Jameco Part Number 803840

PRODUCT SPECIFICATION

1.0 SCOPE

This specification covers the performance requirements for Milli-Grid 2mm Dual Row Shrouded Headers.

2.0 PRODUCT DESCRIPTION

2.1 Product covered by this specification are for series number

Product Name	Part Number
MGrid Headers (Vertical)	87831 Series
MGrid Headers (SMT)	87832 Series
MGrid Headers (R/A)	87833 Series

These series mate with Molex :
1. Milli-Grid 2mm Grid Wire to Board Connector,
   Crimp Receptacle Housing, 51110 series and Crimp Terminal, 50394 series.
2. 2mm Milli-Grid Dual Row IDT, 87568 series.

2.2 For dimensions, materials & plating, refer to the appropriate product drawings.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

The following documents are part of this specification to the extent specified herewith.
In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence.
In the event of conflict between the requirements of this specification and reference documents, this specification shall take the precedence.

MIL-STD-202 Test Methods for Electrical and Electronic Component Parts.

MIL-STD-1344 Test Methods of Electrical Connector

Reference Product Specifications

PS-51110-001 Milli-Grid 2mm Grid Wire to Board Connector

PS-87568-004 2mm Milli-Grid Dual Row IDT Receptacle

4.0 RATINGS

4.1 Voltage : 125

4.2 Current : 2.00 Amp MAXIMUM

4.3 Operating Temperature : -55°C to +105°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Insulation Resistance**	Apply 500 VDC for 1 minute per MIL-STD-1344A, METHOD 3003.1	**1000** Megaohms minimum
2	**Dielectric Strength**	1000 Vrms for 1 minute between adjacent terminals.	No breakdown

5.2 MECHANICAL REQUIREMENTS

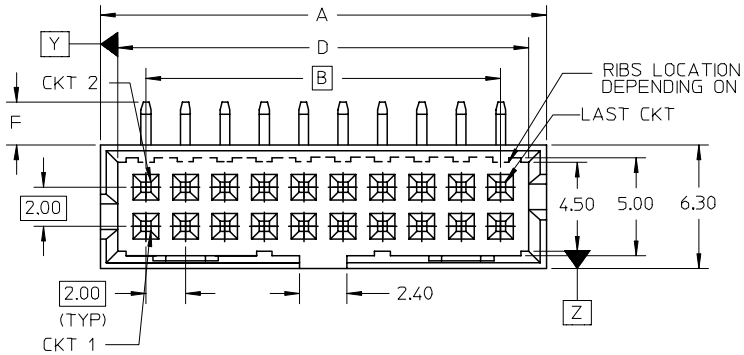
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	**Pin/ Terminal Retention Force (in Housing)**	Apply an axial load on the terminal in the housing to dislodge the terminals from the connector at a rate of 0.50 inch per minute	Retention Force : 850 g Min per pin. (Before heat soldering)

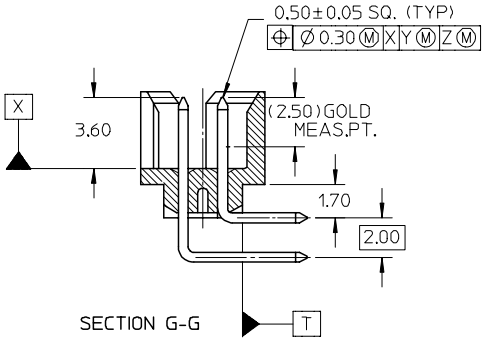
5.3 ENVIROMENT REQUIREMENTS

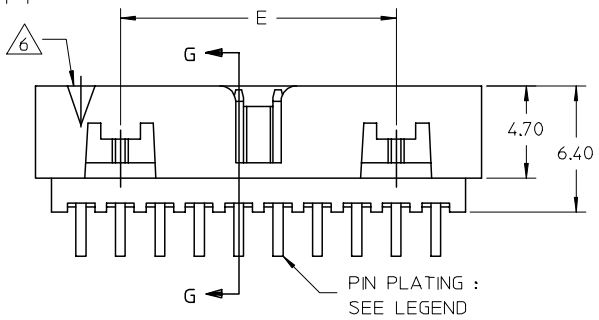
4.	**Solderability**	Solder Time: 5 +/-0.5 secs . Solder Temperature : 260+/- 5°C	95% of the immersed area must show no voids ,pin holes.
5.	**Resistance to Soldering Heat (Through Hole)**	Solder tail to be dipped in flux as per MIL-STD-202F method 210 condition B.	No damage in appearance of the connector
6.	**Resistance to Infra-Red Heat (SMT)**	Subject connector to the IR Reflow temp. of 260 +/-5 C for 12 +/-2 sec.	No damage in appearance of the connector

