

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0459702115

Status:

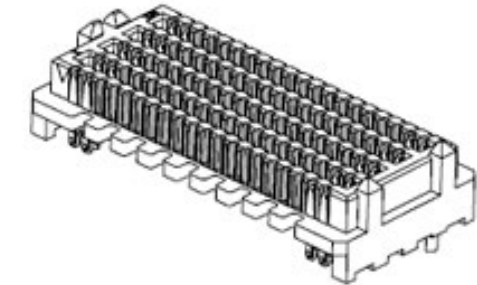
Active

Overview:

searay

Description:

1.27mm (.050") x 1.27mm (.050") Pitch SEARAY* Plug, 200 Circuits, 2.00mm (.078") Unmated Height, 10 Rows, Lead Free



Series

image - Reference only

Documents:

- [3D Model](#)
- [Drawing \(PDF\)](#)
- [Product Specification PS-45970-001 \(PDF\)](#)
- [Product Specification PS-45970-002 \(PDF\)](#)
- [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	45970
Application	Board-to-Board
Overview	searay
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	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	10
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
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

EU RoHS

ELV and RoHS
Compliant
REACH SVHC
Not Reviewed
Halogen-Free
Status

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
45970Series

Mates With
45971 SEARAY* Receptacle

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

Electrical

Current - Maximum per Contact	2.7A
Voltage - Maximum	240V AC

Solder Process Data

Duration at Max. Process Temperature (seconds)	3
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

Material Info

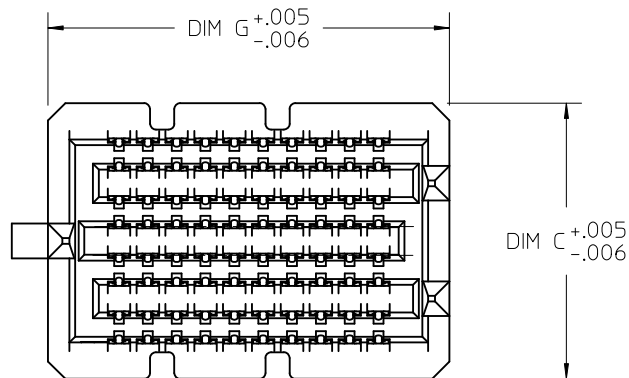
Reference - Drawing Numbers

Application Specification	AS-45970-002, AS-45970-990
Packaging Specification	PK-45970-001, PK-45970-002
Product Specification	PS-45970-001, PS-45970-002
Sales Drawing	SD-45970-001
Test Summary	TS-45970-001

*SEARAY is a trademark of Samtec, Inc.

This document was generated on 05/25/2010

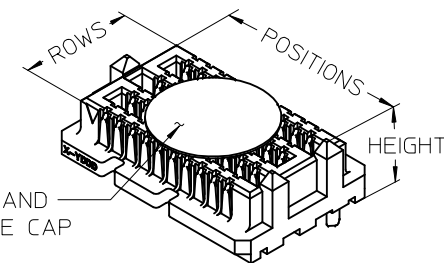
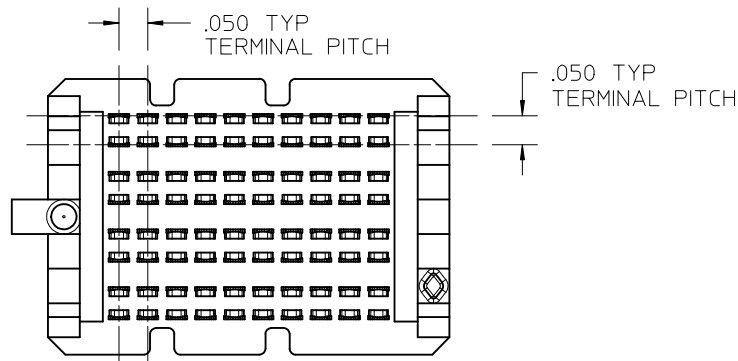
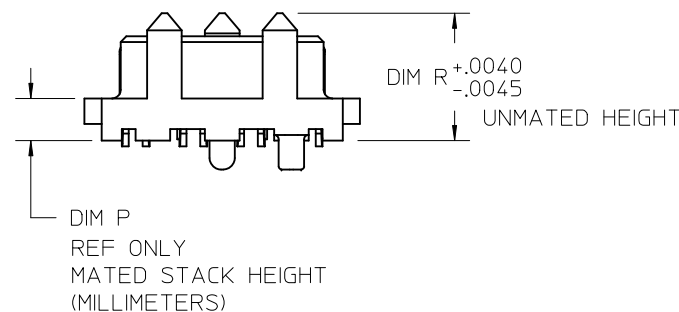
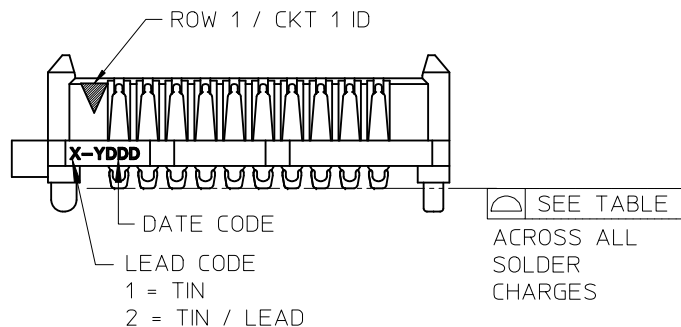
PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION



