

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

**Part Number:** [0465572345](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY\* Slim Receptacle, 80 Circuits, 6.50mm (.255") Unmated Height, 4 Rows, With Pegs, Solder Charge™ Lead Free

**Documents:**

[3D Model](#) [Product Specification PS-45970-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

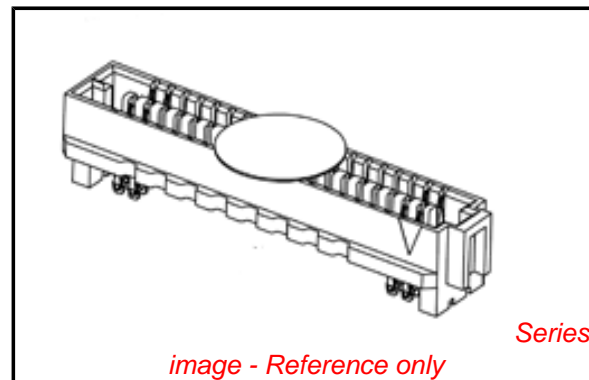
CSA LR19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series [46557](#)  
 Application Board-to-Board  
 Product Name SEARAY\*

**Physical**

Circuits (Loaded) 80  
 Circuits (maximum) 80  
 Circuits Detail 80  
 Color - Resin Black  
 Durability (mating cycles max) 100  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part No  
 Keying to Mating Part None  
 Lock to Mating Part No  
 Material - Metal Copper Alloy  
 Material - Plating Mating Gold, Nickel  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 4  
 Orientation Vertical  
 PC Tail Length (in) 0.086 In  
 PC Tail Length (mm) 2.18 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.57 mm  
 Packaging Type Embossed Tape on Reel  
 Pitch - Mating Interface (in) 0.050 In  
 Pitch - Mating Interface (mm) 1.27 mm  
 Pitch - Term. Interface (in) 0.050 In  
 Pitch - Term. Interface (mm) 1.27 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.75  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.5  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes  
 Robotic Placement Pick and Place Cap  
 Stackable No  
 Surface Mount Compatible (SMC) No



**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**

[46557Series](#)

**Mates With**

[46556](#) Searay\* Slim Plug Connector

Temperature Range - Operating -55°C to +125°C  
Termination Interface: Style Through Hole

### **Electrical**

Current - Maximum per Contact 1A  
Grounding to PCB No  
Voltage - Maximum 240V AC

### **Solder Process Data**

Duration at Max. Process Temperature (seconds) 20  
Lead-free Process Capability Reflow Capable (SMT only)  
Max. Cycles at Max. Process Temperature 3  
Process Temperature max. C 260

### **Material Info**

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

Product Specification PS-45970-001  
Sales Drawing SD-46557-001

\*SEARAY is a trademark of Samtec, Inc.

This document was generated on 04/14/2010

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

6

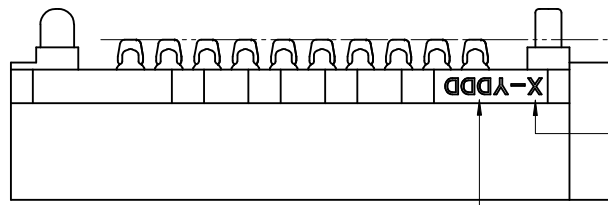
5

4

3

2

1



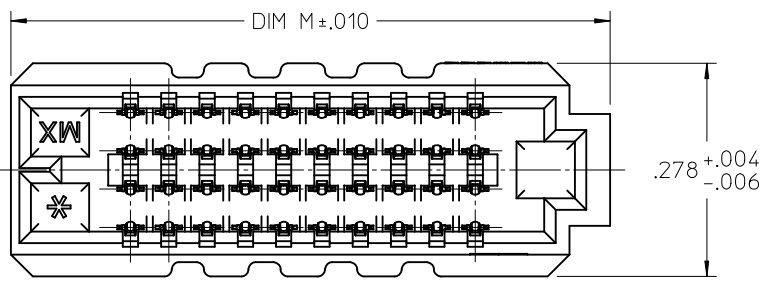
$\frac{\text{D}}{\text{M}}$  .006 ACROSS ALL SOLDER CHARGES

LEAD CODE  
1 = TIN  
2 = TIN/LEAD

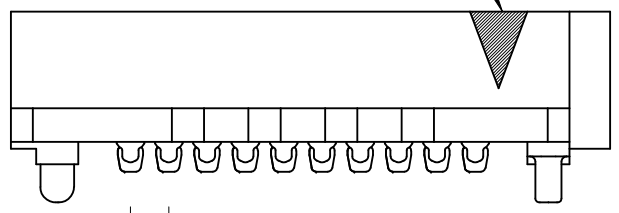
DATE CODE

NOTES:

