

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

**Part Number:** **0444720456**  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit HCS™ Header, Dual Row, Vertical, without Snap-in Plastic Peg PCB Lock, 4 Circuits, PA Polyamide Nylon 6/6 94V-2, with Drain Holes

**Documents:**

[3D Model](#)  
[Drawing \(PDF\)](#)  
[Packaging Specification \(PDF\)](#)  
[Product Specification PS-44476-001 \(PDF\)](#)  
[RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

UL E29179

**General**

Product Family PCB Headers  
 Series [44472](#)  
 Application Wire-to-Board  
 Comments Square Pin|Solder Type  
 Product Name Mini-Fit HCS™

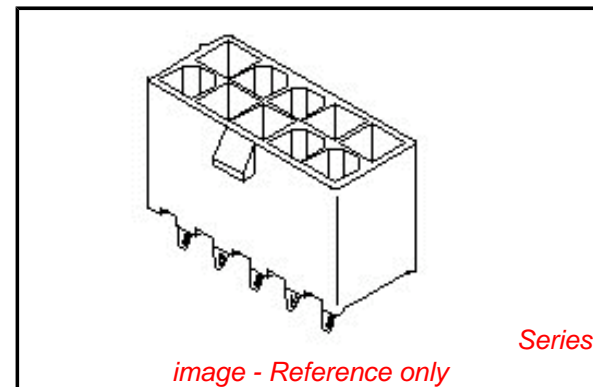
**Physical**

Breakaway No  
 Circuits (Loaded) 4  
 Circuits (maximum) 4  
 Color - Resin Natural  
 Durability (mating cycles max) 30  
 Flammability 94V-2  
 Glow-Wire Compliant No  
 Material - Metal High Performance Alloy (HPA)  
 Material - Plating Mating Tin  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Vertical  
 PCB Locator Yes  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.070 In  
 PCB Thickness Recommended (mm) 1.80 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.165 In  
 Pitch - Mating 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  
 Polarized to PCB Yes  
 Shrouded Partial  
 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 11A  
 Voltage - Maximum 600V

**Solder Process Data**



**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](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**

[44472Series](#)

**Mates With**

[5557d](#)

Duration at Max. Process Temperature (seconds)	5
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

### **Material Info**

### **Reference - Drawing Numbers**

Product Specification	PS-44476-001, RPS-44476-001
Sales Drawing	SDA-44472-****

This document was generated on 04/27/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

CKT SIZE	DIM A	DIM B
4	.709 (18.00)	.496 (12.60)
5	.874 (22.20)	.661 (16.80)
6	1.039 (26.40)	.827 (21.00)
7	1.205 (30.60)	.992 (25.20)
8	1.370 (34.80)	1.157 (29.40)
9	1.535 (39.00)	1.323 (33.60)
10	1.701 (43.20)	1.488 (37.80)
11	1.866 (47.40)	1.654 (42.00)
12	2.031 (51.60)	1.819 (46.20)



- NOTES:
- MATERIALS:  
HOUSING:  
\*1\*=NYLON 6/6, UL94 V-2, COLOR: NATURAL  
\*2\*=NYLON 6/6, UL94 V-0, COLOR: NATURAL  
\*3\*=NYLON 6/6, UL94 V-2, COLOR: BLACK  
TERMINALS:  
COPPER ALLOY
  - TERMINAL PLATING:  
\*1\*=.000100/(0.00254) MIN. BRIGHT TIN OVER  
.000050/(0.00127) MIN. NICKEL  
\*2\*=.000030/(0.00076) MIN. SELECT GOLD AND  
.000100/(0.00254) MIN. SELECT MATTE TIN  
OVER .000050/(0.00127) MIN. NICKEL OVERALL  
\*3\*=.000100/(0.00254) MIN. MATTE TIN OVER  
.000050/(0.00127) MIN. NICKEL  
\*THE PRIMARY SHIPPING CARTON WILL BE LABELED  
"ELV AND RoHS COMPLIANT"; CARTONS WITHOUT THIS  
LABEL MAY CONTAIN PRODUCT WITH TIN-LEAD PLATING.
  - PRODUCT SPECIFICATION: PS-44476-001
  - PACKAGING: SEE CHARTS
  - PART MATES WITH MINI-FIT JR. RECEPTACLE NO. 5557.
  - PART IS NOT DESIGNED FOR CURRENT SHARING.
  - PARTS ARE NOT TO BE MATED OR UN-MATED WHILE  
CIRCUITS ARE LIVE.
  - 44472-2470 ONLY FOR WIDER LOCKING RAMP.
  - PARTS PRODUCED AFTER JULY 1, 2004 WILL HAVE "HCS"  
MARKING INSTEAD OF BLACK STRIPE.
  - SEE CHART FOR PARTS WITH PEGS REMOVED.
  - PART CONFORMS TO CLASS 'B' REQUIREMENTS OF  
COSMETIC SPECIFICATION PS-45499-002.



