

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0874272042](#)  
**Status:** **Active**  
**Overview:** [minifit\\_jr](#)  
**Description:** 4.20mm (.165") Mini-Fit Jr.™ Header, Vertical, Nylon, without Flange, 20Circuits, Tin (Sn) over Nickel (Ni) Plating, Glow Wire Compatible

**Documents:**

[3D Model](#) [Product Specification PS-87427-0001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

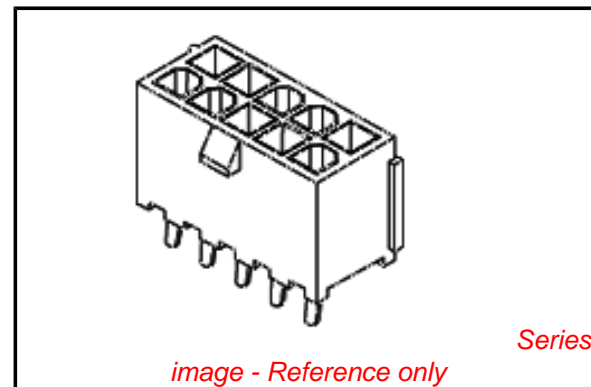
**General**

Product Family PCB Headers  
 Series [87427](#)  
 Application Wire-to-Board  
 Comments Current = 13A max. per circuit when header is mated to a receptacle loaded with [45750](#) Mini-Fit Plus HCS™ Crimp Terminal Crimped to to 16 AWG wire. . See Molex product specification PS-45750-001 for additional current de-rating information.

Overview [minifit\\_jr](#)  
 Product Name Mini-Fit Jr.™

**Physical**

Breakaway No  
 Circuits (Loaded) 20  
 Color - Resin Beige  
 Durability (mating cycles max) 30  
 First Mate / Last Break No  
 Flammability 94V-0  
 Glow-Wire Compliant Yes  
 Lock to Mating Part Yes  
 Material - Metal Brass  
 Material - Plating Mating Tin  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Vertical  
 PC Tail Length (in) 0.130 In  
 PC Tail Length (mm) 3.30 mm  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.165 In  
 Pitch - Mating Interface (mm) 4.20 mm  
 Pitch - Term. Interface (in) 0.165 In  
 Pitch - Term. Interface (mm) 4.20 mm  
 Plating min: Mating (µin) 101.6  
 Plating min: Mating (µm) 2.54  
 Plating min: Termination (µin) 101.6  
 Plating min: Termination (µm) 2.54



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free Status**

**China RoHS**



**Not Halogen-Free**

**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto: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**

[87427Series](#)

**Mates With**

[5557](#) Mini-Fit Jr.™ Receptacle Housing

Polarized to Mating Part	Yes
Polarized to PCB	No
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	No
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

### **Electrical**

Current - Maximum per Contact	13A
Voltage - Maximum	600V

### **Solder Process Data**

Duration at Max. Process Temperature (seconds)	30
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	2
Process Temperature max. C	240

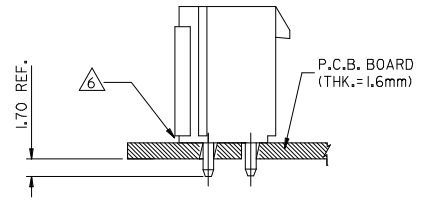
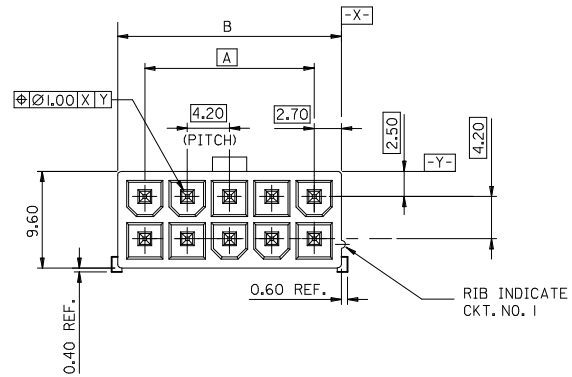
### **Material Info**

#### **Reference - Drawing Numbers**

Packaging Specification	PK-87427-004
Product Specification	PS-87427-0001
Sales Drawing	SD-87427-***4*

This document was generated on 05/31/2010

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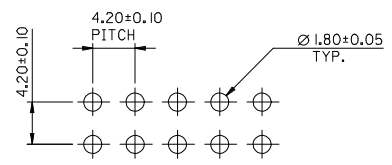
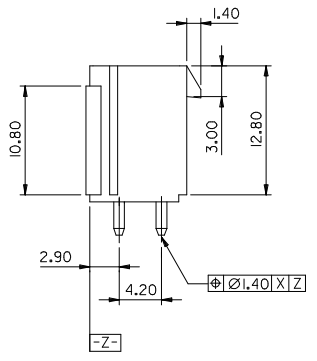
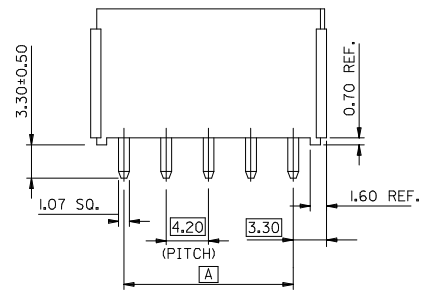
**RECOMMENDED INSTALLATION PATTERN**

