

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

**Part Number:** [0440680277](#)  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit BMI™ Surface Mount Compatible Header, Dual Row, Vertical, 4 Circuits, 6.35mm (.250") PCB Thickness, with Snap-In Metal Pins, PA Polyamide Nylon 4/6, UL 94V-0, with Gold (Au) Over Nickel (Ni) Plating

**Documents:**

[3D Model](#) [Product Specification PS-43810-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

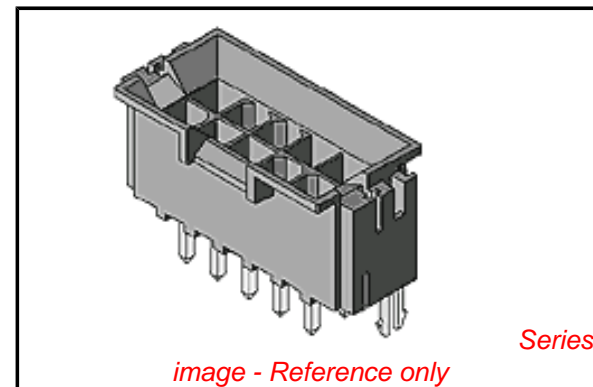
CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [44068](#)  
 Application Board-to-Board, 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.  
 Product Name Mini-Fit BMI™

**Physical**

Breakaway No  
 Circuits (Loaded) 4  
 Circuits (maximum) 4  
 Color - Resin Black  
 Durability (mating cycles max) 30  
 First Mate / Last Break No  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Keying to Mating Part None  
 Lock to Mating Part Yes  
 Material - Metal Brass  
 Material - Plating Mating Gold  
 Material - Plating Termination Gold  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 2  
 Orientation Vertical  
 PC Tail Length (in) 0.335 In  
 PC Tail Length (mm) 8.50 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.250 In  
 PCB Thickness Recommended (mm) 6.30 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.165 In  
 Pitch - Mating Interface (mm) 4.20 mm  
 Plating min: Mating (µin) 30.4  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 30.4  
 Plating min: Termination (µm) 0.76



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free**  
**Status Not Reviewed**

**China RoHS**



**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**

[44068Series](#)

**Mates With**

[15-06-0041](#) Mini-Fit BMI™ Panel Mount Receptacle, [39-01-2045](#) Mini-Fit Jr.™ Receptacle, [15-24-7043](#) Mini-Fit BMI™ Receptacle Header

Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
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)	3
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	235

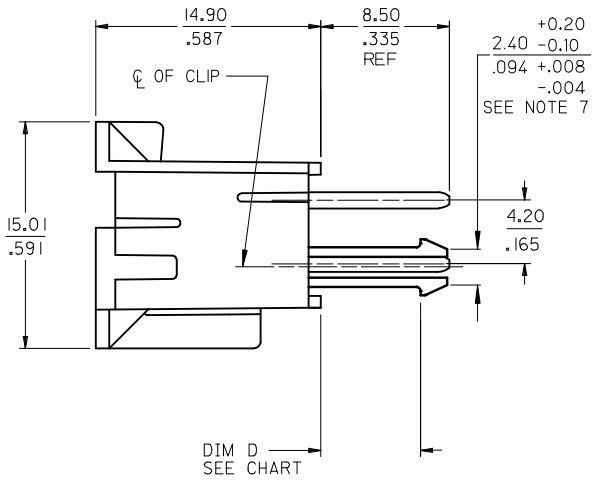
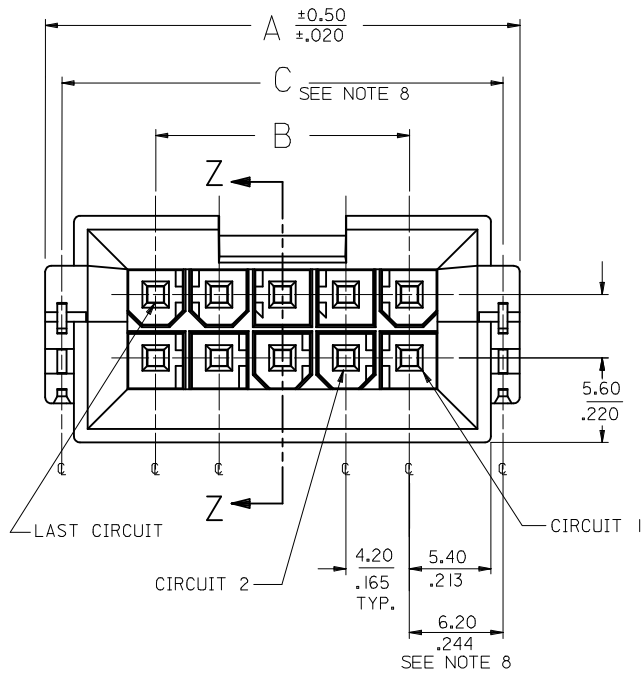
### **Material Info**

