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Jameco Part Number 803786



# 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

REVISION: <b>2</b>	ECR/ECN INFORMATION: <u>EC No:</u> <b>S2005-0213</b> <u>DATE:</u> <b>2004/09/02</b>	TITLE: <b>MILLIGRID 2MM DUAL ROW SHROUDED HEADERS</b>	SHEET No. <b>1 of 3</b>
DOCUMENT NUMBER: <b>PS-87831-027</b>	CREATED / REVISED BY: <b>AI TING 2004/09/21</b>	CHECKED BY: <b>KC LING 2004/09/21</b>	APPROVED BY: <b>SK TOH 2004/09/21</b>
TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A4](V.1).DOC			



# PRODUCT SPECIFICATION

## 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	<b>Insulation Resistance</b>	Apply 500 VDC for 1 minute per MIL-STD-1344A, METHOD 3003.1	<b>1000</b> Megaohms minimum
2	<b>Dielectric Strength</b>	1000 Vrms for 1 minute between adjacent terminals.	No breakdown

### 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	<b>Pin/ Terminal Retention Force (in Housing)</b>	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)

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## 5.3 ENVIRONMENT REQUIREMENTS

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

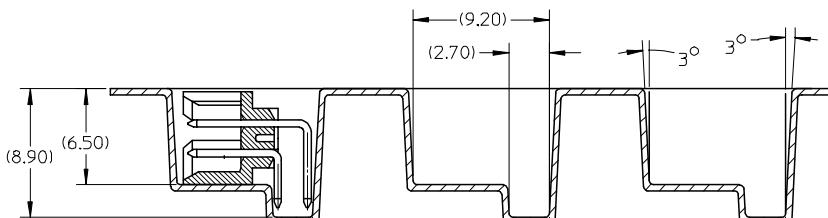
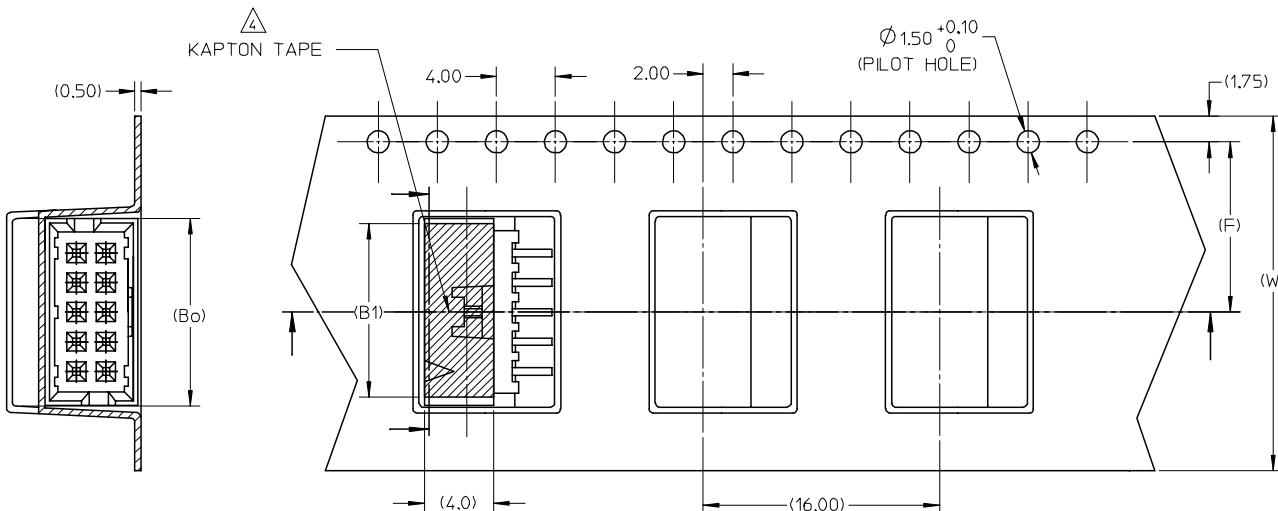
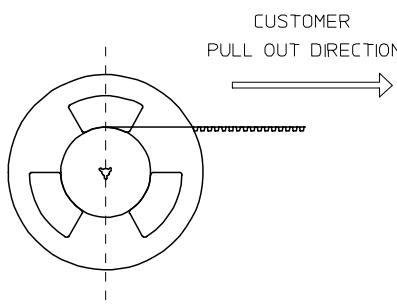
## 6.0 Packaging

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

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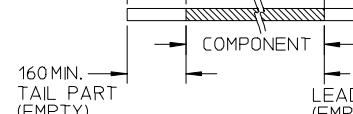
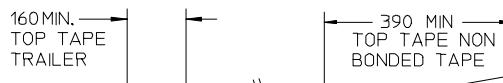
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<img alt="Front view of the header assembly showing the crimped contacts and solder tail area.																																																																																																																																																																																																	

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ASSEMBLY P/N PACKED IN T&R (WITH KAPTON)				CKT SIZE	(F)	(Bo)	(B1)	(W)	
87833-0451	04	7.50	7.00						16.00
87833-0651	06	11.50	9.00						24.00
87833-1051	10	11.50	13.00						24.00

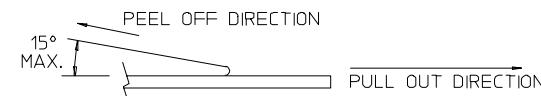


NOTES:

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.

4. KAPTON TAPE SHOULD BE LOCATED AS CENTRAL  
OF PART AS POSSIBLE AND MUST COVER THE WINDOWS.

5. TAPE & REEL QUANTITY : 400 PCS/REEL

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DRAWN BY ATSEE	DATE 2003/10/23	TITLE MGRID, SHROUDED HEADER W/LOCKING FEATURE, R/A
	mm	INCH			
▽=0	4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2003/11/07
▽=0	3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2003/11/07
▽=0	2 PLACES	± 0.2	± ---		
▽=0	1 PLACE	± ---	± ---		
▽=0	ANGULAR ± 3°				
▽=0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE	MATERIAL NO. SD-87833-011	DOCUMENT NO. SD-87833-011
▽=0			SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

REVISED  
EC NO: S2007-0136  
DRWNSKANG  
CH'KDM:LONG  
APPR:SK10H  
REV  
A9