NOTES:

1. MATERIAL: HOUSING: LCP, UL94V-0, BLACK
CONTACTS: COPPER ALLOY
SOLDER CHARGE: SEE CHARTS
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: SEE CHART
5. MATES WITH SEARAY RECEPTACLE ASSY 45971
6. APPLICATION SPECIFICATION: AS-45970-001
7. COSMETIC SPECIFICATION: PS-45499-002 CLASS B
8. PART STATUS: CONTACT MOLEX

POSITION	
19	.006
10	.006
20	.006
30	.006
40	.006
50	.006
15	.006
25	.006
35	.009
45	.009



HOUSING OPTIONS
SEE CHARTS

UPDATED NOTE 2	DESCRIPTION
EC NO: UCP2010-2270	
DRWN: TREGORI	2010/03/05
CHKD: JCOMERC I	2010/03/05
APPR: JCOMERC I	2010/03/05
M	REV

GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± ---	± .015
1 PLACE	± ---	± ---
ANGULAR ± ---°		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE INCH ONLY	
DRAWN BY	DATE
TGREGORI	2005/01/27
CHECKED BY	DATE
JCOMERC I	
APPROVED BY	DATE
JCOMERC I	2010/03/05
MATERIAL NO.	
SEE CHART	
SIZE	
A	

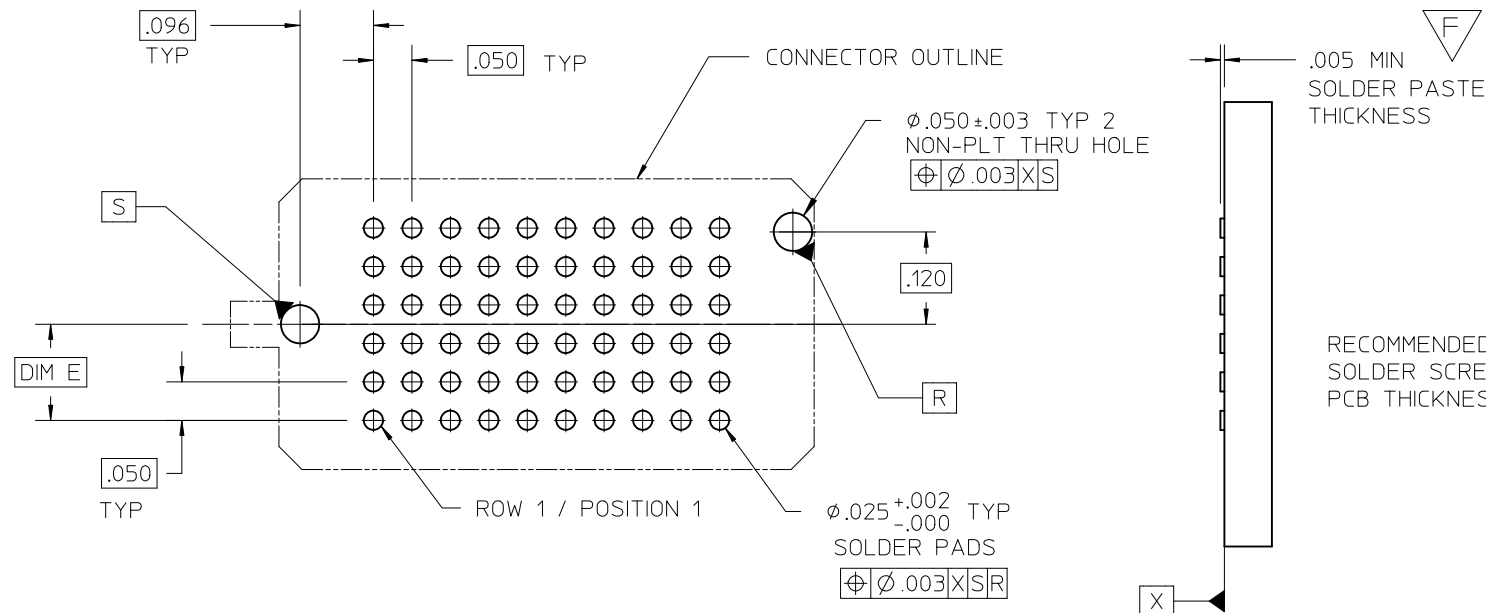
SCALE 3:1	DESIGN UNITS INCH	 THIRD ANGLE PROJECTION	
TITLE SEARAY PLUG ASSEMBLY .050 CENTERS			
MOLEX INCORPORATED			
DOCUMENT NO. SD-45970-001			SHEET NO. 1 OF 10

