

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0459702513

Status:

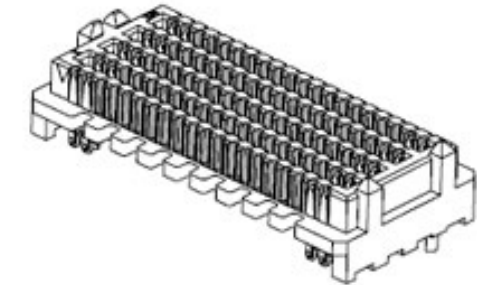
Active

Overview:

searay

Description:

1.27mm (.050") x 1.27mm (.050") Pitch SEARAY* Plug, 200 Circuits, 4.50mm (.196") Unmated Height, 10 Rows



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-Lead
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	Tray
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

Not RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

China RoHS

50

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

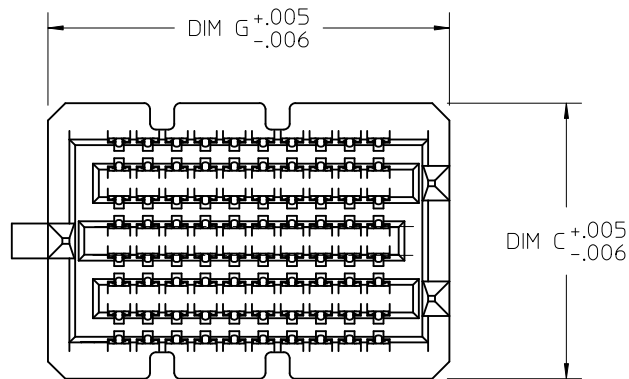
Duration at Max. Process Temperature (seconds)	3
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	230
Replacement RoHS Compliant Part Number	0459702511

Material Info

Reference - Drawing Numbers

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

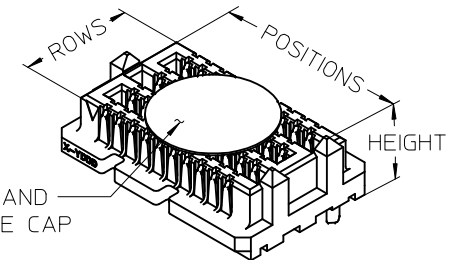
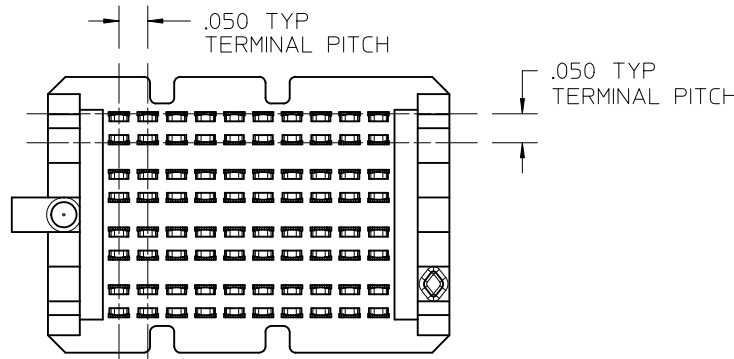
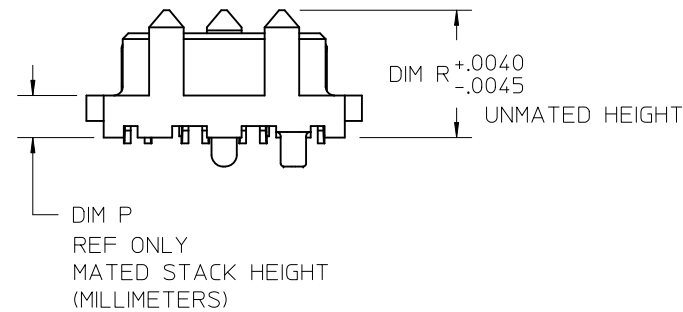
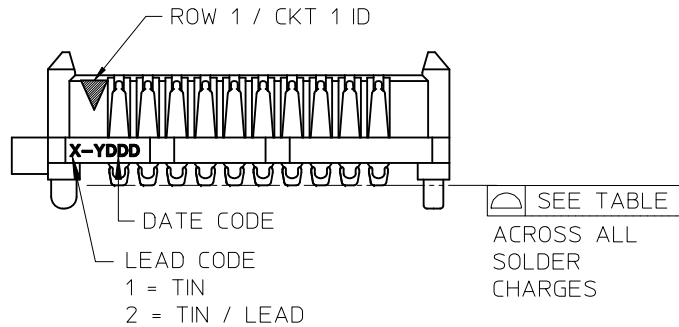
*SEARAY is a trademark of Samtec, Inc.



