

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0465565745](#)
Status: **Active**
Description: 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY* Slim Plug, 200 Circuits, 7.00mm (.275") 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

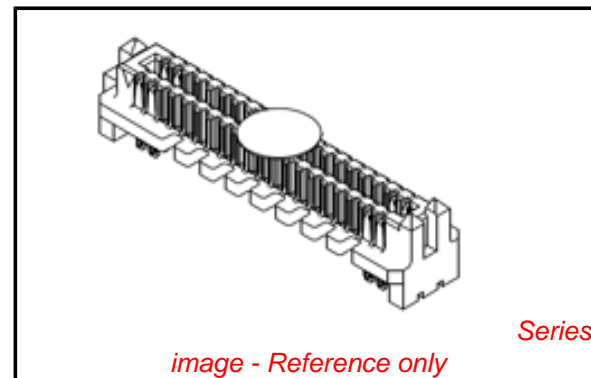
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [46556](#)
 Application Board-to-Board
 Product Name SEARAY*

Physical

Breakaway No
 Circuits (Loaded) 200
 Circuits (maximum) 200
 Circuits Detail 200
 Color - Resin Black
 Durability (mating cycles max) 100
 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 None
 Material - Metal Copper Alloy
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin High Temperature Thermoplastic
 Number of Rows 4
 Orientation Vertical
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 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
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Robotic Placement Pick and Place Cap
 Shrouded No
 Stackable No
 Surface Mount Compatible (SMC) Yes
 Temperature Range - Operating -55°C to +125°C
 Termination Interface: Style Surface Mount



EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

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.

China RoHS



Search Parts in this Series

[46556Series](#)

Mates With

[46557 SEARAY* Receptacle](#)

Electrical

| | |
|-------------------------------|---------|
| Current - Maximum per Contact | 1A |
| 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-46556-001 |

*SEARAY is a trademark of Samtec, Inc.

This document was generated on 03/24/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

6

5

4

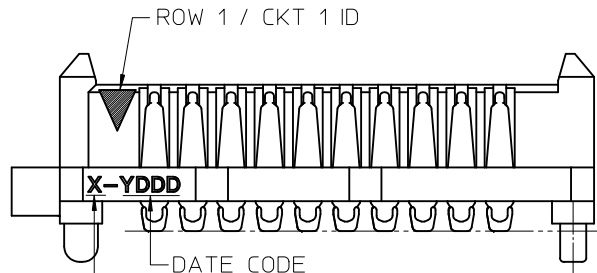
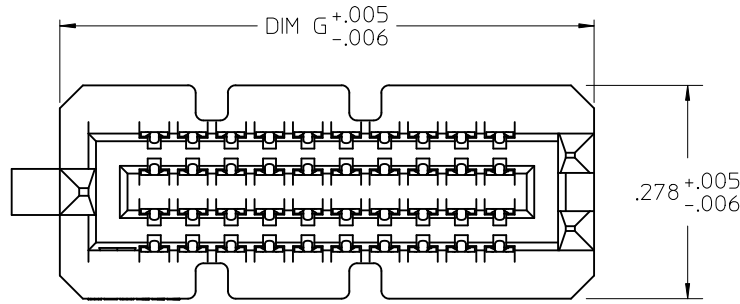
3

2

1

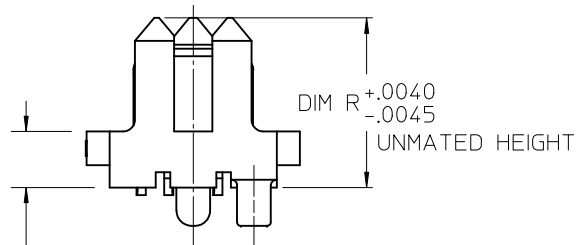
NOTES:

- 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 2.0 & 2.5: SELECT GOLD FLASH IN TAIL, 7 MI MIN
OPTIONS 3.0 THRU 7.0: 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 RECPT ASSEMBLY 46557
- 6. APPLICATION SPECIFICATION: AS-45970-001
- 7. COSMETIC SPECIFICATION: PS-45499-002 CLASS B
- 8. PART STATUS: CONTACT MOLEX

