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Part Number: [0465574245](#)
Status: **Active**
Description: 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY* Slim Receptacle, 160 Circuits, 8.00mm (.236") 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

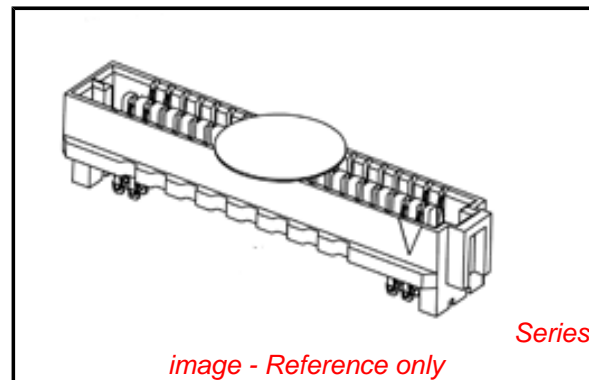
CSA LR19980
 UL E29179

General

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

Physical

Circuits (Loaded) 160
 Circuits (maximum) 160
 Circuits Detail 160
 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
 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

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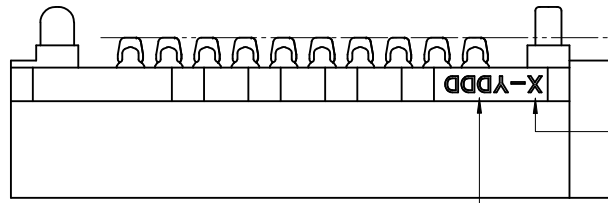
5

4

3

2

1



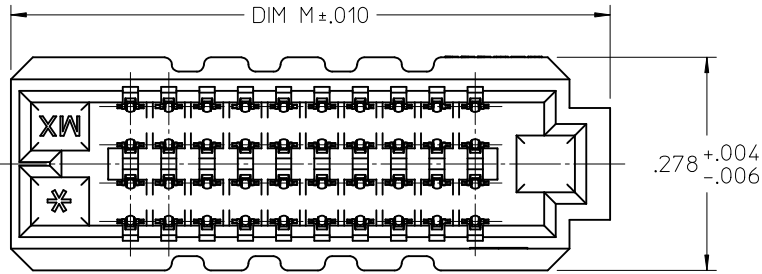
$\frac{\text{D}}{\text{M}}$.006 ACROSS ALL SOLDER CHARGES

LEAD CODE
1 = TIN
2 = TIN/LEAD

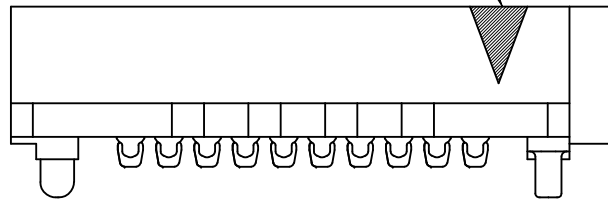
DATE CODE

NOTES:

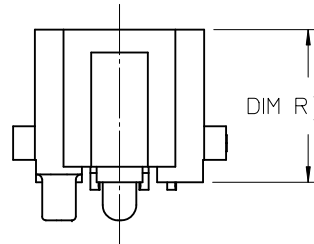
1. MATERIALS: HOUSING- LCP, UL94V-0, BLACK
CONTACTS- COPPER ALLOY
SOLDER CHARGE: SEE CHART
2. FINISH: ALL OPTIONS - SELECT GOLD IN CONTACT AREA: 30 MI MIN
OPTIONS 5.0: SELECT GOLD FLASH IN TAIL, 7 MI MIN
OPTIONS 6.0 THRU 8.0: SELECT TIN IN TAIL, 100 MI MIN
ALL OPTIONS - OVER NICKEL
3. PRODUCT SPECIFICATION: 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