D

C

D

C



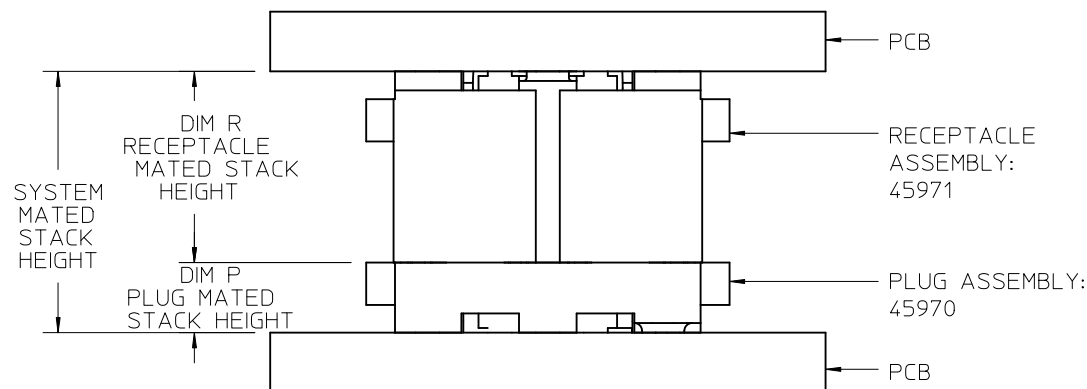
NO OF ROWS	DIM C	DIM E
6	.378	.125
8	.478	.175
10	.578	.225
12	.678	.275

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



		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	

MATED STACK HEIGHTS
(MILLIMETERS) REF



STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERC I 2010/03/05 APPR: JCOMERC I 2010/03/05 M	REV	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	 THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY TGREGORI	DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS					
			4 PLACES	± ---	± ---	CHECKED BY JCOMERC I							
			3 PLACES	± ---	± .010	APPROVED BY JCOMERC I		DATE 2010/03/05	 MOLEX INCORPORATED				
			2 PLACES	± ---	± .015	DOCUMENT NO. SD-45970-001		SHEET NO. 2 OF 10					
			1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							
			ANGULAR ± ---°										
						SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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D

C

B

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TRAY PACK PK-45971-001

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:		.221	.260	.280	.241	.319	.339	.418
POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
19	1.146	45970-0161	45970-0261	45970-0361	45970-0461	45970-0561	45970-0661	45970-0761
10	0.696	45970-1161	45970-1261	45970-1361	45970-1461	45970-1561	45970-1661	45970-1761
20	1.196	45970-2161	45970-2261	45970-2361	45970-2461	45970-2561	45970-2661	45970-2761
30	1.696	45970-3161	45970-3261	45970-3361	45970-3461	45970-3561	45970-3661	45970-3761
40	2.196	45970-4161	45970-4261	45970-4361	45970-4461	45970-4561	45970-4661	45970-4761
50	2.696	45970-5161	45970-5261	45970-5361	45970-5461	45970-5561	45970-5661	45970-5761
15	0.946	45970-6161	45970-6261	45970-6361	45970-6461	45970-6561	45970-6661	45970-6761
25	1.446	45970-7161	45970-7261	45970-7361	45970-7461	45970-7561	45970-7661	45970-7761
35	1.946	45970-8161	45970-8261	45970-8361	45970-8461	45970-8561	45970-8661	45970-8761
45	2.446	45970-9161	45970-9261	45970-9361	45970-9461	45970-9561	45970-9661	45970-9761

TAPE AND REEL PACK PK-45971-002

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:		.221	.260	.280	.241	.319	.339	.418
POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
19	1.146	45970-0165	45970-0265	45970-0365	45970-0465	45970-0565	45970-0665	45970-0765
10	0.696	45970-1165	45970-1265	45970-1365	45970-1465	45970-1565	45970-1665	45970-1765
20	1.196	45970-2165	45970-2265	45970-2365	45970-2465	45970-2565	45970-2665	45970-2765
30	1.696	45970-3165	45970-3265	45970-3365	45970-3465	45970-3565	45970-3665	45970-3765
40	2.196	45970-4165	45970-4265	45970-4365	45970-4465	45970-4565	45970-4665	45970-4765
50	2.696	45970-5165	45970-5265	45970-5365	45970-5465	45970-5565	45970-5665	45970-5765
15	0.946	45970-6165	45970-6265	45970-6365	45970-6465	45970-6565	45970-6665	45970-6765
25	1.446	45970-7165	45970-7265	45970-7365	45970-7465	45970-7565	45970-7665	45970-7765
35	1.946	45970-8165	45970-8265	45970-8365	45970-8465	45970-8565	45970-8665	45970-8765
45	2.446	45970-9165	45970-9265	45970-9365	45970-9465	45970-9565	45970-9665	45970-9765

NOTES:

1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS:
NO OF ROWS: 6
SOLDER CHARGE: TIN
PACKAGING: TRAYS AND TAPE AND REEL

SEE SHEET 1
EC NO: UCP2010-2270
DRWN: TGREGORI 2010/03/05
CHKD: JCOMERCI 2010/03/05
APPR: JCOMERCI 2010/03/05

DESCRIPTION

REV

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± ---	± .015
1 PLACE	± ---	± ---