**LEGEND**

87427-\*\*\*4\*  
 CKT. SIZE — PLATING OPTIONS  
 2 = NOTE 2  
 3 = NOTE 3  
 8 = NOTE 8

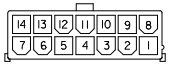
**NOTES**

- MATERIAL - HOUSING : NYLON 46, UL94V-0, COLOR BEIGE  
 PIN : BRASS (1.07 SQUARE)
- PLATING OF PIN  
 TIN 2.54um MIN. OVER NICKEL 1.27um MIN.
- PLATING OF PIN  
 TIN 4-10um OVER COPPER 2-8um.
- PLATING OF PIN  
 GOLD 0.76um MIN. OVER NICKEL 1.27um MIN.
- PLATING OF PIN  
 TIN 2.54um MIN. OVER NICKEL 1.27um MIN. WITH MATT FINISH
- HOUSING STANDOFF (0.70 mm REF.)
- PART NUMBERS 36633-0025 TO 36633-0029 & 36633-0033 TO 36633-0039 INCLUDED AS SHOWN IN TABLE 'X'.

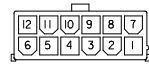


**RECOMMENDED P.C.B.LAYOUT**

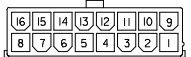
<b>ENTER DESCRIPTION</b> EC NO: I2009-0573 DRWN:HR01 2009/11/11 CHKD:KPRASAD 2009/11/12 APPR:KPRASAD 2009/11/13 REV D	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± ---°	DRAWN BY SAM.C CHECKED BY APPROVED BY	DATE 960401 DATE DATE	TITLE 4.2MM W-T-B HIGH TEMP VERT. HEADER W/O FLANGES		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE SHEET 2	DOCUMENT NO. SD-87427-***4*	MOLEX INCORPORATED		
			SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



CKT. SIZE 14



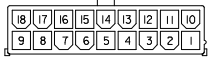
CKT. SIZE 12



CKT. SIZE 16



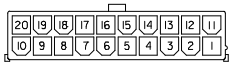
CKT. SIZE 10



CKT. SIZE 18



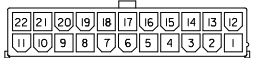
CKT. SIZE 8



CKT. SIZE 20



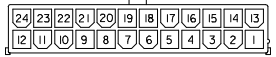
CKT. SIZE 6



CKT. SIZE 22



CKT. SIZE 4



CKT. SIZE 24



CKT. SIZE 2

SEE NOTE  $\Delta$  ON SHEET 1 FOR PLATING DETAILS

51.60±0.55	46.20	36633-0029	24	
47.40±0.55	42.00	36633-0028	22	
43.20±0.50	37.80	36633-0027	20	
39.00±0.45	33.60	36633-0039	18	
34.80±0.35	29.40	36633-0026	16	
30.60±0.30	25.20	36633-0038	14	
26.40±0.30	21.00	36633-0037	12	
22.20±0.30	16.80	36633-0025	10	
18.00±0.30	12.60	36633-0036	8	
13.80±0.25	8.40	36633-0035	6	
9.60±0.25	4.20	36633-0034	4	
5.40±0.20	--	36633-0033	2	
PIN	B	A	ENG. NO.	CKT. SIZE

TABLE 'X'

51.60±0.55	46.20	87427-244*	24
47.40±0.55	42.00	87427-224*	22
43.20±0.50	37.80	87427-204*	20
39.00±0.45	33.60	87427-184*	18
34.80±0.35	29.40	87427-164*	16
30.60±0.30	25.20	87427-144*	14
26.40±0.30	21.00	87427-124*	12
22.20±0.30	16.80	87427-104*	10
18.00±0.30	12.60	87427-084*	8
13.80±0.25	8.40	87427-064*	6
9.60±0.25	4.20	87427-044*	4
5.40±0.20	--	87427-024*	2
B	A	ENG. NO.	CKT. SIZE

<b>ENTER DESCRIPTION</b> EC NO: I2009-0573 DRWN: HMR01 2009/11/11 CHKD: KPRASAD 2009/11/12 APPR: KPRASAD 2009/11/13	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± ---°	mm INCH ± --- ± --- ± 0.20 ± --- ± --- ± ---	DRAWN BY SAM.C	DATE 960415	TITLE <b>4.2MM W-T-B HIGH TEMP VERT. HEADER W/O FLANGES</b>			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY	DATE	MOLEX INCORPORATED			
				MATERIAL NO. <b>SEE CHART</b>	DATE	DOCUMENT NO. <b>SD-87427-***4*</b>	SHEET NO. <b>2 OF 2</b>		

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