10	L
9	L
8	L
7	L
6	L
5	L
4	L
3	L
2	L
1	L
SHT	REV

LEGEND:  
 44472 - \*\* \*\*  
 CIRCUIT SIZE (04-12 FOR SINGLE ROW)  
 (02-24 FOR DUAL ROW)  
 ASSEMBLY VERSION (01 THRU 49 FOR SINGLE ROW)  
 (50 THRU 99 FOR DUAL ROW)

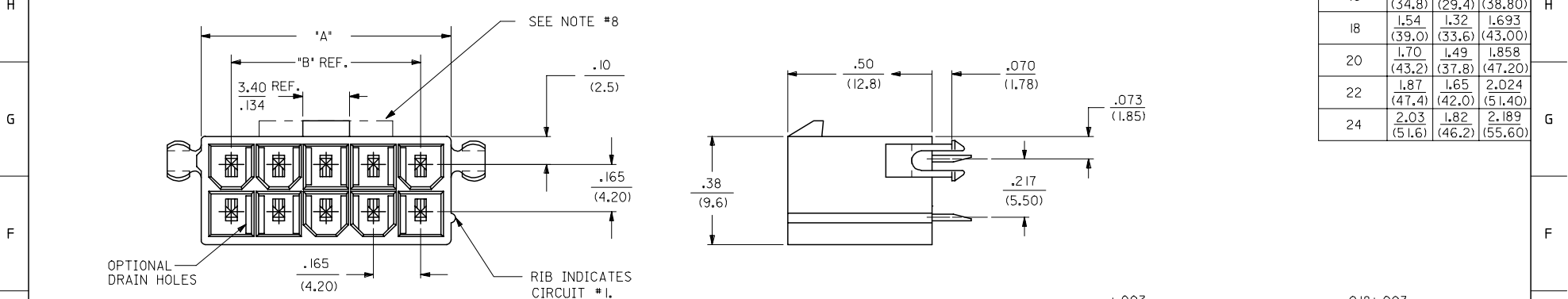
SEE SHT. 2 FOR DUAL ROW  
 \* THE CHART FOR SINGLE ROW PRODUCT IS ON PAGE 7

STANDARDIZE NOTES EC NO: UCP2008-0153 2007/09/26 DRW:NLSCHMIDT 2007/09/26 CHKD:ADERR 2007/09/26 APPR:FSM TH	QUALITY SYMBOLS =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE IN/MM		SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± .015 2 PLACES ± 0.38 ± .020 1 PLACE ± 0.50 ± --- ANGULAR ±1/2°	DRAWN BY GEP	DATE 1994/07/25	TITLE MINI-FIT VERT HDR ASSY W & W/O PEGS/DRAIN HOLES SINGLE AND DUAL ROW	MATERIAL NO.	DOCUMENT NO. SDA-44472-****
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHARTS		MOLEX INCORPORATED			
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

13 12 11 10 9 8 7 6 5 4 3 2 1



CIRCUIT SIZE	DIM. 'A'	DIM. 'B'	DIM. 'C'
2	.21 (5.4)	—	.370 (9.40)
4	.38 (9.6)	.17 (4.2)	.535 (13.60)
6	.54 (13.8)	.33 (8.4)	.701 (17.80)
8	.71 (18.0)	.50 (12.6)	.866 (22.00)
10	.87 (22.2)	.66 (16.8)	1.031 (26.20)
12	1.04 (26.4)	.83 (21.0)	1.197 (30.40)
14	1.20 (30.6)	.99 (25.2)	1.362 (34.60)
16	1.37 (34.8)	1.16 (29.4)	1.528 (38.80)
18	1.54 (39.0)	1.32 (33.6)	1.693 (43.00)
20	1.70 (43.2)	1.49 (37.8)	1.858 (47.20)
22	1.87 (47.4)	1.65 (42.0)	2.024 (51.40)
24	2.03 (51.6)	1.82 (46.2)	2.189 (55.60)



RECOMMENDED HOLE LAYOUT FOR .070/(1.78) MAX. THICK P. C. BOARD  
VIEWED FROM COMPONENT SIDE



SEE SHT. I FOR SINGLE ROW

<b>STANDARDIZE NOTES</b> EC NO: UCP2008-0153 DRAWN: LSCHMI DT 2007/09/26 CHKD: ADERR 2007/09/26 APPR: FSM TH 2007/09/26	<b>QUALITY SYMBOLS</b> 	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> IN/MM		SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES ± ---	± ---	GEP	1994/07/26	MINI-FIT VERT HDR ASSY W & W/O PEGS/DRAIN HOLES SINGLE AND DUAL ROW			
		3 PLACES ± ---	± .015	CHECKED BY	DATE	MOLEX INCORPORATED			
2 PLACES ± 0.38	± .020	RJF	1994/07/26	MATERIAL NO.		DOCUMENT NO.	SHEET NO.		
1 PLACE ± 0.50	± ---	APPROVED BY	DATE	SEE CHARTS		SDA-44472-****		2 OF 10	
ANGULAR ±1/2°		RJF	1994/07/26	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