ANGULAR ± ---°

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
INCH ONLY

DRAWN BY	DATE
TGREGORI	2005/01/27
CHECKED BY	DATE
JCOMERCI	
APPROVED BY	DATE
JCOMERCI	2010/03/05

SIZE
A

SCALE
4:1

DESIGN UNITS
INCH

 THIRD ANGLE
PROJECTION

TITLE
SEARAY
PLUG ASSEMBLY
.050 CENTERS

 MOLEX INCORPORATED

DOCUMENT NO.
SD-45970-001

SHEET NO.
3 OF 10

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Rev. E 2006/04/15

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		6		5		4		3		2		1							
D	TRAY PACK PK-45971-001	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:		.221		.260		.280		.241		3.19		.339		.418			
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO			
		19	1.146	45970-0163		45970-0263		45970-0363		45970-0463		45970-0563		45970-0663		45970-0763			
		10	0.696	45970-1163		45970-1263		45970-1363		45970-1463		45970-1563		45970-1663		45970-1763			
		20	1.196	45970-2163		45970-2263		45970-2363		45970-2463		45970-2563		45970-2663		45970-2763			
		30	1.696	45970-3163		45970-3263		45970-3363		45970-3463		45970-3563		45970-3663		45970-3763			
		40	2.196	45970-4163		45970-4263		45970-4363		45970-4463		45970-4563		45970-4663		45970-4763			
		50	2.696	45970-5163		45970-5263		45970-5363		45970-5463		45970-5563		45970-5663		45970-5763			
		15	0.946	45970-6163		45970-6263		45970-6363		45970-6463		45970-6563		45970-6663		45970-6763			
		25	1.446	45970-7163		45970-7263		45970-7363		45970-7463		45970-7563		45970-7663		45970-7763			
		35	1.946	45970-8163		45970-8263		45970-8363		45970-8463		45970-8563		45970-8663		45970-8763			
		45	2.446	45970-9163		45970-9263		45970-9363		45970-9463		45970-9563		45970-9663		45970-9763			
C	TAPE AND REEL PACK PK-45971-002	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:		.221		.260		.280		.241		.319		.339		.418			
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO			
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		10	0.696	45970-1167		45970-1267		45970-1367		45970-1467		45970-1567		45970-1667		45970-1767			
		20	1.196	45970-2167		45970-2267		45970-2367		45970-2467		45970-2567		45970-2667		45970-2767			
		30	1.696	45970-3167		45970-3267		45970-3367		45970-3467		45970-3567		45970-3667		45970-3767			
		40	2.196	45970-4167		45970-4267		45970-4367		45970-4467		45970-4567		45970-4667		45970-4767			
		50	2.696	45970-5167		45970-5267		45970-5367		45970-5467		45970-5567		45970-5667		45970-5767			
		15	0.946	45970-6167		45970-6267		45970-6367		45970-6467		45970-6567		45970-6667		45970-6767			
		25	1.446	45970-7167		45970-7267		45970-7367		45970-7467		45970-7567		45970-7667		45970-7767			
		35	1.946	45970-8167		45970-8267		45970-8367		45970-8467		45970-8567		45970-8667		45970-8767			
		45	2.446	45970-9167		45970-9267		45970-9367		45970-9467		45970-9567		45970-9667		45970-9767			
B	NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 6 SOLDER CHARGE: TIN / LEAD PACKAGING: TRAYS AND TAPE AND REEL																		
	SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERCI 2010/03/05 APPR: JCOMERCI 2010/03/05	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION									
			4 PLACES	± ---	± ---	DRAWN BY DATE		TITLE SEARAY PLUG ASSEMBLY .050 CENTERS											
						TGREGORI 2005/01/27													
						CHECKED BY DATE													
						JCOMERCI													
			3 PLACES	± ---	± .010	APPROVED BY DATE		MOLEX MOLEX INCORPORATED											
						JCOMERCI 2010/03/05													
			2 PLACES	± ---	± .015	ANGULAR ± ---°			DOCUMENT NO.		SD-45970-001								
			1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SHEET NO. 4 OF 10										
									SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1									