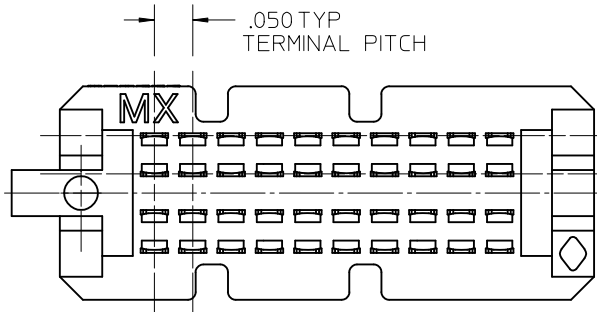


LEAD CODE:
1 = TIN
2 = TIN / LEAD

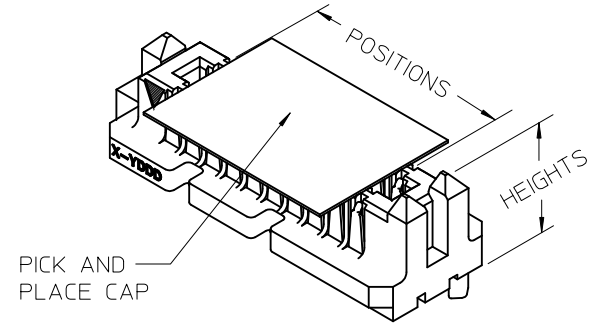
SEE TABLE
ACROSS ALL
SOLDER
CHARGES



DIM P
REF ONLY
MATED STACK
HEIGHT
(MILLIMETERS)



.050 TYP
TERMINAL PITCH



PICK AND
PLACE CAP

| POSITIONS | DIM G | |
|-----------|-------|------|
| 10 | .696 | .006 |
| 15 | .946 | .006 |
| 20 | 1.196 | .006 |
| 25 | 1.446 | .006 |
| 30 | 1.696 | .006 |
| 35 | 1.946 | .006 |
| 40 | 2.196 | .006 |
| 45 | 2.446 | .009 |
| 50 | 2.696 | .009 |

| |
|---------------------------|
| UPDATED NOTE 2 |
| EC NO: UCP2010-2270 |
| DRWN: TREGORI 2010/03/05 |
| CHKD: JCOMERCI 2007/05/17 |
| APPR: JCOMERCI 2010/03/05 |
| REV |
| DESCRIPTION |

| | |
|--|--------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | |
| mm | INCH |
| 4 PLACES ± --- | ± --- |
| 3 PLACES ± --- | ± .005 |
| 2 PLACES ± --- | ± --- |
| 1 PLACE ± --- | ± --- |
| ANGULAR ± 1/2° | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | |

| | |
|------------------------------|------------|
| DIMENSION STYLE INCH ONLY | |
| DRAWN BY | DATE |
| TGREGORI | 2007/05/17 |
| CHECKED BY | DATE |
| JCOMERCI | 2007/05/17 |
| APPROVED BY | DATE |
| JCOMERCI | 2010/03/05 |
| MATERIAL NO. SEE CHART | |
| SIZE | A |

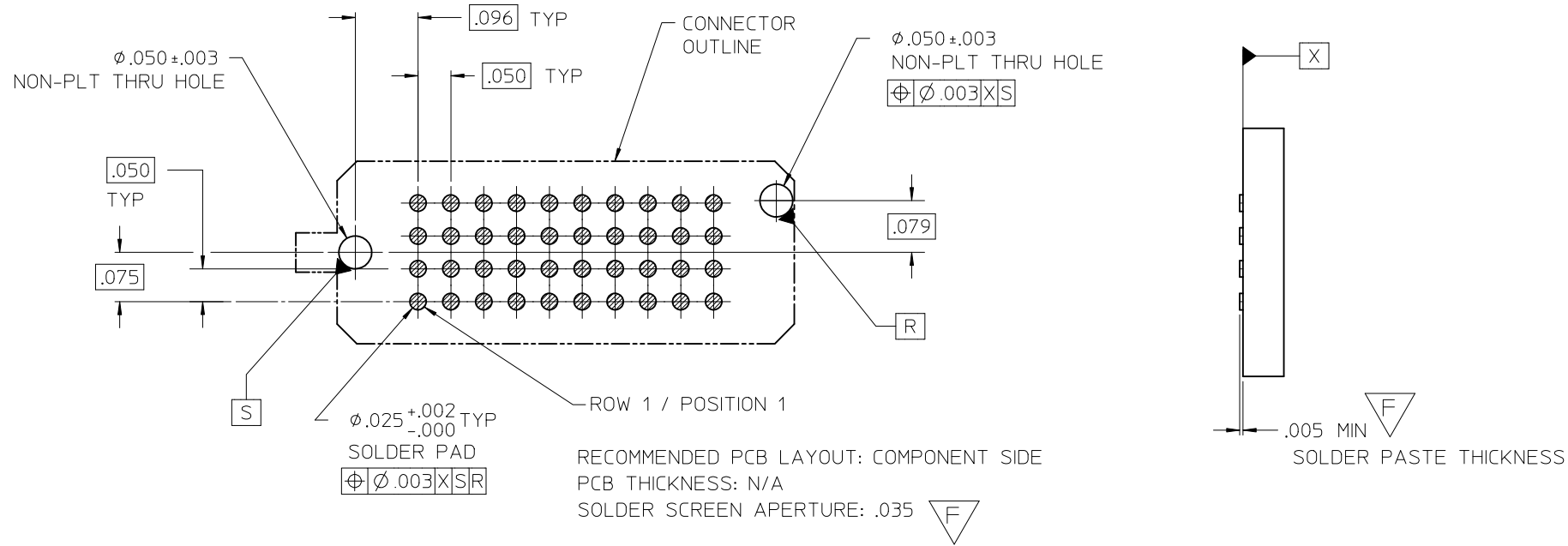
| | | |
|---|----------------------|------------------------|
| SCALE 4:1 | DESIGN UNITS INCH | THIRD ANGLE PROJECTION |
| TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH | | |
| MOLEX INCORPORATED | | |
| DOCUMENT NO. SD-46556-001 | SHEET NO. 1 OF 4 | |