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

B

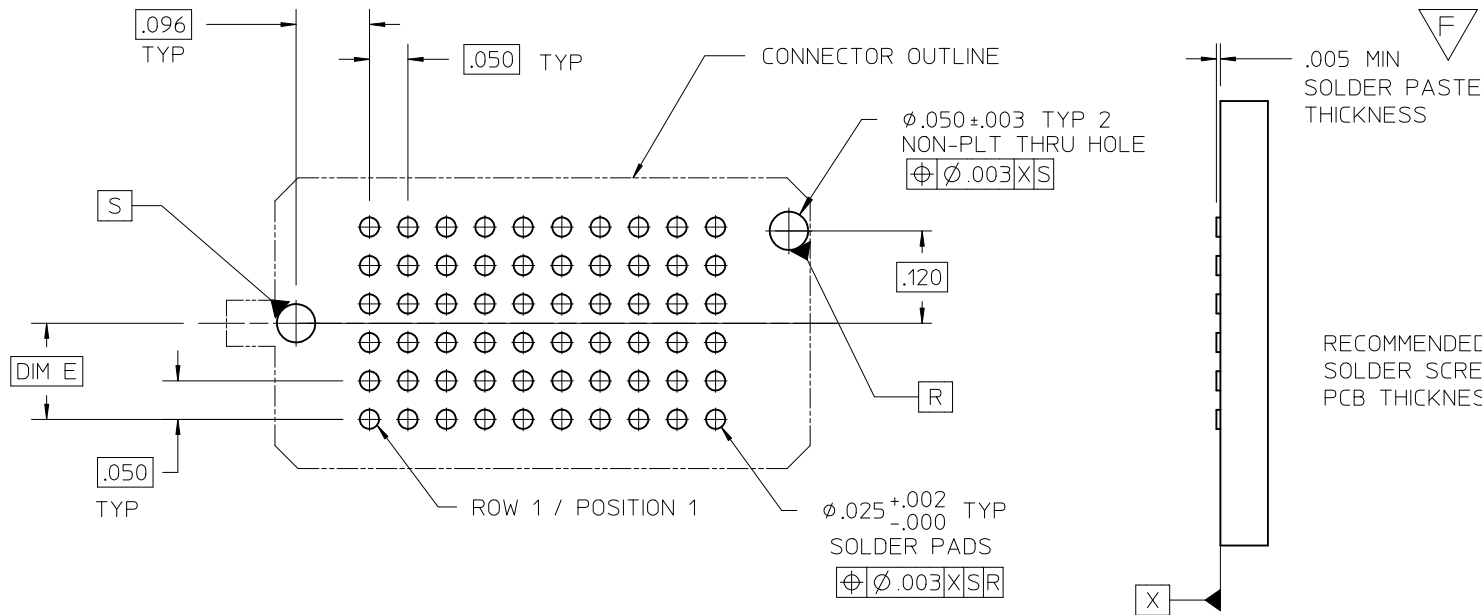
A

D

C

B

A

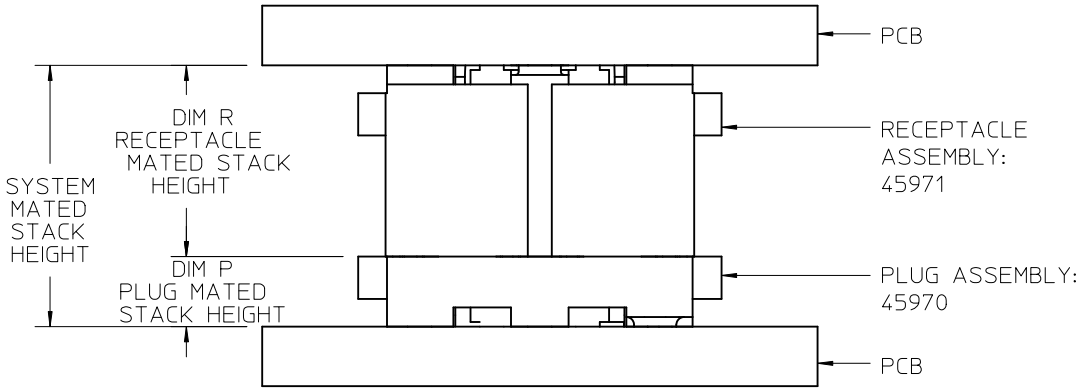


NO OF ROWS	DIM C	DIM E
6	.378	.125
8	.478	.175
10	.578	.225
12	.678	.275

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	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							DATE
		3 PLACES	± ---	± .010	APPROVED BY JCOMERC I		DATE 2010/03/05	 MOLEX INCORPORATED				
		2 PLACES	± ---	± .015								
		1 PLACE	± ---	± ---								
		ANGULAR ± ---°										
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					DOCUMENT NO. SD-45970-001			SHEET NO. 2 OF 10			
				SIZE A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