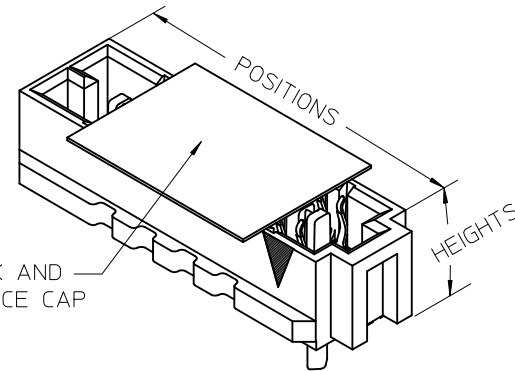
ROW 1 / CKT 1 ID



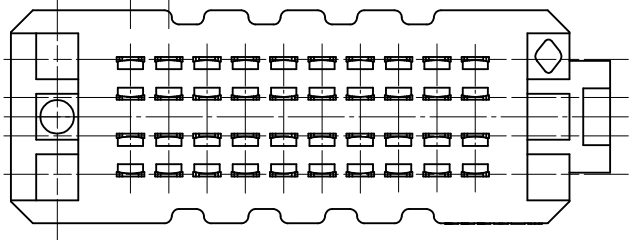
.050 TYP
TERMINAL PITCH



PICK AND PLACE CAP



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

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

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± .005
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	
SIZE	A

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

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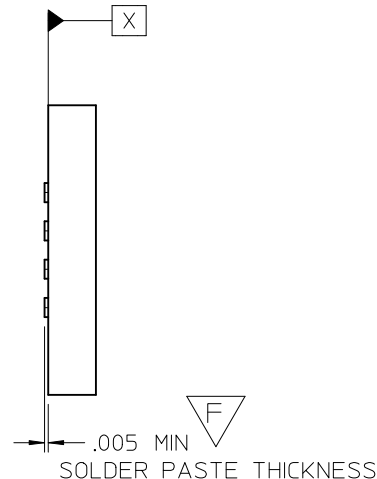
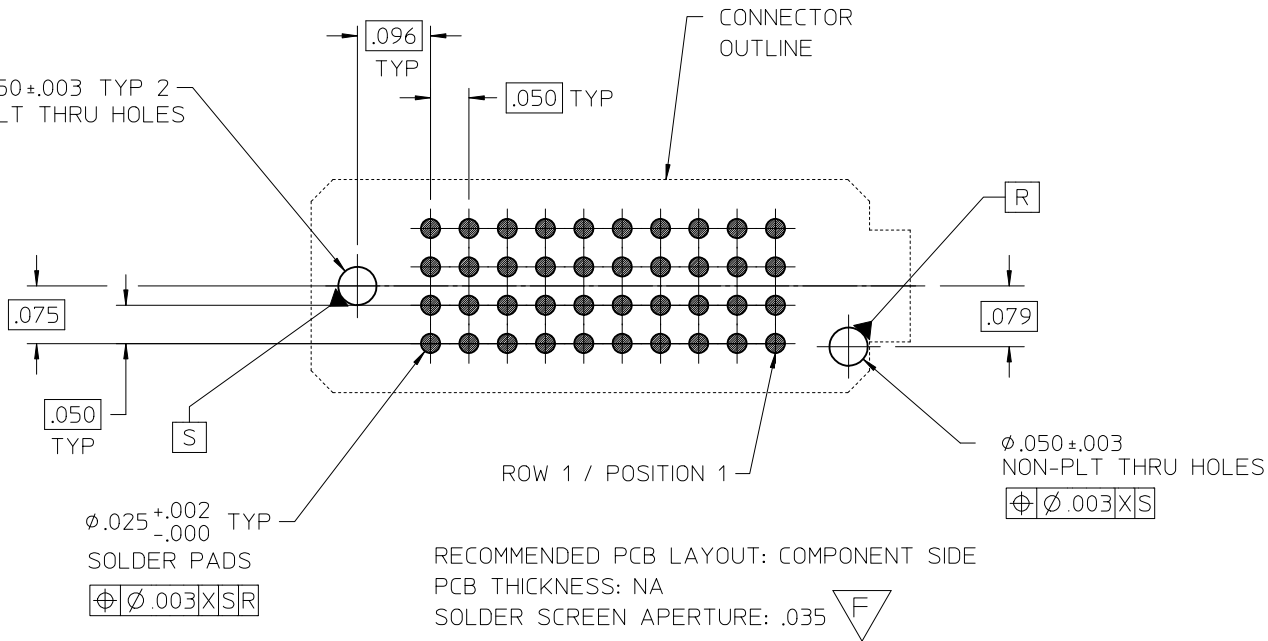
4