D	TRAY PACK PK-45971-001	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:		.221		.260		.280		.241		.319		.339		.418	
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO	
		19	1.146	45970-0181		45970-0281		45970-0381		45970-0481		45970-0581		45970-0681		45970-0781	
		10	0.696	45970-1181		45970-1281		45970-1381		45970-1481		45970-1581		45970-1681		45970-1781	
		20	1.196	45970-2181		45970-2281		45970-2381		45970-2481		45970-2581		45970-2681		45970-2781	
		30	1.696	45970-3181		45970-3281		45970-3381		45970-3481		45970-3581		45970-3681		45970-3781	
		40	2.196	45970-4181		45970-4281		45970-4381		45970-4481		45970-4581		45970-4681		45970-4781	
		50	2.696	45970-5181		45970-5281		45970-5381		45970-5481		45970-5581		45970-5681		45970-5781	
		15	0.946	45970-6181		45970-6281		45970-6381		45970-6481		45970-6581		45970-6681		45970-6781	
		25	1.446	45970-7181		45970-7281		45970-7381		45970-7481		45970-7581		45970-7681		45970-7781	
		35	1.946	45970-8181		45970-8281		45970-8381		45970-8481		45970-8581		45970-8681		45970-8781	
45	2.446	45970-9181		45970-9281		45970-9381		45970-9481		45970-9581		45970-9681		45970-9781			
C	TAPE AND REEL PACK PK-45971-002	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:		.221		.260		.280		.241		.319		.339		.418	
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO	
		19	1.146	45970-0185		45970-0285		45970-0385		45970-0485		45970-0585		45970-0685		45970-0785	
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		30	1.696	45970-3185		45970-3285		45970-3385		45970-3485		45970-3585		45970-3685		45970-3785	
		40	2.196	45970-4185		45970-4285		45970-4385		45970-4485		45970-4585		45970-4685		45970-4785	
		50	2.696	45970-5185		45970-5285		45970-5385		45970-5485		45970-5585		45970-5685		45970-5785	
		15	0.946	45970-6185		45970-6285		45970-6385		45970-6485		45970-6585		45970-6685		45970-6785	
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		35	1.946	45970-8185		45970-8285		45970-8385		45970-8485		45970-8585		45970-8685		45970-8785	
		45	2.446	45970-9185		45970-9285		45970-9385		45970-9485		45970-9585		45970-9685		45970-9785	
B		NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 8 SOLDER CHARGE: TIN PACKAGING: TRAYS AND TAPE AND REEL															
		SEE SHEET 1 EC NO: UCP2010-2270 DRWN:TGREGORI 2010/03/05 CHKD:JCOMERCI 2010/03/05 APPR:JCOMERCI 2010/03/05 M	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)				DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION					
				4 PLACES 3 PLACES 2 PLACES 1 PLACE	mm	INCH	DRAWN BY TGREGORI	DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS								
					± ---	± ---	CHECKED BY JCOMERCI	DATE									
					± ---	± .010	APPROVED BY JCOMERCI	DATE 2010/03/05									
					± ---	± .015	MOLEX MOLEX INCORPORATED										
				ANGULAR ± ---°						DOCUMENT NO. SD-45970-001		SHEET NO. 5 OF 10					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
		tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1					

D	TRAY PACK PK-45971-001	DIM P:		2.0 MM	3.0 MM	3.5 MM	2.5 MM	4.5 MM	5.0 MM	7.0 MM	D		
		DIM R:		.221	.260	.280	.241	.319	.339	.418			
		POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO			
		19	1.146	45970-0183	45970-0283	45970-0383	45970-0483	45970-0583	45970-0683	45970-0783			
		10	0.696	45970-1183	45970-1283	45970-1383	45970-1483	45970-1583	45970-1683	45970-1783			
		20	1.196	45970-2183	45970-2283	45970-2383	45970-2483	45970-2583	45970-2683	45970-2783			
		30	1.696	45970-3183	45970-3283	45970-3383	45970-3483	45970-3583	45970-3683	45970-3783			
		40	2.196	45970-4183	45970-4283	45970-4383	45970-4483	45970-4583	45970-4683	45970-4783			
		50	2.696	45970-5183	45970-5283	45970-5383	45970-5483	45970-5583	45970-5683	45970-5783			
		15	0.446	45970-6183	45970-6283	45970-6383	45970-6483	45970-6583	45970-6683	45970-6783			
		25	0.946	45970-7183	45970-7283	45970-7383	45970-7483	45970-7583	45970-7683	45970-7783			
		35	1.446	45970-8183	45970-8283	45970-8383	45970-8483	45970-8583	45970-8683	45970-8783			
		45	1.946	45970-9183	45970-9283	45970-9383	45970-9483	45970-9583	45970-9683	45970-9783			
C	TAPE AND REEL PACK PK-45971-002	DIM P:		2.0 MM	3.0 MM	3.5 MM	2.5 MM	4.5 MM	5.0 MM	7.0 MM	C		
		DIM R:		.221	.260	.280	.241	.319	.339	.418			
		POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO			
		19	1.146	45970-0187	45970-0287	45970-0387	45970-0487	45970-0587	45970-0687	45970-0787			
		10	0.696	45970-1187	45970-1287	45970-1387	45970-1487	45970-1587	45970-1687	45970-1787			
		20	1.196	45970-2187	45970-2287	45970-2387	45970-2487	45970-2587	45970-2687	45970-2787			
		30	1.696	45970-3187	45970-3287	45970-3387	45970-3487	45970-3587	45970-3687	45970-3787			
		40	2.196	45970-4187	45970-4287	45970-4387	45970-4487	45970-4587	45970-4687	45970-4787			
		50	2.696	45970-5187	45970-5287	45970-5387	45970-5487	45970-5587	45970-5687	45970-5787			
		15	0.946	45970-6187	45970-6287	45970-6387	45970-6487	45970-6587	45970-6687	45970-6787			
		25	1.446	45970-7187	45970-7287	45970-7387	45970-7487	45970-7587	45970-7687	45970-7787			
		35	1.946	45970-8187	45970-8287	45970-8387	45970-8487	45970-8587	45970-8687	45970-8787			
		45	2.446	45970-9187	45970-9287	45970-9387	45970-9487	45970-9587	45970-9687	45970-9787			
B	NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 8 SOLDER CHARGE: TIN / LEAD PACKAGING: TRAYS AND TAPE AND REEL											B	
	SEE SHEET 1 EC NO: UCP2010-2270 DRWN:TGREGORI 2010/03/05 CHKD:JCOMERCI 2010/03/05 APPR:JCOMERCI 2010/03/05	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION			
			4 PLACES 3 PLACES 2 PLACES 1 PLACE	mm	INCH	DRAWN BY TGREGORI	DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS					
				± ---	± ---	CHECKED BY JCOMERCI	DATE						
				± ---	± .010	APPROVED BY JCOMERCI	DATE 2010/03/05						
				± ---	± .015	MOLEX MOLEX INCORPORATED							
			ANGULAR ± ---°					DOCUMENT NO. SD-45970-001		SHEET NO. 6 OF 10			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
	M	REV											
	tb_frame_A_P_AM T Rev. E 2006/04/15												
	5 4 3 2 1												