6			5		4		3		2		1					
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	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	45970-0165	45970-0265	45970-0365	45970-0465	45970-0565	45970-0665	45970-0765	B
		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: 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 TGREGORI	DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS				
		4 PLACES	± ---	± ---	CHECKED BY JCOMERC I						
		3 PLACES	± ---	± .010	APPROVED BY JCOMERC I						
		2 PLACES	± ---	± .015	DATE 2010/03/05		 MOLEX INCORPORATED				
		1 PLACE	± ---	± ---							
		ANGULAR ± ---°					DOCUMENT NO. SD-45970-001				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SHEET NO. 3 OF 10						
REV		SIZE A			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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							
		19	1.146	45970-0167	45970-0267	45970-0367	45970-0467	45970-0567	45970-0667	45970-0767							
		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							
A		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	REV	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH		THIRD ANGLE PROJECTION				
					4 PLACES	mm	INCH	DRAWN BY TGREGORI		DATE 2005/01/27	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS MOLEX INCORPORATED						
						3 PLACES	± ---	± .010	CHECKED BY JCOMERCI						DATE		
							2 PLACES	± ---	± .015	APPROVED BY JCOMERCI					DATE 2010/03/05		
								1 PLACE	± ---	± ---							
					ANGULAR ±---°												
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS															
		M					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		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		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	
		10	0.696	45970-1185		45970-1285		45970-1385		45970-1485		45970-1585		45970-1685		45970-1785	
		20	1.196	45970-2185		45970-2285		45970-2385		45970-2485		45970-2585		45970-2685		45970-2785	
		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	
		25	1.446	45970-7185		45970-7285		45970-7385		45970-7485		45970-7585		45970-7685		45970-7785	
		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		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 JCOMERCI		DATE						
					3 PLACES ± ---		± .010		APPROVED BY JCOMERCI		DATE 2010/03/05	 MOLEX INCORPORATED					
					2 PLACES ± ---		± .015		DOCUMENT NO. SD-45970-001		SHEET NO. 5 OF 10						
					1 PLACE ± ---		± ---		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						
					ANGULAR ± ---°												

6			5		4			3		2		1								
D	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	45970-0183		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	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	45970-0187		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																			
	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										
				mm	INCH	DRAWN BY	DATE	TITLE SEARAY PLUG ASSEMBLY .050 CENTERS												
			4 PLACES	± ---	± ---	TGREGORI	2005/01/27													
			3 PLACES	± ---	± .010	CHECKED BY	DATE													
			2 PLACES	± ---	± .015	JCOMERCI														
			1 PLACE	± ---	± ---	APPROVED BY	DATE													
			ANGULAR ±---°			JCOMERCI	2010/03/05	MOLEX INCORPORATED												
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							DOCUMENT NO.								SHEET NO.		
										SD-45970-001								6 OF 10		
			M	REV				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			

6

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2

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D

C

B

A

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

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

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	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	SEARAY PLUG ASSEMBLY .050 CENTERS					
		4 PLACES	± ---	± ---	CHECKED BY JCOMERCI	DATE						
		3 PLACES	± ---	± .010	APPROVED BY JCOMERCI							DATE 2010/03/05
		2 PLACES	± ---	± .015								
		1 PLACE	± ---	± ---	ANGULAR ± ---°		MOLEX INCORPORATED					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS										
		M	REV				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

		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: TREGOR 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 TREGOR 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 ± ---°													
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					DOCUMENT NO. SD-45970-001			SHEET NO. 8 OF 10					
							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 REV		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 MOLEX INCORPORATED			
						4 PLACES ± ---		± ---		CHECKED BY JCOMERCI		DATE					
						3 PLACES ± ---		± .010		APPROVED BY JCOMERCI		DATE 2010/03/05					
						2 PLACES ± ---		± .015		DOCUMENT NO. SD-45970-001		SHEET NO. 9 OF 10					
						1 PLACE ± ---		± ---		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			
						ANGULAR ±---°											
						</											

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	45970-0123	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				
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	45970-0127	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				
A	NOTES: 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS ROWS: 12 SOLDER CHARGE: TIN / LEAD PACKAGING: TRAYS AND TAPE AND REEL											A		
	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				
				mm	INCH	DRAWN BY TGREGORI	DATE 2005/01/27	TITLE 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						
								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							
			tb_frame_A_P_AM_T Rev. E 2006/04/15		5	4	3	2	1					