

SEAM-XX-XX-X-XX-X-RA-XX-TR

No. OF POSITIONS
-20,-30,-40,-50
(PER ROW)

LEAD STYLE
-01

PLATING SPECIFICATION
-S: SELECTIVE GOLD,
MATTE TIN ON TAILS
(USE SUB-IM-T-1M64-01-XX-S-X)
-L: LIGHT SELECTIVE GOLD,
MATTE TIN ON TAILS
(USE SUB-IM-T-1M64-XX-L-X)

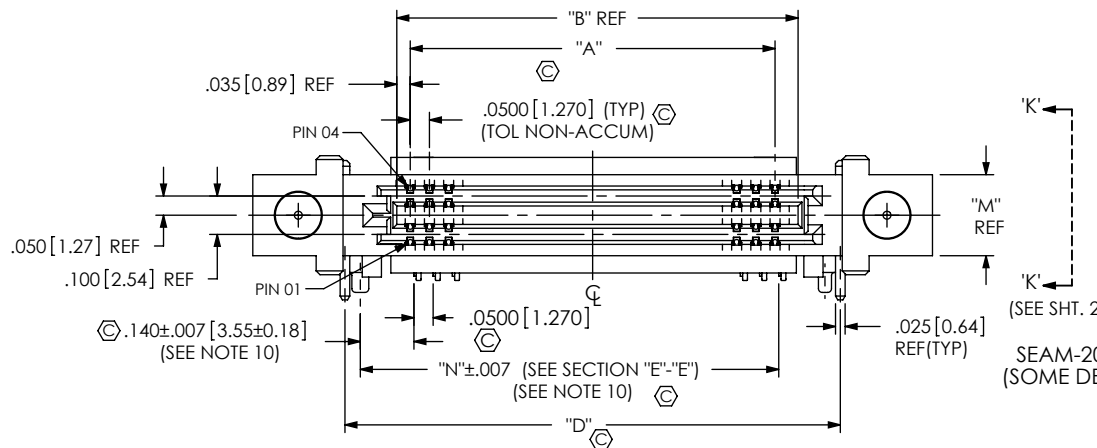
No. OF ROWS
-04,-06,*08,*10
(* = SEE NOTE 9)

PACKAGING
-TR: TAPE & REEL
(STANDARD PACKAGING)
(SEE NOTE 4 AND 7)

OPTIONS
-GP: GUIDE POST
(SEE NOTE 12)
-K: KAPTON PAD

RIGHT ANGLE
-RA

SOLDER COMPOSITION & STYLE
-1: 63% TIN / 37% LEAD CHARGE TAIL
(USE SUB-IM-T-1M64-XX-XX-X-1)
-2: 95.5% TIN / 3.8 SILVER / 0.7% COPPER
LEAD FREE CHARGE TAIL
(USE SUB-IM-T-1M64-XX-XX-X-2)



PATENT NUMBERS
7,052,337 / 7,125,293
7,172,438 / 7,377,795
7,837,522

TABLE 7

STYLE	No. OF ROWS	"M"
WITH -GP	-04	0.211 [5.36]
OPTION	-06	0.311 [7.90]
	-08	0.411 [10.44]
	-10	0.511 [12.98]

(* = SEE NOTE 9)

TABLE 3

STYLE	No. OF POS PER ROW	"G"	"H"
WITH -GP OPTION	-20	1.533 [38.94]	1.770 [44.96]
	-30	2.033 [51.64]	2.270 [57.66]
	-40	2.533 [64.34]	2.770 [70.36]
	-50	3.033 [77.04]	3.270 [83.06]
WITHOUT -GP OPTION	-20	N/A	1.440 [36.58]
	-30	N/A	1.940 [49.28]
	-40	N/A	2.440 [61.98]
	-50	N/A	2.940 [74.68]

FIG 1
SEAM-20-01-X-04-X-RA-GP SHOWN
(SOME DETAIL OMITTED FOR CLARITY)

TABLE 2

No. OF ROWS	"BODY CALLOUT"	"TERMINAL WAFER"	"WELD TAB"	"C"
-04	SEAM-XX-01-RA-04-XX	SUB-IM-T-1M64-01-04-X-X	WT-28-01-T	0.205 [5.21]
-06	SEAM-XX-01-RA-06-XX	SUB-IM-T-1M64-01-06-X-X	WT-28-02-T	0.305 [7.75]
*08	SEAM-XX-01-RA-08-XX	SUB-IM-T-1M64-01-08-X-X	WT-83-01-T	0.405 [10.29]
*10	SEAM-XX-01-RA-10-XX	SUB-IM-T-1M64-01-10-X-X	WT-83-02-T	0.505 [12.83]