		6		5		4		3		2		1							
D	TRAY PACK PK-45971-001	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:		.221		.260		.280		.241		.319		.339		.418			
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO			
		19	1.146	45970-0111		45970-0211		45970-0311		45970-0411		45970-0511		45970-0611		45970-0711			
		10	0.696	45970-1111		45970-1211		45970-1311		45970-1411		45970-1511		45970-1611		45970-1711			
		20	1.196	45970-2111		45970-2211		45970-2311		45970-2411		45970-2511		45970-2611		45970-2711			
		30	1.696	45970-3111		45970-3211		45970-3311		45970-3411		45970-3511		45970-3611		45970-3711			
		40	2.196	45970-4111		45970-4211		45970-4311		45970-4411		45970-4511		45970-4611		45970-4711			
		50	2.696	45970-5111		45970-5211		45970-5311		45970-5411		45970-5511		45970-5611		45970-5711			
		15	0.946	45970-6111		45970-6211		45970-6311		45970-6411		45970-6511		45970-6611		45970-6711			
		25	1.446	45970-7111		45970-7211		45970-7311		45970-7411		45970-7511		45970-7611		45970-7711			
		35	1.946	45970-8111		45970-8211		45970-8311		45970-8411		45970-8511		45970-8611		45970-8711			
		45	2.446	45970-9111		45970-9211		45970-9311		45970-9411		45970-9511		45970-9611		45970-9711			
C	TAPE AND REEL PACK PK-45971-002	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:		.221		.260		.280		.241		.319		.339		.418			
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO			
		19	1.146	45970-0115		45970-0215		45970-0315		45970-0415		45970-0515		45970-0615		45970-0715			
		10	0.696	45970-1115		45970-1215		45970-1315		45970-1415		45970-1515		45970-1615		45970-1715			
		20	1.196	45970-2115		45970-2215		45970-2315		45970-2415		45970-2515		45970-2615		45970-2715			
		30	1.696	45970-3115		45970-3215		45970-3315		45970-3415		45970-3515		45970-3615		45970-3715			
		40	2.196	45970-4115		45970-4215		45970-4315		45970-4415		45970-4515		45970-4615		45970-4715			
		50	2.696	45970-5115		45970-5215		45970-5315		45970-5415		45970-5515		45970-5615		45970-5715			
		15	0.946	45970-6115		45970-6215		45970-6315		45970-6415		45970-6515		45970-6615		45970-6715			
		25	1.446	45970-7115		45970-7215		45970-7315		45970-7415		45970-7515		45970-7615		45970-7715			
		35	1.946	45970-8115		45970-8215		45970-8315		45970-8415		45970-8515		45970-8615		45970-8715			
		45	2.446	45970-9115		45970-9215		45970-9315		45970-9415		45970-9515		45970-9615		45970-9715			
B	NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 10 SOLDER CHARGE: TIN PACKAGING: TRAYS AND TAPE AND REEL																		
	SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERCI 2010/03/05 APPR: JCOMERCI 2010/03/05 M	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION									
							DRAWN BY TGREGORI		DATE 2005/01/27		SEARAY PLUG ASSEMBLY .050 CENTERS								
			4 PLACES ± ---		± ---		CHECKED BY JCOMERCI		DATE										
			3 PLACES ± ---		± .010														
			2 PLACES ± ---		± .015														
			1 PLACE ± ---		± ---		APPROVED BY JCOMERCI		DATE 2010/03/05		MOLEX INCORPORATED								
			ANGULAR ± ---°																
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							DOCUMENT NO. SD-45970-001									
			SIZE A		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION														
			SHEET NO. 7 OF 10																
			tb_frame_A_P_AM_T Rev. E 2006/04/15																
					5		4		3		2		1						