13 12 11 10 9 8 7 6 5 4 3 2 1

J	PLATING:	1 (SEE NOTE 2)			PLATING:	1 (SEE NOTE 2)			PLATING:	1 (SEE NOTE 2)			PIN NO.:		
	DRAINS:	WITH DRAIN HOLES			DRAINS:	WITH DRAIN HOLES			DRAINS:	WITH DRAIN HOLES			DRAINS:		
	PEGS:	WITHOUT PEGS			PEGS:	WITHOUT PEGS			PEGS:	WITH PEGS			PEGS:		
	MAT'L:	94V-2 [NATURAL]			MAT'L:	94V-0 [NATURAL]			MAT'L:	94V-2 [BLACK]			MAT'L:		
	PACKAGING:	PK-44472-001			PACKAGING:	PK-44472-001			PACKAGING:	PK-44472-001			PACKAGING:		
I	ITEM NO.		CKTS	ITEM NO.		CKTS	ITEM NO.		CKTS	ITEM NO.		CKTS	ITEM NO.		CKTS
	44472-0256		2	44472-0257		2	44472-0258		2	-		-	-		
	44472-0456		4	44472-0457		4	44472-0458		4	-		-	-		
	44472-0656		6	44472-0657		6	44472-0658		6	-		-	-		
	44472-0856		8	44472-0857		8	44472-0858		8	-		-	-		
	44472-1056		10	44472-1057		10	44472-1058		10	-		-	-		
	44472-1256		12	44472-1257		12	44472-1258		12	-		-	-		
	44472-1456		14	44472-1457		14	44472-1458		14	-		-	-		
	44472-1656		16	44472-1657		16	44472-1658		16	-		-	-		
	44472-1856		18	44472-1857		18	44472-1858		18	-		-	-		
44472-2056		20	44472-2057		20	44472-2058		20	-		-	-			
H	44472-2256		22	44472-2257		22	44472-2258		22	-		-	-		
	44472-2456		24	44472-2457		24	44472-2458		24	-		-	-		

G	PIN NO.:		PIN NO.:			
	PLATING:		PLATING:			
	DRAINS:		DRAINS:			
	PEGS:		PEGS:			
	MAT'L:		MAT'L:			
PACKAGING:		PACKAGING:				
F	ITEM NO.		CKTS	ITEM NO.		CKTS
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A	B	C	D	E	F	G	H	I	J	<p>PLATING REFERENCE          EC NO: UCP2008-0153          DRAWNLSCHMIDT 2007/09/26          CHKD:ADERR 2007/09/26          APPR:FSM TH 2007/09/26</p>	<p>QUALITY SYMBOLS   = 0   = 0</p>	<p>GENERAL TOLERANCES (UNLESS SPECIFIED)</p> <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0004</td> </tr> <tr> <td>3 PLACES</td> <td>± .003</td> <td>± .0002</td> </tr> <tr> <td>2 PLACES</td> <td>± .002</td> <td>± .0001</td> </tr> <tr> <td>1 PLACE</td> <td>± .001</td> <td>± .00005</td> </tr> <tr> <td colspan="3">ANGULAR ± .005°</td> </tr> </table>		mm	INCH	4 PLACES	± .005	± .0004	3 PLACES	± .003	± .0002	2 PLACES	± .002	± .0001	1 PLACE	± .001	± .00005	ANGULAR ± .005°			<p>DIMENSION STYLE IN/MM</p> <table border="1"> <tr> <th>DRAWN BY</th> <th>DATE</th> </tr> <tr> <td>LEM</td> <td>1999/02/22</td> </tr> <tr> <th>CHECKED BY</th> <th>DATE</th> </tr> <tr> <td>MAB</td> <td>1999/02/22</td> </tr> <tr> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>RRE</td> <td>1999/02/22</td> </tr> </table>	DRAWN BY	DATE	LEM	1999/02/22	CHECKED BY	DATE	MAB	1999/02/22	APPROVED BY	DATE	RRE	1999/02/22	<p>SCALE ---</p>	<p>DESIGN UNITS METRIC</p>	<p>THIRD ANGLE PROJECTION</p>	<p>TITLE MINI-FIT VERT HDR ASSY W &amp; W/O PEGS/DRAIN HOLES SINGLE AND DUAL ROW</p>	<p>MATERIAL NO. SEE CHART</p>	<p>DOCUMENT NO. SDA-44472-****</p>	<p>SHEET NO. 4 OF 10</p>
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