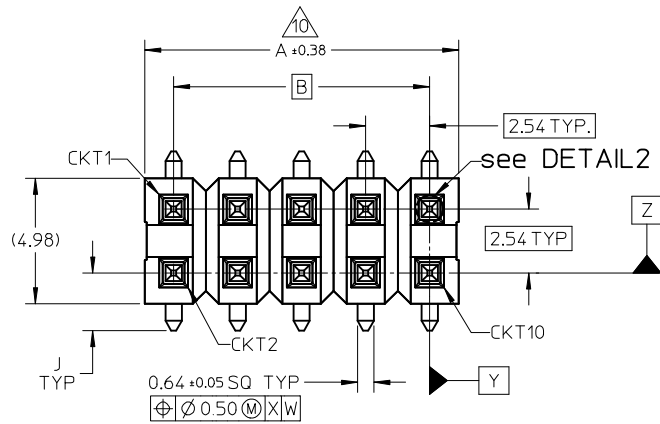
Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	10
Process Temperature max. C	260

Material Info**Reference - Drawing Numbers**

Packaging Specification	PK-89990-507, PK-89990-512
Product Specification	PS-87920-019
Sales Drawing	SD-87939-017

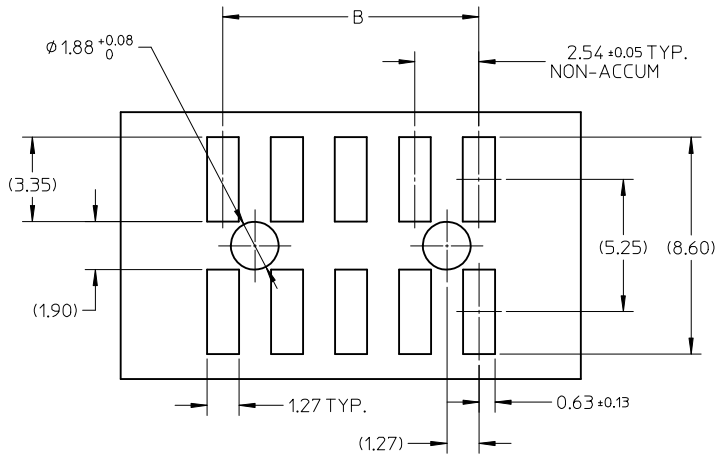
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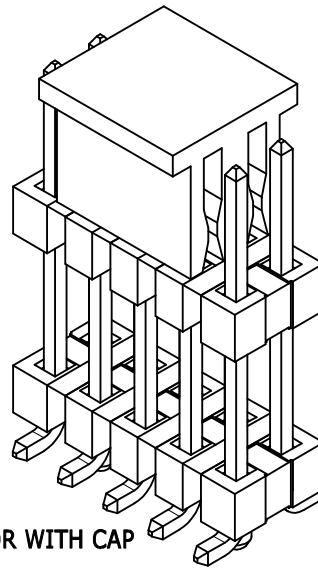


CKT SIZE	DIMENSION		
	A	B	C
04	5.08	2.54	-
06	7.62	5.08	-
08	10.16	7.62	5.08
10	12.70	10.16	7.62
12	15.24	12.70	10.16
14	17.78	15.24	12.70
16	20.32	17.78	15.24
18	22.86	20.32	17.78
20	25.40	22.86	20.32
22	27.94	25.40	22.86
24	30.48	27.94	25.40
26	33.02	30.48	27.94
28	35.56	33.02	30.48
30	38.10	35.56	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

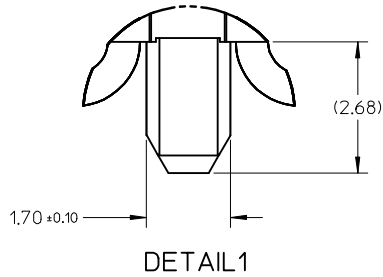
UPDATE DWG EC NO: S2009-0754 DRWN: YMCHEONG CHKD: ATSEE APPR: MLONG	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DIMENSION STYLE MM ONLY DRAWN BY SKLIM01 CHECKED BY PATEY APPROVED BY PATEY MATERIAL NO. SEE TABLE	DATE 2006/06/29 DATE 2006/07/07 DATE 2006/07/07	SCALE NTS DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE CUSTOM HEADER CGRID, DUAL ROW HDR, DUAL BODY, SMT W/PEGS, VERT. MOLEX INCORPORATED	DOCUMENT NO. SD-87939-017 SHEET NO. 1 OF 4	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
	REV A7	DESCRIPTION						
	CUSTOMER: MORGAN MACHINERY & TOOL CO.							



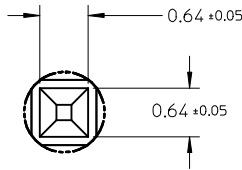
RECOMMENDED PCB LAYOUT: SOLDER SIDE



ISO VIEW CONNECTOR WITH CAP



DETAIL 1



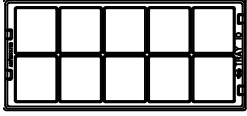
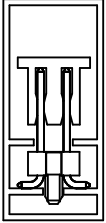
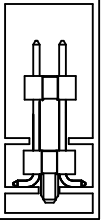
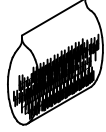
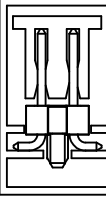
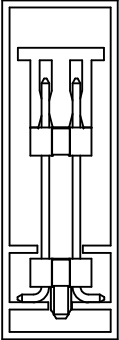
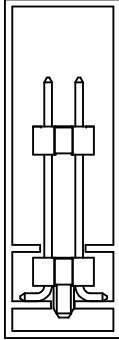
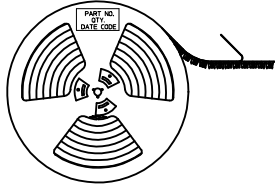
DETAIL 2


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	2009/04/14 2009/04/15 2009/04/15	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			$\nabla=0$ $\square=0$	(UNLESS SPECIFIED) mm INCH	MM ONLY	NTS	METRIC	
			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	DRAWN BY: SKLIM01 DATE: 2006/06/29 CHECKED BY: PATEY DATE: 2006/07/07 APPROVED BY: PATEY DATE: 2006/07/07	TITLE	CUSTOM HEADER		
			ANGULAR ± 3 °	MATERIAL NO. DOCUMENT NO. SHEET NO.	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MOLEX INCORPORATED SD-87939-017	2 OF 4

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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						mm	INCH	DRAWN BY	DATE	TITLE CUSTOM HEADER CGRID, DUAL ROW HDR, DUAL BODY, SMT W/PEGS, VERT.				
						4 PLACES	± ---	± ---	SKLIM01					
						3 PLACES	± ---	± ---	CHECKED BY	DATE	 MOLEX INCORPORATED			
		2 PLACES	± 0.2	± ---	PATEY	2006/07/07								
		1 PLACE	± ---	± ---	APPROVED BY	DATE	DOCUMENT NO. SD-87939-017							
		ANGULAR ± 3 °		PATEY	2006/07/07	SHEET NO. 3 OF 4								
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			

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									
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			MOLEX INCORPORATED									

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