3

2

1

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



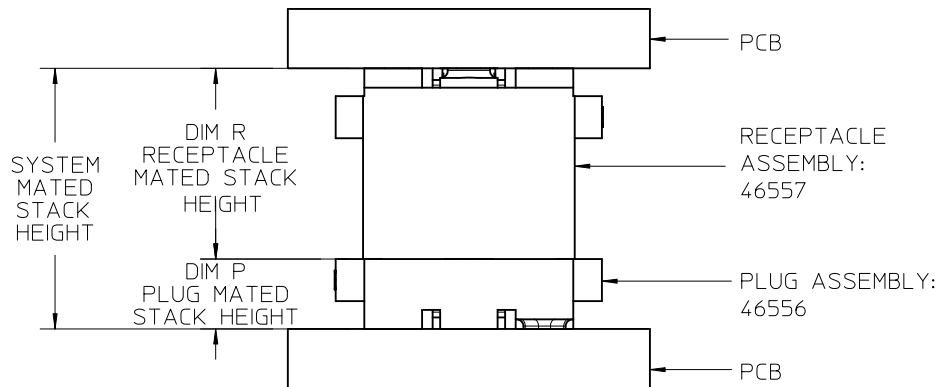
ROW 1 / POSITION 1
 RECOMMENDED PCB LAYOUT: COMPONENT SIDE
 PCB THICKNESS: NA
 SOLDER SCREEN APERTURE: .035 F

$\phi .025 \pm .002$
 TYP
 SOLDER PADS
 $\phi \phi .003 \times S R$

$\phi .050 \pm .003$
 NON-PLT THRU HOLES
 $\phi \phi .003 \times S$

		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	
	3.0	8.0	9.0	9.5	10.5	11.0	
	3.5	8.5	9.5	10.0	11.0	11.5	
	2.5	7.5	8.5	9.0	10.0	10.5	
	4.5	9.5	10.5	11.0	12.0	12.5	
	5.0	10.0	11.0	11.5	12.5	13.0	
	7.0	12.0	13.0	13.5	14.5	15.0	

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
			mm	INCH	DRAWN BY TGREGOR I	DATE 2007/05/21	SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH MOLEX INCORPORATED
		4 PLACES	± ---	± ---	CHECKED BY JCOMERC I	DATE 2007/05/21	
		3 PLACES	± ---	± .005	APPROVED BY JCOMERC I	DATE 2010/03/05	
2 PLACES	± ---	± ---	MATERIAL NO.	DOCUMENT NO.			
		1 PLACE	± ---	± ---	SEE CHART	SD-46557-001	SHEET NO. 2 OF 4
		ANGULAR ± ---°		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	
H	REV						

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

	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 INCH ONLY		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION		
		mm	INCH	DRAWN BY TGREGORI	DATE 2007/05/21	TITLE SEARAY SLIM RECEPTACLE ASSEMBLY .050 PITCH			
	4 PLACES	± ---	± ---	CHECKED BY JCOMERCI	DATE 2007/05/21				
	3 PLACES	± ---	± .005	APPROVED BY JCOMERCI	DATE 2010/03/05				
	2 PLACES	± ---	± ---	MATERIAL NO. SEE CHART		MOLEX INCORPORATED		DOCUMENT NO. SD-46557-001	
1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SHEET NO. 4 OF 4				