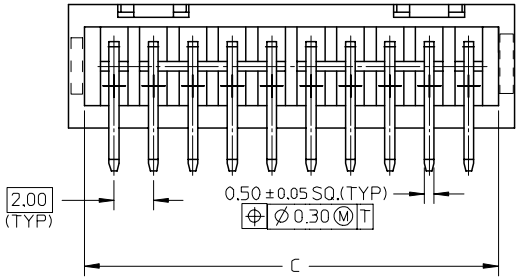
6.0 Packaging

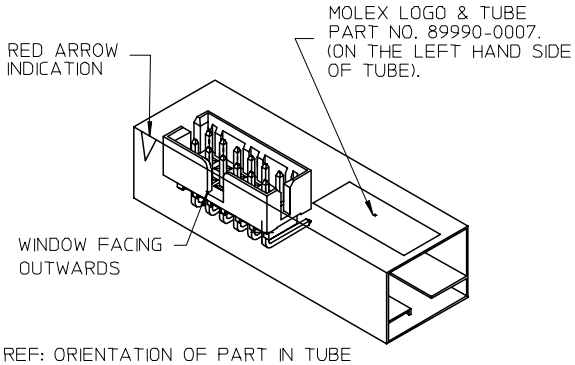
Product shall be packed in either Tube or Tape & Reel and protected against damage during handling, transportation and storage.





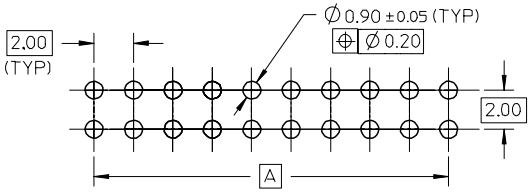






REF: ORIENTATION OF PART IN TUBE

(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



RECOMMENDED PCB PATTERN

NOTES:

1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL :
   HOUSING : NYLON 46, UL94V-0, COLOR BLACK.
   PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
7. THIS HEADER MATES WITH MOLEX:
   a) CRIMP RECEPTACLE HOUSING, 51110 SERIES
      WITH CRIMP TERMINAL, 50394 SERIES.
   b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.

PDR S-001249-00-00
EC NO: S2006-1047
DRWN:YLOIAO 2006/04/24
CHKD:MLONG 2006/04/26
APPR:PTLIM 2006/04/26
DESCRIPTION
REV
A7

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.2	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM ONLY
SCALE	NTS
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY	ATSEE
DATE	2003/10/23
CHECKED BY	KCLING
DATE	2003/11/07
APPROVED BY	SKTOH
DATE	2003/11/07
MATERIAL NO.	SEE TABLE
TITLE	MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A
	MOLEX INCORPORATED
DOCUMENT NO.	SD-87833-010
SHEET NO.	1 OF 2
SIZE	A3

PLS REFER TO PART 87833-**3* FOR CENTER LOCKING SLOT OPTION.

PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION A	B	C	D	E	F
87833-042*	4	-	6.65	2.00	5.00	4.85	——	
87833-062*	6	-	8.65	4.00	7.00	6.85	——	
87833-082*	8	-	10.65	6.00	9.00	8.85	——	
87833-102*	10	-	12.65	8.00	11.00	10.85	——	
87833-122*	12	-	14.65	10.00	13.00	12.85	——	
87833-142*	14	-	16.65	12.00	15.00	14.85	8.00	
87833-162*	16	-	18.65	14.00	17.00	16.85	10.00	
87833-182*	18	-	20.65	16.00	19.00	18.85	12.00	
87833-202*	20	-	22.65	18.00	21.00	20.85	14.00	
87833-222*	22	-	24.65	20.00	23.00	22.85	16.00	
87833-242*	24	-	26.65	22.00	25.00	24.85	18.00	
87833-262*	26	-	28.65	24.00	27.00	26.85	20.00	
87833-282*	28	-	30.65	26.00	29.00	28.85	22.00	2.16
87833-302*	30	-	32.65	28.00	31.00	30.85	24.00	
87833-322*	32	-	34.65	30.00	33.00	32.85	26.00	
87833-342*	34	-	36.65	32.00	35.00	34.85	28.00	
87833-362*	36	-	38.65	34.00	37.00	36.85	30.00	
87833-382*	38	-	40.65	36.00	39.00	38.85	32.00	
87833-402*	40	-	42.65	38.00	41.00	40.85	34.00	
87833-422*	42	-	44.65	40.00	43.00	42.85	36.00	
87833-442*	44	-	46.65	42.00	45.00	44.85	38.00	
87833-462*	46	-	48.65	44.00	47.00	46.85	40.00	
87833-482*	48	-	50.65	46.00	49.00	48.85	42.00	
87833-502*	50	-	52.65	48.00	51.00	50.85	44.00	
87833-5121	26	13	28.65	24.00	27.00	26.85	20.00	
87833-5120	10	7	12.65	8.00	11.00	10.85	——	
87833-5520	40	21	42.65	38.00	41.00	40.85	34.00	
87833-5620	20	14	22.65	18.00	21.00	20.85	14.00	
87833-5720	24	13	26.65	22.00	25.00	24.85	18.00	
87833-5320	14	-	16.65	12.00	15.00	14.85	8.00	3.18
87833-5420	34	-	36.65	32.00	35.00	34.85	28.00	

PART NUMBER LEGEND :
87833 - * * * *

PLATING OPTIONS:
20 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
21 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

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DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: ATSEE DATE: 2003/10/23
CHECKED BY: KCLING DATE: 2003/11/07
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MATERIAL NO.: SEE TABLE

TITLE: MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A

MOLEX INCORPORATED

DOCUMENT NO.: SD-87833-010
SHEET NO.: 2 OF 2
SIZE: A3