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

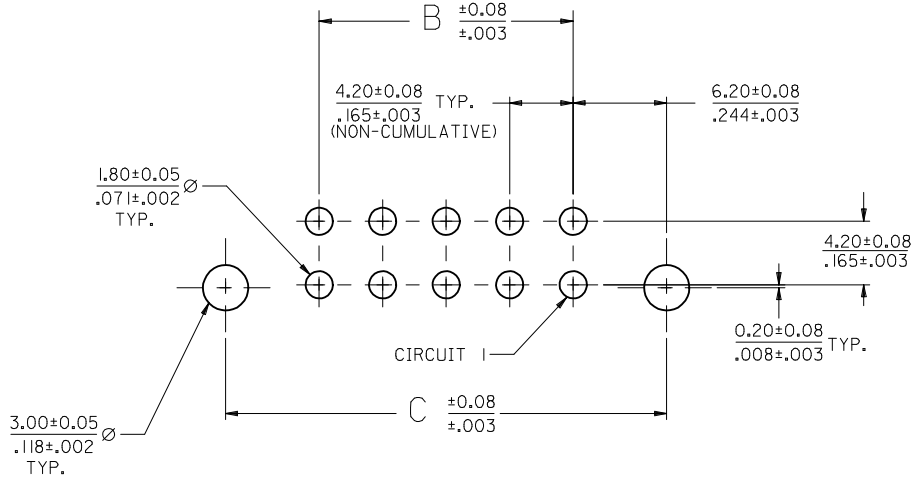
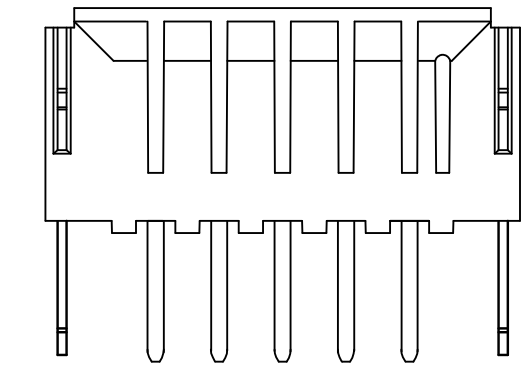
Packaging Specification	PK-43879-002
Product Specification	PS-43810-001
Sales Drawing	SD-44068-061
Test Summary	TS-43810-001

This document was generated on 05/14/2010

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- NOTES:
- MATERIALS:  
HOUSING: PA46 FILLED BLACK, UL94V-0  
TERMINAL: BRASS  
BOARD RETENTION CLIP: BRASS
  - FINISHES:  
1 = 0.00254/(.000100) MIN TIN OVER NICKEL  
2 = 0.00076/(.000030) MIN GOLD OVER NICKEL
  - PRODUCT SPECIFICATIONS: PS-43810-001
  - PACKAGING SPECIFICATION: PK-43879-002
  - PART MATES WITH MOLEX RECEPTACLE #5557 AND #42474, AND #42385 HEADER.
  - PART ALLOWS FOR 1.27/.050 MAX. MIS-ALIGNMENT WITH MATING HOUSINGS IN ANY DIRECTION.
  - CONNECTOR ASSEMBLIES ARE NOT TO BE MATED AND UNMATED WHILE CIRCUITS ARE LIVE.
  - THIS DIMENSION DOES NOT APPLY TO PARTS WITHOUT P.C. BOARD RETENTION CLIPS.
  - THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.



CKTS	DIM. "A"	DIM. "B"	DIM. "C"
4	18.81 ±.740	4.20 ±.165	16.60 ±.653
6	23.01 ±.906	8.40 ±.331	20.80 ±.819
8	27.21 ±1.071	12.60 ±.496	25.00 ±.984
10	31.41 ±1.237	16.80 ±.661	29.20 ±1.150
12	35.61 ±1.402	21.00 ±.828	33.40 ±1.315
14	39.81 ±1.567	25.20 ±.992	37.60 ±1.480
16	44.01 ±1.733	29.40 ±1.157	41.80 ±1.646
18	48.21 ±1.898	33.60 ±1.323	46.00 ±1.811
20	52.41 ±2.063	37.80 ±1.488	50.20 ±1.976
22	56.61 ±2.229	42.00 ±1.654	54.40 ±2.142
24	60.81 ±2.394	46.20 ±1.819	58.60 ±2.307