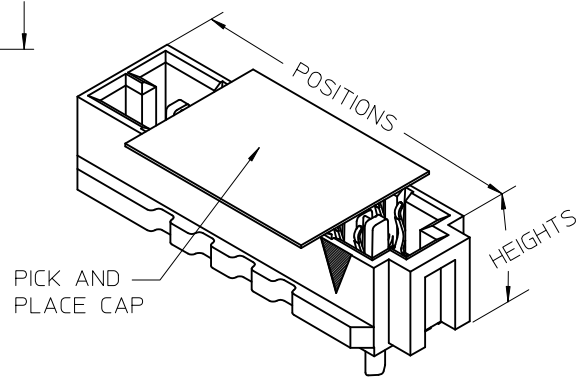
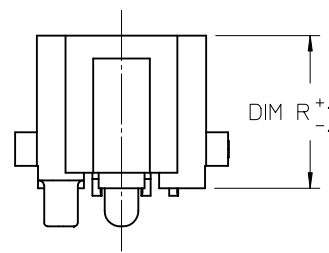
1. MATERIALS: HOUSING- LCP, UL94V-0, BLACK  
CONTACTS- COPPER ALLOY  
SOLDER CHARGE: SEE CHART
2. FINISH: ALL OPTIONS - SELECT GOLD IN CONTACT AREA: 30 MI MIN  
OPTIONS 5.0: SELECT GOLD FLASH IN TAIL, 7 MI MIN  
OPTIONS 6.0 THRU 8.0: SELECT TIN IN TAIL, 100 MI MIN  
ALL OPTIONS - OVER NICKEL
3. PRODUCT SPECIFICATION: PS-45970-001
4. PACKAGING SPECIFICATION: PK-45970-002
5. MATES WITH SEARAY SLIM RECPT ASSY 46556
6. APPLICATION SPECIFICATION: AS-45970-001
7. COSMETIC SPECIFICATION: PS-45499-002 CLASS B
8. PART STATUS: CONTACT MOLEX



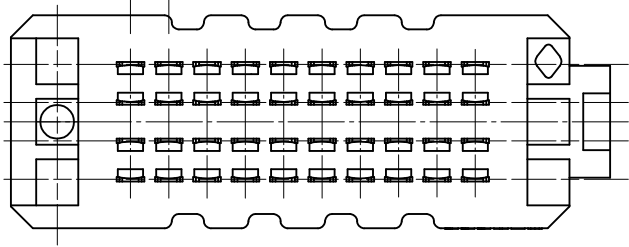
ROW 1 / CKT 1 ID



.050 TYP  
TERMINAL PITCH



POSITION	DIM M	$\frac{\text{D}}{\text{M}}$
10	.782	.006
15	1.032	.006
20	1.282	.006
25	1.532	.006
30	1.782	.006
35	2.032	.006
40	2.282	.006
45	2.532	.009
50	2.782	.009



.050 TYP  
TERMINAL PITCH

REV	H	DESCRIPTION
		UPDATED NOTE 2
		EC NO: UCP2010-2270
		DRWN: TGREGORI 2010/03/05
		CHKD: JCOMERCI 2007/05/21
	APPR: JCOMERCI 2010/03/05	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm
4 PLACES	± ---
3 PLACES	± ---
2 PLACES	± ---
1 PLACE	± ---
ANGULAR ± ---°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE INCH ONLY	
DRAWN BY	DATE
TGREGORI	2007/05/21
CHECKED BY	DATE
JCOMERCI	2007/05/21
APPROVED BY	DATE
JCOMERCI	2010/03/05
MATERIAL NO. SEE CHART	

SCALE 4:1	DESIGN UNITS INCH
TITLE SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH	
MOLEX INCORPORATED	
DOCUMENT NO. SD-46557-001	SHEET NO. 1 OF 4

