

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

**Part Number:** **0444721256**  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit HCS™ Header, Dual Row, Vertical, without Snap-in Plastic Peg PCB Lock, 12 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**

CSA LR19980  
 UL E29179

**General**

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

**Physical**

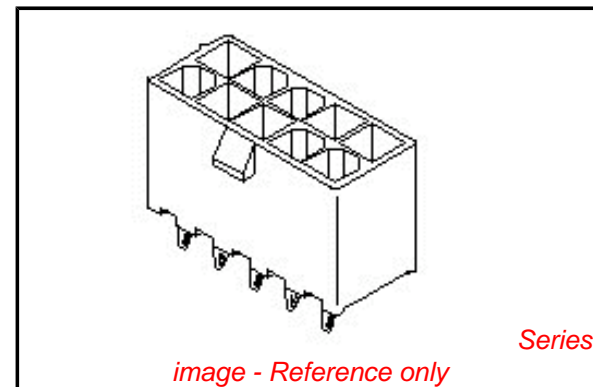
Breakaway No  
 Circuits (Loaded) 12  
 Circuits (maximum) 12  
 Durability (mating cycles max) 30  
 Flammability 94V-2  
 Glow-Wire Compliant No  
 Material - Plating Mating Tin  
 Material - Plating Termination Tin  
 Number of Rows 2  
 Orientation Vertical  
 PCB Locator Yes  
 PCB Retention None  
 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) 100  
 Plating min: Mating (µm) 2.50  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.50  
 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**

Duration at Max. Process Temperature (seconds) 5  
 Lead-free Process Capability Wave Capable (TH only)



*image - Reference only*

**EU RoHS**

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

**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](#)

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 04/26/2010

**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
  - 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)

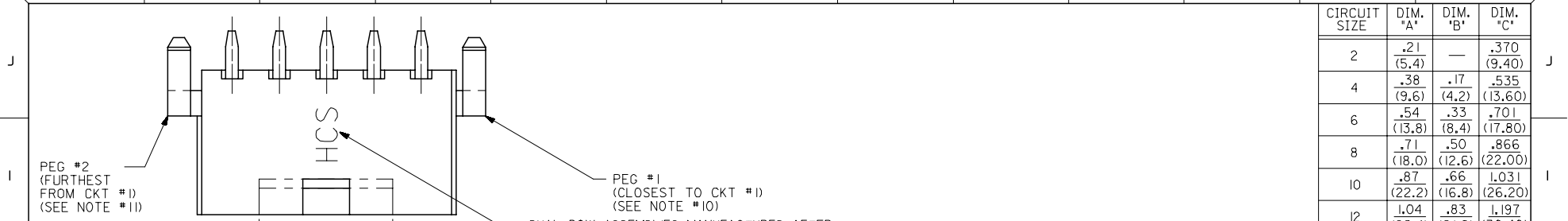
ASSEMBLY VERSION (01 THRU 49 FOR SINGLE ROW) (50 THRU 99 FOR DUAL ROW)

SEE SHT. 2 FOR DUAL ROW

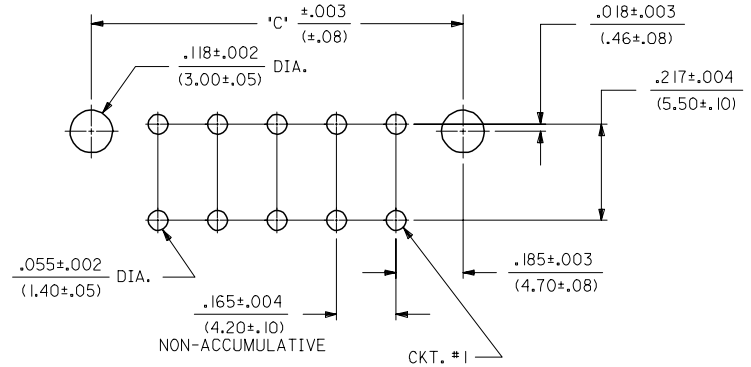
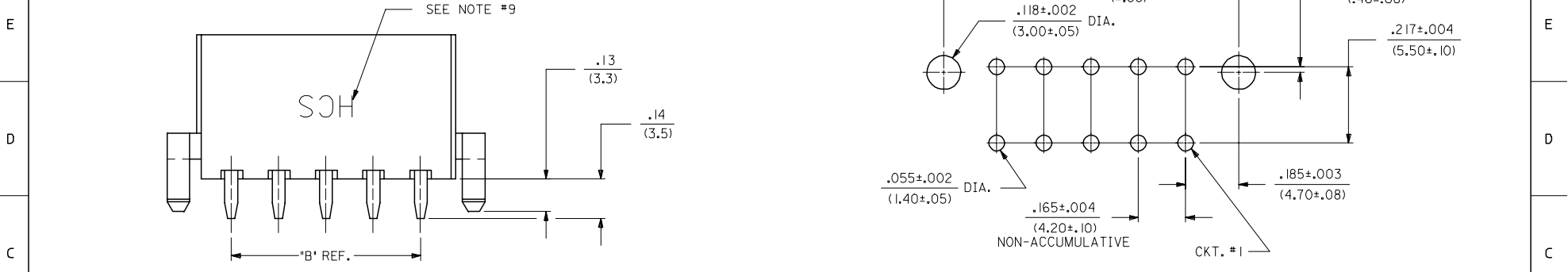
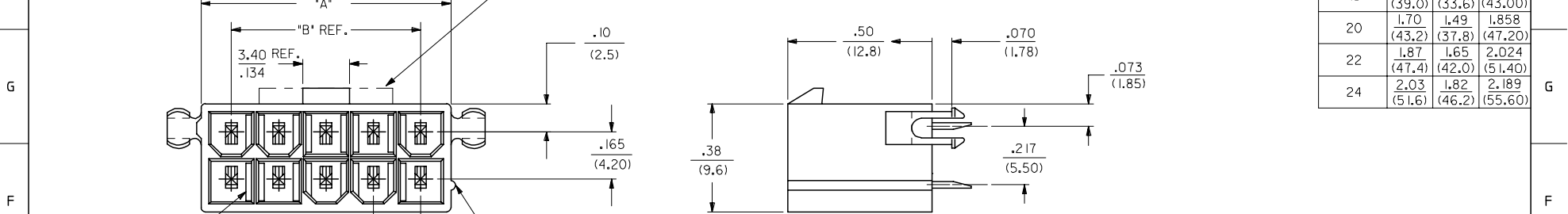
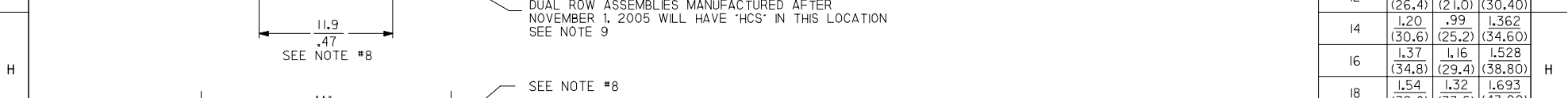
\* THE CHART FOR SINGLE ROW PRODUCT IS ON PAGE 7