PCB LAYOUT: COMPONENT SIDE  
RECOMMENDED PCB THICKNESS: SEE CHART

<b>CORRECTED NOTE #2</b> EC NO: UCP2009-4772 DRAWN: RBENES 2009/01/22 CHKD: 2009/01/23 APPR: FSMITH 2009/01/26	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>±.010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>±.014</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.35</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	±.010	2 PLACES	± 0.25	±.014	1 PLACE	± 0.35	± ---	DIMENSION STYLE <b>MM/IN</b>	SCALE <b>1:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
		mm	INCH																		
	4 PLACES	± ---	± ---																		
	3 PLACES	± ---	±.010																		
2 PLACES	± 0.25	±.014																			
1 PLACE	± 0.35	± ---																			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. <b>SEE SHEET 2</b>	DOCUMENT NO. <b>SD-44068-061</b>	SHEET NO. <b>1 OF 2</b>	<b>MOLEX INCORPORATED</b>																	
SIZE <b>C</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				

FINISH:	1 (SEE NOTE 2)
DIM. D:	WITHOUT CLIP
PCB THICKNESS:	$\frac{(6.35 \pm 0.18)}{.250 \pm .007}$
CIRCUITS	MATERIAL NO.
04	44068-0244
06	44068-0245
08	X 44068-0246
10	44068-0247
12	X 44068-0248
14	44068-0249
16	X 44068-0250
18	44068-0251
20	X 44068-0252
22	X 44068-0253
24	44068-0254

FINISH:	1 (SEE NOTE 2)
DIM. D:	$\frac{(6.60 \pm 0.25)}{.260 \pm .010}$
PCB THICKNESS:	$\frac{(6.35 \pm 0.18)}{.250 \pm .007}$
CIRCUITS	MATERIAL NO.
04	44068-0266
06	44068-0267
08	X 44068-0268
10	44068-0269
12	X 44068-0270
14	44068-0271
16	X 44068-0272
18	44068-0273
20	X 44068-0274
22	X 44068-0275
24	44068-0276

FINISH:	2 (SEE NOTE 2)
DIM. D:	WITHOUT CLIP
PCB THICKNESS:	$\frac{(6.35 \pm 0.18)}{.250 \pm .007}$
CIRCUITS	MATERIAL NO.
04	44068-0255
06	44068-0256
08	X 44068-0257
10	44068-0258
12	X 44068-0259
14	44068-0260
16	X 44068-0261
18	44068-0262
20	X 44068-0263
22	X 44068-0264
24	44068-0265

FINISH:	2 (SEE NOTE 2)
DIM. D:	$\frac{(6.60 \pm 0.25)}{.260 \pm .010}$
PCB THICKNESS:	$\frac{(6.35 \pm 0.18)}{.250 \pm .007}$
CIRCUITS	MATERIAL NO.
04	44068-0277
06	44068-0278
08	X 44068-0279
10	44068-0280
12	X 44068-0281
14	44068-0282
16	X 44068-0283
18	44068-0284
20	X 44068-0285
22	X 44068-0286
24	44068-0287

X PRECEDING PART NUMBER DESIGNATES  
CIRCUIT SIZE IS NOT TOOLED  
PLEASE CONTACT FACTORY

<b>SEE SHEET 1</b> EC NO: UCP2009-1250 DRWN: KLOSTEMEIER 2008/11/21 CHKD: J.BELL 2008/11/24 APPR: F.S.MITH 2008/11/24	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>± .010</td></tr> <tr><td>2 PLACES</td><td>± 0.25</td><td>± .014</td></tr> <tr><td>1 PLACE</td><td>± 0.35</td><td>± .---</td></tr> </table>		mm	INCH	4 PLACES	± .---	± .---	3 PLACES	± .---	± .010	2 PLACES	± 0.25	± .014	1 PLACE	± 0.35	± .---	DIMENSION STYLE <b>MM/IN</b> DRAWN BY: JIWANG DATE: 2000/07/27 CHECKED BY: BANDURA DATE: 2000/07/27 APPROVED BY: EDGLEY DATE: 2000/07/27	SCALE <b>1:1</b> DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. <b>SEE CHART</b>	TITLE <b>MINI-FIT JR BMI SMC          VERTICAL HEADER ASM          FOR 6.35/.250 THK PCB</b>	<b>MOLEX INCORPORATED</b>	DOCUMENT NO. <b>SD-44068-061</b>															
SIZE 	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																			
SHEET NO. <b>2 OF 2</b>																				