THIRD ANGLE PROJECTION
------------------------

5

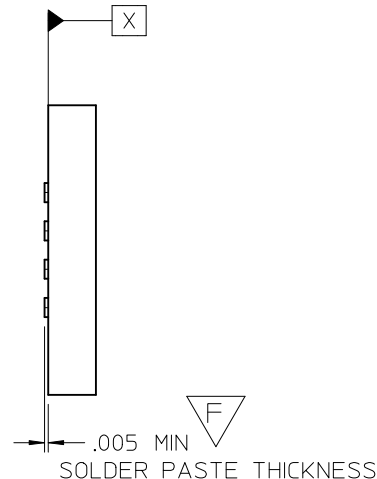
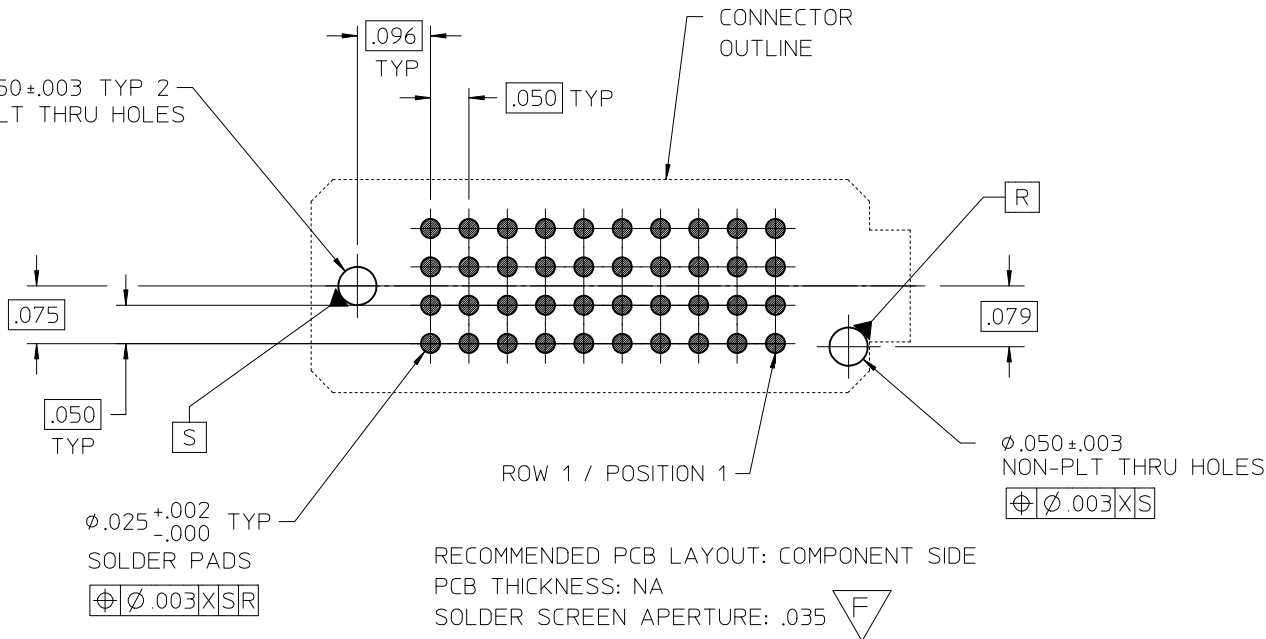
4

3

2

1

6  
 $\phi .050 \pm .003$  TYP 2  
 NON-PLT THRU HOLES

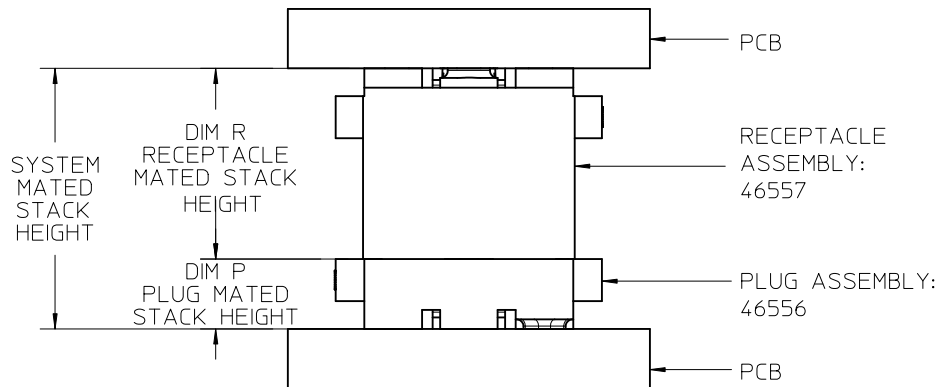


$\phi .025^{+.002}_{-.000}$  TYP  
 SOLDER PADS  
 $\phi \phi .003 \times SR$

RECOMMENDED PCB LAYOUT: COMPONENT SIDE  
 PCB THICKNESS: NA  
 SOLDER SCREEN APERTURE: .035

		DIM R RECEPTACLE STACK HEIGHT					
		MM	5.0	6.0	6.5	7.5	8.0
DIM P PLUG STACK HEIGHT	2.0	7.0	8.0	8.5	9.5	10.0	10.5
	3.0	8.0	9.0	9.5	10.5	11.0	11.5
	3.5	8.5	9.5	10.0	11.0	11.5	12.0
	2.5	7.5	8.5	9.0	10.0	10.5	11.0
	4.5	9.5	10.5	11.0	12.0	12.5	13.0
	5.0	10.0	11.0	11.5	12.5	13.0	13.5
	7.0	12.0	13.0	13.5	14.5	15.0	15.5