5

4

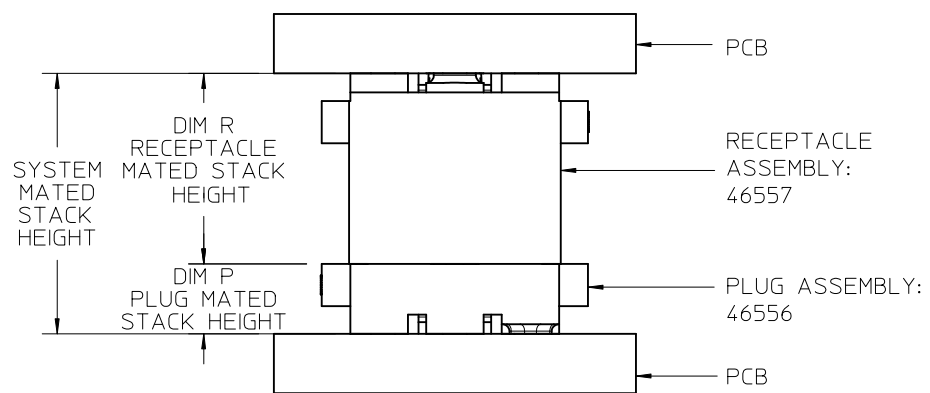
3

2



| | | 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 | 11.0 |
| | 3.0 | 8.0 | 9.0 | 9.5 | 10.5 | 11.0 | 11.0 |
| | 3.5 | 8.5 | 9.5 | 10.0 | 11.0 | 11.5 | 11.5 |
| | 2.5 | 7.5 | 8.5 | 9.0 | 10.0 | 10.5 | 10.5 |
| | 4.5 | 9.5 | 10.5 | 11.0 | 12.0 | 12.5 | 12.5 |
| | 5.0 | 10.0 | 11.0 | 11.5 | 12.5 | 13.0 | 13.0 |
| | 7.0 | 12.0 | 13.0 | 13.5 | 14.5 | 15.0 | 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 2007/05/17
 APPR: JCOMERC I 2010/03/05

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|----------|--------|---------|
| 4 PLACES | ± .005 | ± .0002 |
| 3 PLACES | ± .005 | ± .0005 |
| 2 PLACES | ± .005 | ± .0010 |
| 1 PLACE | ± .005 | ± .0015 |

ANGULAR ±1/2°

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
INCH ONLY

DRAWN BY DATE
 TGREGOR I 2007/05/17

CHECKED BY DATE
 JCOMERC I 2007/05/17

APPROVED BY DATE
 JCOMERC I 2010/03/05

MATERIAL NO.
SEE CHART

SCALE
4:1

DESIGN UNITS
INCH

THIRD ANGLE PROJECTION

TITLE
**SEARAY SLIM
 PLUG ASSEMBLY
 .050 PITCH**

molex MOLEX INCORPORATED

DOCUMENT NO. SHEET NO.
SD-46556-001 2 OF 4

| | 6 | 5 | 4 | 3 | 2 | 1 | |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| DIM P | 2.0 MM | 3.0 MM | 3.5 MM | 2.5 MM | 4.5 MM | 5.0 MM | 7.0 MM |
| DIM R: HOUSING HEIGHT: | .221 | .260 | .280 | .241 | .319 | .339 | .418 |
| D POSITIONS | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO |
| 10 | 46556-1145 | 46556-1245 | 46556-1345 | 46556-1445 | 46556-1545 | 46556-1645 | 46556-1745 |
| 20 | 46556-2145 | 46556-2245 | 46556-2345 | 46556-2445 | 46556-2545 | 46556-2645 | 46556-2745 |
| 30 | 46556-3145 | 46556-3245 | 46556-3345 | 46556-3445 | 46556-3545 | 46556-3645 | 46556-3745 |
| 40 | 46556-4145 | 46556-4245 | 46556-4345 | 46556-4445 | 46556-4545 | 46556-4645 | 46556-4745 |
| 50 | 46556-5145 | 46556-5245 | 46556-5345 | 46556-5445 | 46556-5545 | 46556-5645 | 46556-5745 |
| C 15 | 46556-6145 | 46556-6245 | 46556-6345 | 46556-6445 | 46556-6545 | 46556-6645 | 46556-6745 |
| 25 | 46556-7145 | 46556-7245 | 46556-7345 | 46556-7445 | 46556-7545 | 46556-7645 | 46556-7745 |
| 35 | 46556-8145 | 46556-8245 | 46556-8345 | 46556-8445 | 46556-8545 | 46556-8645 | 46556-8745 |
| 45 | 46556-9145 | 46556-9245 | 46556-9345 | 46556-9445 | 46556-9545 | 46556-9645 | 46556-974 |