(* = SEE NOTE 9)

TABLE 1


No. OF POS. PER ROW	"A"	"B"	"D"	"E"	"F"	"N"
-20	0.950 [24.13]	1.045 [26.54]	1.290 [32.77]	1.210 [30.73]	1.196 [30.38]	1.090 [27.69]
-30	1.450 [36.83]	1.545 [39.24]	1.790 [45.47]	1.710 [43.43]	1.696 [43.08]	1.590 [40.39]
-40	1.950 [49.53]	2.045 [51.94]	2.290 [58.17]	2.210 [56.13]	2.196 [55.78]	2.090 [53.09]
-50	2.450 [62.23]	2.545 [64.64]	2.790 [70.87]	2.710 [68.83]	2.696 [68.48]	2.590 [65.79]

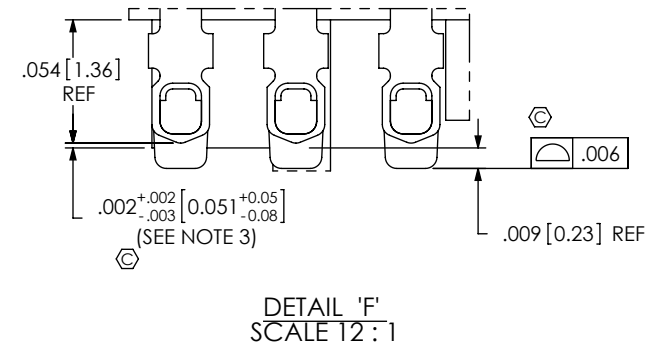
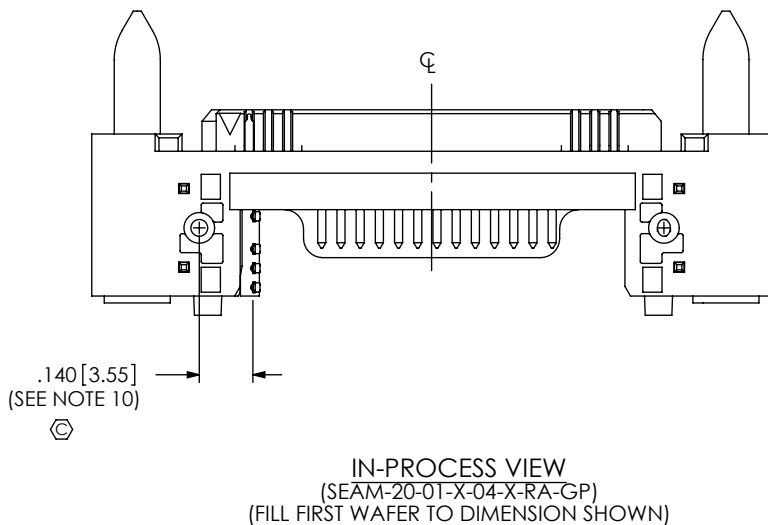
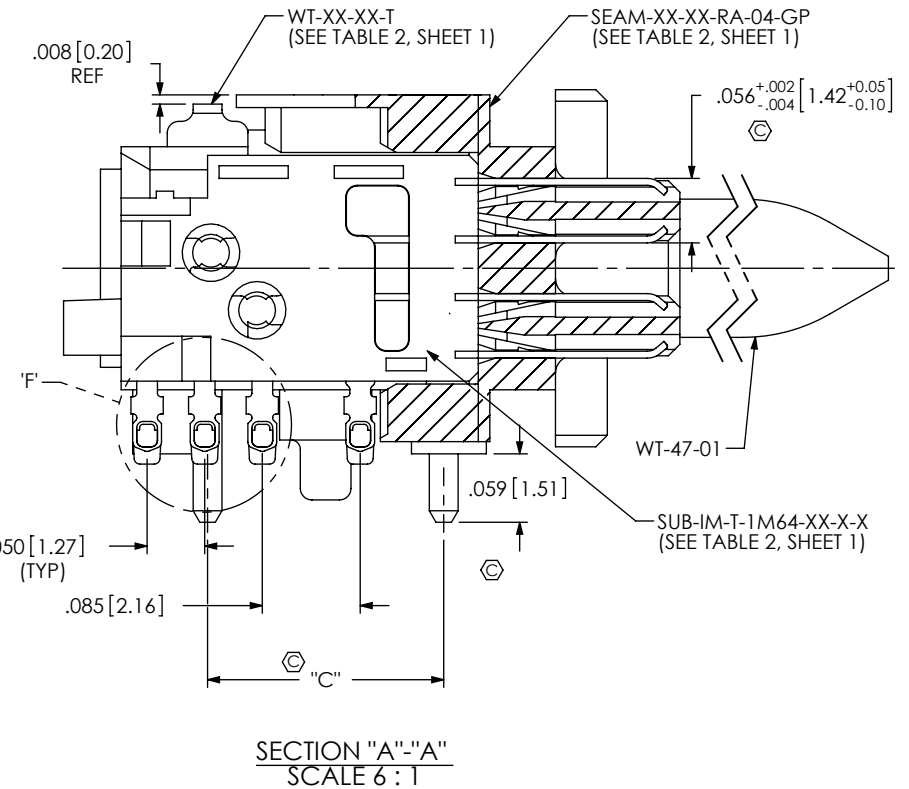
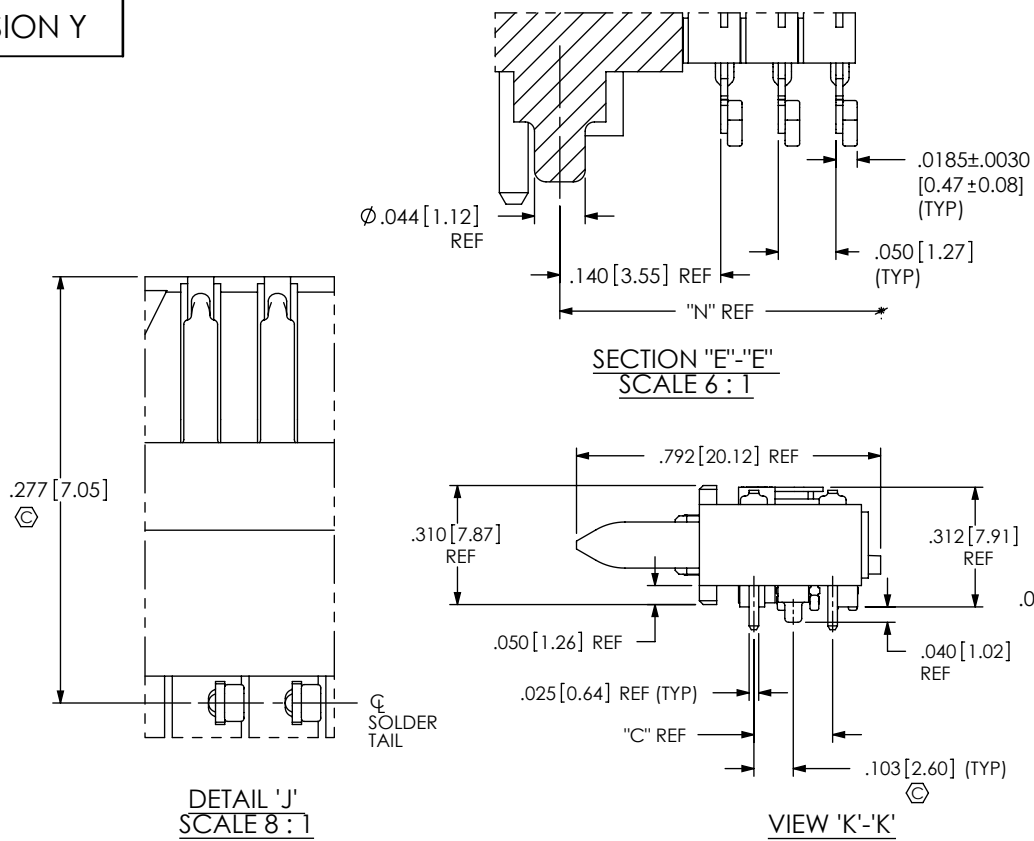
TABLE 8