STACK HEIGHTS GIVEN IN MM FOR REF ONLY




SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2007/05/21 APPR: JCOMERC I 2010/03/05	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
		4 PLACES	$\pm$ ---	$\pm$ ---	DRAWN BY TGREGOR I	DATE 2007/05/21	TITLE SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH
		3 PLACES	$\pm$ ---	$\pm .005$	CHECKED BY JCOMERC I	DATE 2007/05/21	
		2 PLACES	$\pm$ ---	$\pm$ ---	APPROVED BY JCOMERC I	DATE 2010/03/05	
1 PLACE	$\pm$ ---	$\pm$ ---	MATERIAL NO.	DOCUMENT NO. SD-46557-001	SHEET NO. 2 OF 4		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		MATERIAL NO.		SHEET NO.	
H	REV	ANGULAR $\pm$ ---°		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

	6	5	4	3	2	1
DIM R: (REF)	5.0 MM	6.0 MM	6.5 MM	7.5 MM	8.0 MM	STACK HEIGHTS GIVEN IN MM FOR REF ONLY
DIM R: HOUSING HEIGHT	.199	.238	.258	.297	.317	
POSITIONS	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	
10	46557-1145	46557-1245	46557-1345	46557-1445	46557-1545	
20	46557-2145	46557-2245	46557-2345	46557-2445	46557-2545	
30	46557-3145	46557-3245	46557-3345	46557-3445	46557-3545	
40	46557-4145	46557-4245	46557-4345	46557-4445	46557-4545	
50	46557-5145	46557-5245	46557-5345	46557-5445	46557-5545	
15	46557-6145	46557-6245	46557-6345	46557-6445	46557-6545	
25	46557-7145	46557-7245	46557-7345	46557-7445	46557-7545	
35	46557-8145	46557-8245	46557-8345	46557-8445	46557-8545	
45	46557-9145	46557-9245	46557-9345	46557-9445	46557-9545	

NOTES:

- THIS SHEET CONTAINS THE FOLLOWING OPTIONS  
SOLDER CHARGE: TIN

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERCI 2007/05/21 APPR: JCOMERCI 2010/03/05 REV DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>INCH ONLY</b>		SCALE <b>1:1</b>	DESIGN UNITS <b>INCH</b>	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY TGREGORI	DATE 2007/05/21	TITLE <b>SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH</b>		
	4 PLACES	± .005	± .005	CHECKED BY JCOMERCI	DATE 2007/05/21			
	3 PLACES	± .005	± .005	APPROVED BY JCOMERCI	DATE 2010/03/05			
	2 PLACES	± .005	± .005	ANGULAR ± .005°		 <b>MOLEX INCORPORATED</b>		
1 PLACE	± .005	± .005	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. <b>SEE CHART</b>		DOCUMENT NO. <b>SD-46557-001</b>	SHEET NO. <b>3 OF 4</b>

	6	5	4	3	2	1
DIM R: (REF)	5.0 MM	6.0 MM	6.5 MM	7.5 MM	8.0 MM	STACK HEIGHTS GIVEN IN MM FOR REF ONLY
DIM R: HOUSING HEIGHT	.199	.238	.258	.297	.317	
POSITIONS	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	
10	46557-1147	46557-1247	46557-1347	46557-1447	46557-1547	
20	46557-2147	46557-2247	46557-2347	46557-2447	46557-2547	
30	46557-3147	46557-3247	46557-3347	46557-3447	46557-3547	
40	46557-4147	46557-4247	46557-4347	46557-4447	46557-4547	
50	46557-5147	46557-5247	46557-5347	46557-5447	46557-5547	
15	46557-6147	46557-6247	46557-6347	46557-6447	46557-6547	
25	46557-7147	46557-7247	46557-7347	46557-7447	46557-7547	
35	46557-8147	46557-8247	46557-8347	46557-8447	46557-8547	
45	46557-9147	46557-9247	46557-9347	46557-9447	46557-9547	

NOTES:

- THIS SHEET CONTAINS THE FOLLOWING OPTIONS  
SOLDER CHARGE: TIN / LEAD

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERCI 2007/05/21 APPR: JCOMERCI 2010/03/05 REV DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>INCH ONLY</b>		SCALE <b>1:1</b>	DESIGN UNITS <b>INCH</b>	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY TGREGORI	DATE 2007/05/21	TITLE <b>SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH</b>		
	4 PLACES	± ---	± ---	CHECKED BY JCOMERCI	DATE 2007/05/21			
	3 PLACES	± ---	± .005	APPROVED BY JCOMERCI	DATE 2010/03/05			
	2 PLACES	± ---	± ---	ANGULAR ± ---°		<b>MOLEX INCORPORATED</b>		
1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. <b>SEE CHART</b>		DOCUMENT NO. <b>SD-46557-001</b>	SHEET NO. <b>4 OF 4</b>