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 2007/05/17 APPR: JCOMERC I 2010/03/05 | DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE INCH ONLY | | SCALE 1:1 | DESIGN UNITS INCH | THIRD ANGLE PROJECTION | | |
| | | | mm | INCH | DRAWN BY TGREGOR I | DATE 2007/05/17 | TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH | | | |
| | | 4 PLACES | ± --- | ± --- | CHECKED BY JCOMERC I | DATE 2007/05/17 | | | | |
| | | 3 PLACES | ± --- | ± .005 | APPROVED BY JCOMERC I | DATE 2010/03/05 | MOLEX INCORPORATED DOCUMENT NO. SD-46556-001 SHEET NO. 3 OF 4 | | | |
| | | 2 PLACES | ± --- | ± --- | MATERIAL NO. SEE CHART | | | | | |
| 1 PLACE | ± --- | ± --- | ANGULAR ±1/2° | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | | |

| | 6 | 5 | 4 | 3 | 2 | 1 | |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| DIM P | 2.0 MM | 3.0 MM | 3.5 MM | 2.5 MM | 4.5 MM | 5.0 MM | 7.0 MM |
| DIM R: HOUSING HEIGHT: | .221 | .260 | .280 | .241 | .319 | .339 | .418 |
| D POSITIONS | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO | MATERIAL NO |
| 10 | 46556-1147 | 46556-1247 | 46556-1347 | 46556-1447 | 46556-1547 | 46556-1647 | 46556-1747 |
| 20 | 46556-2147 | 46556-2247 | 46556-2347 | 46556-2447 | 46556-2547 | 46556-2647 | 46556-2747 |
| 30 | 46556-3147 | 46556-3247 | 46556-3347 | 46556-3447 | 46556-3547 | 46556-3647 | 46556-3747 |
| 40 | 46556-4147 | 46556-4247 | 46556-4347 | 46556-4447 | 46556-4547 | 46556-4647 | 46556-4747 |
| 50 | 46556-5147 | 46556-5247 | 46556-5347 | 46556-5447 | 46556-5547 | 46556-5647 | 46556-5747 |
| C 15 | 46556-6147 | 46556-6247 | 46556-6347 | 46556-6447 | 46556-6547 | 46556-6647 | 46556-6747 |
| 25 | 46556-7147 | 46556-7247 | 46556-7347 | 46556-7447 | 46556-7547 | 46556-7647 | 46556-7747 |
| 35 | 46556-8147 | 46556-8247 | 46556-8347 | 46556-8447 | 46556-8547 | 46556-8647 | 46556-8747 |
| 45 | 46556-9147 | 46556-9247 | 46556-9347 | 46556-9447 | 46556-9547 | 46556-9647 | 46556-9747 |

NOTES:
1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS
SOLDER CHARGE: TIN / LEAD

| | | | | | | | | | | | |
|--|--------------------|---------------------------------------|---------------|-------------------------------------|--|---------------------|--|---|--|--|--|
| SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2007/05/17 APPR: JCOMERC I 2010/03/05 | DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE INCH ONLY | | SCALE 1:1 | DESIGN UNITS INCH | THIRD ANGLE PROJECTION | | | |
| | | | mm | INCH | DRAWN BY TGREGOR I | DATE 2007/05/17 | TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH | | | | |
| | | 4 PLACES | ± --- | ± --- | CHECKED BY JCOMERC I | DATE 2007/05/17 | | | | | |
| | | 3 PLACES | ± --- | ± .005 | APPROVED BY JCOMERC I | | DATE 2010/03/05 |  MOLEX INCORPORATED DOCUMENT NO. SD-46556-001 | | | |
| | | 2 PLACES | ± --- | ± --- | MATERIAL NO. | | SHEET NO. | | | | |
| 1 PLACE | ± --- | ± --- | ANGULAR ±1/2° | | SEE CHART THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | 4 OF 4 | | | | |