STANDARDIZE NOTES EC NO: UCP2008-0153 2007/09/26 DRW:LLSCHMIDT 2007/09/26 CHKD:ADERR 2007/09/26 APPR:FSM TH	QUALITY SYMBOLS =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		mm	INCH	IN/MM	DATE	4:1	METRIC		
		4 PLACES ± --- ± ---		DRAWN BY	DATE	molex	SDA-44472-****	MINI-FIT VERT HDR ASSY W & W/O PEGS/DRAIN HOLES SINGLE AND DUAL ROW	
		3 PLACES ± --- ± .015		GEP	1994/07/25				
		2 PLACES ± 0.38 ± .020		CHECKED BY	DATE				
		1 PLACE ± 0.50 ± ---		RJF	1994/07/25				
		ANGULAR ±1/2°		APPROVED BY	DATE				
				RJF	1994/07/25			MOLEX INCORPORATED	
				MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
								1 OF 10	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHARTS		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: SCHMIDT 2007/09/26 CHECKED: ADERR 2007/09/26 APPROVED: FSN TH 2007/09/26 REV DESCRIPTION	<b>QUALITY SYMBOLS</b> 	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b> <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .15</td> <td>± .005</td> </tr> <tr> <td>3 PLACES</td> <td>± .10</td> <td>± .004</td> </tr> <tr> <td>2 PLACES</td> <td>± .08</td> <td>± .003</td> </tr> <tr> <td>1 PLACE</td> <td>± .05</td> <td>± .002</td> </tr> </table>		mm	INCH	4 PLACES	± .15	± .005	3 PLACES	± .10	± .004	2 PLACES	± .08	± .003	1 PLACE	± .05	± .002	<b>DIMENSION STYLE</b> IN/MM	<b>SCALE</b> 4:1	<b>DESIGN UNITS</b> METRIC	<b>THIRD ANGLE PROJECTION</b> 
		mm	INCH																		
	4 PLACES	± .15	± .005																		
	3 PLACES	± .10	± .004																		
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1 PLACE	± .05	± .002																			
<b>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</b>	<b>SEE CHARTS</b>	<b>MATERIAL NO.</b> SDA-44472-****	<b>DATE</b> 1994/07/26	<b>DATE</b> 1994/07/26	<b>DATE</b> 1994/07/26	<b>DATE</b> 1994/07/26															
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	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.				
	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	-				
H	44472-1856		18	44472-1857		18	44472-1858		18	-				
	44472-2056		20	44472-2057		20	44472-2058		20	-				
	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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	-		-	-		-						
D	-		-	-		-						

B	C	A	PLATING REFERENCE EC NO: UCP2008-0153 DRWN:LSCHMI DT 2007/09/26 CHKD:ADERR 2007/09/26 APPR:FSM TH 2007/09/26 REVISION DESCRIPTION	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>± .005</td> <td>± .0004</td> </tr> <tr> <td>3 PLACES</td> <td>± .008</td> <td>± .0003</td> </tr> <tr> <td>2 PLACES</td> <td>± .015</td> <td>± .0006</td> </tr> <tr> <td>1 PLACE</td> <td>± .030</td> <td>± .0012</td> </tr> </table>		mm	INCH	4 PLACES	± .005	± .0004	3 PLACES	± .008	± .0003	2 PLACES	± .015	± .0006	1 PLACE	± .030	± .0012	DIMENSION STYLE IN/MM DRAWN BY LEM DATE 1999/02/22 CHECKED BY MAB DATE 1999/02/22 APPROVED BY RRE DATE 1999/02/22 MATERIAL NO.	SCALE --- DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MINI-FIT VERT HDR ASSY W & W/O PEGS/DRAIN HOLES SINGLE AND DUAL ROW	SHEET NO. 4 OF 10
						mm	INCH																	
4 PLACES	± .005	± .0004																						
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SEE CHART	MOLEX INCORPORATED SDA-44472-****	MOLEX INCORPORATED SDA-44472-****	MOLEX INCORPORATED SDA-44472-****																