		6		5		4		3		2		1					
D	TRAY PACK PK-45971-001	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:		.221		.260		.280		.241		.319		.339		.418	
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO	
		19	1.146	45970-0113		45970-0213		45970-0313		45970-0413		45970-0513		45970-0613		45970-0713	
		10	0.696	45970-1113		45970-1213		45970-1313		45970-1413		45970-1513		45970-1613		45970-1713	
		20	1.196	45970-2113		45970-2213		45970-2313		45970-2413		45970-2513		45970-2613		45970-2713	
		30	1.696	45970-3113		45970-3213		45970-3313		45970-3413		45970-3513		45970-3613		45970-3713	
		40	2.196	45970-4113		45970-4213		45970-4313		45970-4413		45970-4513		45970-4613		45970-4713	
		50	2.696	45970-5113		45970-5213		45970-5313		45970-5413		45970-5513		45970-5613		45970-5713	
		15	0.946	45970-6113		45970-6213		45970-6313		45970-6413		45970-6513		45970-6613		45970-6713	
		25	1.446	45970-7113		45970-7213		45970-7313		45970-7413		45970-7513		45970-7613		45970-7713	
		35	1.946	45970-8113		45970-8213		45970-8313		45970-8413		45970-8513		45970-8613		45970-8713	
45	2.446	45970-9113		45970-9213		45970-9313		45970-9413		45970-9513		45970-9613		45970-9713			
C	TAPE AND REEL PACK PK-45971-002	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:		.221		.260		.280		.241		.319		.339		.418	
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO	
		19	1.146	45970-0117		45970-0217		45970-0317		45970-0417		45970-0517		45970-0617		45970-0717	
		10	0.696	45970-1117		45970-1217		45970-1317		45970-1417		45970-1517		45970-1617		45970-1717	
		20	1.196	45970-2117		45970-2217		45970-2317		45970-2417		45970-2517		45970-2617		45970-2717	
		30	1.696	45970-3117		45970-3217		45970-3317		45970-3417		45970-3517		45970-3617		45970-3717	
		40	2.196	45970-4117		45970-4217		45970-4317		45970-4417		45970-4517		45970-4617		45970-4717	
		50	2.696	45970-5117		45970-5217		45970-5317		45970-5417		45970-5517		45970-5617		45970-5717	
		15	0.946	45970-6117		45970-6217		45970-6317		45970-6417		45970-6517		45970-6617		45970-6717	
		25	1.446	45970-7117		45970-7217		45970-7317		45970-7417		45970-7517		45970-7617		45970-7717	
		35	1.946	45970-8117		45970-8217		45970-8317		45970-8417		45970-8517		45970-8617		45970-8717	
45	2.446	45970-9117		45970-9217		45970-9317		45970-9417		45970-9517		45970-9617		45970-9717			
B		NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 10 SOLDER CHARGE: TIN / LEAD PACKAGING: TRAYS AND TAPE AND REEL															
		SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2010/03/05 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 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS								
				4 PLACES	± ---	± ---	CHECKED BY JCOMERC I	DATE									
				3 PLACES	± ---	± .010											
				2 PLACES	± ---	± .015											
				1 PLACE	± ---	± ---	APPROVED BY JCOMERC I	DATE 2010/03/05	MOLEX INCORPORATED								
				ANGULAR ± ---°					DOCUMENT NO. SD-45970-001			SHEET NO. 8 OF 10					
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS													
							SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
				M	REV												
		tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1					

D		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:		.221		.260		.280		.241		.319		.339		.418					
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO					
		19	1.146	45970-0121		45970-0221		45970-0321		45970-0421		45970-0521		45970-0621		45970-0721					
		10	0.696	45970-1121		45970-1221		45970-1321		45970-1421		45970-1521		45970-1621		45970-1721					
		20	1.196	45970-2121		45970-2221		45970-2321		45970-2421		45970-2521		45970-2621		45970-2721					
		30	1.696	45970-3121		45970-3221		45970-3321		45970-3421		45970-3521		45970-3621		45970-3721					
		40	2.196	45970-4121		45970-4221		45970-4321		45970-4421		45970-4521		45970-4621		45970-4721					
		50	2.696	45970-5121		45970-5221		45970-5321		45970-5421		45970-5521		45970-5621		45970-5721					
		15	0.946	45970-6121		45970-6221		45970-6321		45970-6421		45970-6521		45970-6621		45970-6721					
		25	1.446	45970-7121		45970-7221		45970-7321		45970-7421		45970-7521		45970-7621		45970-7721					
		35	1.946	45970-8121		45970-8221		45970-8321		45970-8421		45970-8521		45970-8621		45970-8721					
45	2.446	45970-9121		45970-9221		45970-9321		45970-9421		45970-9521		45970-9621		45970-9721							
C		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:		.221		.260		.280		.241		.319		.339		.418					
		POSITION	DIM G	MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO		MATERIAL NO					
		19	1.146	45970-0125		45970-0225		45970-0325		45970-0425		45970-0525		45970-0625		45970-0725					
		10	0.696	45970-1125		45970-1225		45970-1325		45970-1425		45970-1525		45970-1625		45970-1725					
		20	1.196	45970-2125		45970-2225		45970-2325		45970-2425		45970-2525		45970-2625		45970-2725					
		30	1.696	45970-3125		45970-3225		45970-3325		45970-3425		45970-3525		45970-3625		45970-3725					
		40	2.196	45970-4125		45970-4225		45970-4325		45970-4425		45970-4525		45970-4625		45970-4725					
		50	2.696	45970-5125		45970-5225		45970-5325		45970-5425		45970-5525		45970-5625		45970-5725					
		15	0.946	45970-6125		45970-6225		45970-6325		45970-6425		45970-6525		45970-6625		45970-6725					
		25	1.446	45970-7125		45970-7225		45970-7325		45970-7425		45970-7525		45970-7625		45970-7725					
		35	1.946	45970-8125		45970-8225		45970-8325		45970-8425		45970-8525		45970-8625		45970-8725					
		45	2.446	45970-9125		45970-9225		45970-9325		45970-9425		45970-9525		45970-9625		45970-9725					
B		NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 12 SOLDER CHARGE: TIN PACKAGING: TRAYS AND TAPE AND REEL																			
		SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGORI 2010/03/05 CHKD: JCOMERCI 2010/03/05 APPR: JCOMERCI 2010/03/05		DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	 THIRD ANGLE PROJECTION									
					4 PLACES ± --- ± ---		DRAWN BY DATE TGREGORI 2005/01/27		TITLE SEARAY PLUG ASSEMBLY .050 CENTERS  MOLEX INCORPORATED												
					3 PLACES ± --- ± .010		CHECKED BY DATE JCOMERCI														
					2 PLACES ± --- ± .015		APPROVED BY DATE JCOMERCI 2010/03/05														
					1 PLACE ± --- ± ---		ANGULAR ± ---°		DOCUMENT NO. SD-45970-001		SHEET NO. 9 OF 10										
					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														
					M		REV														
					tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1						

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4

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D

C

B

A

TRAY PACK PK-45971-001

TAPE AND REEL PACK PK-45971-002

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:		.221	.260	.280	.241	.319	.339	.418
POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
19	1.146	45970-0123	45970-0223	45970-0323	45970-0423	45970-0523	45970-0623	45970-0723
10	0.696	45970-1123	45970-1223	45970-1323	45970-1423	45970-1523	45970-1623	45970-1723
20	1.196	45970-2123	45970-2223	45970-2323	45970-2423	45970-2523	45970-2623	45970-2723
30	1.696	45970-3123	45970-3223	45970-3323	45970-3423	45970-3523	45970-3623	45970-3723
40	2.196	45970-4123	45970-4223	45970-4323	45970-4423	45970-4523	45970-4623	45970-4723
50	2.696	45970-5123	45970-5223	45970-5323	45970-5423	45970-5523	45970-5623	45970-5723
15	0.946	45970-6123	45970-6223	45970-6323	45970-6423	45970-6523	45970-6623	45970-6723
25	1.446	45970-7123	45970-7223	45970-7323	45970-7423	45970-7523	45970-7623	45970-7723
35	1.946	45970-8123	45970-8223	45970-8323	45970-8423	45970-8523	45970-8623	45970-8723
45	2.446	45970-9123	45970-9223	45970-9323	45970-9423	45970-9523	45970-9623	45970-9723

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:		.221	.260	.280	.241	.319	.339	.418
POSITION	DIM G	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
19	1.146	45970-0127	45970-0227	45970-0327	45970-0427	45970-0527	45970-0627	45970-0727
10	0.696	45970-1127	45970-1227	45970-1327	45970-1427	45970-1527	45970-1627	45970-1727
20	1.196	45970-2127	45970-2227	45970-2327	45970-2427	45970-2527	45970-2627	45970-2727
30	1.696	45970-3127	45970-3227	45970-3327	45970-3427	45970-3527	45970-3627	45970-3727
40	2.196	45970-4127	45970-4227	45970-4327	45970-4427	45970-4527	45970-4627	45970-4727
50	2.696	45970-5127	45970-5227	45970-5327	45970-5427	45970-5527	45970-5627	45970-5727
15	0.946	45970-6127	45970-6227	45970-6327	45970-6427	45970-6527	45970-6627	45970-6727
25	1.446	45970-7127	45970-7227	45970-7327	45970-7427	45970-7527	45970-7627	45970-7727
35	1.946	45970-8127	45970-8227	45970-8327	45970-8427	45970-8527	45970-8627	45970-8727
45	2.446	45970-9127	45970-9227	45970-9327	45970-9427	45970-9527	45970-9627	45970-9727

NOTES:
1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS
ROWS: 12
SOLDER CHARGE: TIN / LEAD
PACKAGING: TRAYS AND TAPE AND REEL

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2010/03/05 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 3 PLACES 2 PLACES 1 PLACE	mm	INCH	DRAWN BY TGREGOR I	DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS						
			± ---	± ---	CHECKED BY JCOMERC I	DATE							
			± ---	± .010	APPROVED BY JCOMERC I	DATE 2010/03/05							
			± ---	± .015	MOLEX INCORPORATED								
		ANGULAR ± ---°					DOCUMENT NO. SD-45970-001						
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SHEET NO. 10 OF 10						
					SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							
		M			REV								

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Rev. E 2006/04/15

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