No. OF ROWS	"L"				"BACK STRAP"
	20 POS	30 POS	40 POS	50 POS	
-04	1.174 [29.82]	1.674 [42.52]	2.174 [55.22]	2.674 [67.92]	N/A
-06, *08, *10	N/A	N/A	N/A	N/A	SEAX-RA-BS-XX-01

(* = SEE NOTE 9)

- NOTES:
1. C REPRESENTS A CRITICAL DIMENSION.
 2. MINIMUM PUSH-OUT FORCE: .50 LBS [2.2N].
 3. INSPECT DIMENSION AT FIRST POSITION WAFER LOCATION ONLY. FIRST AND LAST PIN.
 4. FINISHED ORDER QUANTITY LESS THAN 125 PIECES AND NOT IN FULL REEL INCREMENTS WILL NOT HAVE A LEADER ON TRAILER OR TRAILER AND MAY NOT BE ON A REEL.
 5. NOTE DELETED
 6. NOTE DELETED
 7. ATTACH LABEL "SEAX-0001" TO EACH TAPE & REEL PACKAGE.
 8. NOTE DELETED
 9. ON -08 & -10 ROW ASSEMBLIES. SEE FIG 8, SHEET 5 FOR CAT FIXTURE VIEW
 10. CHECK DIMENSION ON FIRST AND LAST ROW OF TAILS.
 11. A 20-30°C TEMPERATURE DIFFERENCE MAY EXIST BETWEEN THIS HIGH-DENSITY COMPONENT AND THE BOARD SURFACE DURING REFLOW. SAMTEC RECOMMENDS A THERMAL STUDY BE PERFORMED TO UNDERSTAND THE TEMPERATURE GRADIENTS YOU MAY EXPERIENCE
 12. MINIMUM GUIDE POST PUSH-OUT FORCE: 4 LBS [17.8N].
 13. SOME RELAXATION/WARPING OF THE BACKSTRAP IS ACCEPTABLE AFTER PROCESSING.
 14. SEE SHEET 5 FOR PROCESSING INFORMATION.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	PROPRIETARY NOTE THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO SAMTEC, INC. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF SAMTEC, INC.	 520 PARK EAST BLVD, NEW ALBANY, IN 47150 PHONE: 812-944-6733 FAX: 812-948-5047 e-Mail: info@SAMTEC.com code 53322
TOLERANCES ARE: DECIMALS ANGLES .XX: ±.01 [.3] .XXX: ±.005 [.13] .XXXX: ±.0020 [.051]	DO NOT SCALE DRAWING SHEET SCALE: 2:1	
MATERIAL: INSULATOR: LCP COLOR: BLACK CONTACT: PHOS BRONZE .006 THICK		DESCRIPTION: SEAM-RA ASSEMBLY DWG. NO. SEAM-XX-XX-X-XX-X-RA-XX-TR
		BY: R MUSSER 06/27/2008 SHEET 1 OF 5



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DESCRIPTION:
SEAM-RA ASSEMBLY
 DWG. NO.
SEAM-XX-XX-X-XX-X-RA-XX-TR

BY: R MUSSER 06/27/2008 SHEET 2 OF 5

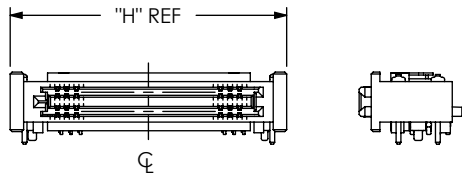
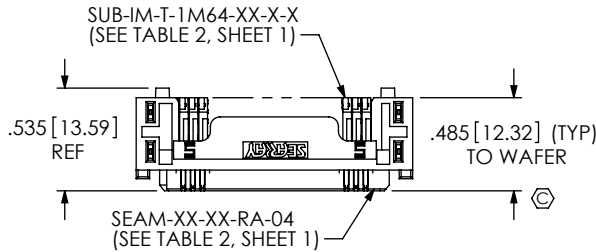


FIG 2
(SEAM-20-01-X-04-X-RA SHOWN)
(SAME AS FIG 1 EXCEPT AS NOTED)
(SOME DETAIL REMOVED FOR CLARITY)

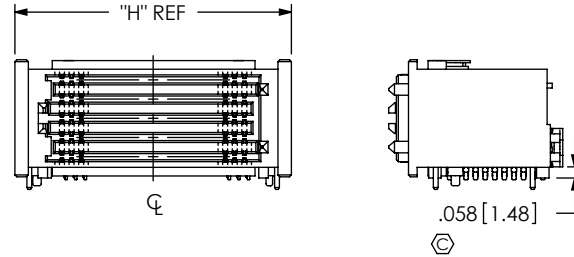
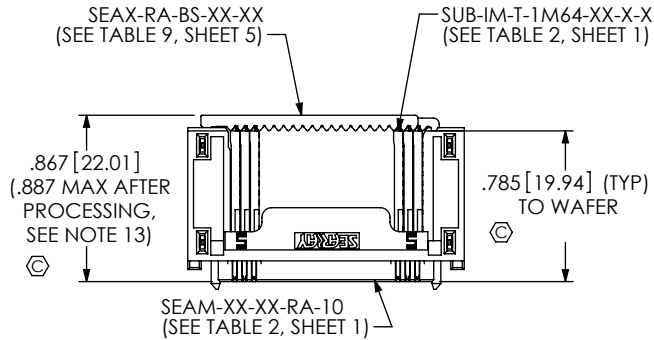


FIG 7
(SEAM-20-01-X-10-X-RA SHOWN)
(SAME AS FIG 4 EXCEPT AS NOTED)
(SOME DETAIL REMOVED FOR CLARITY)

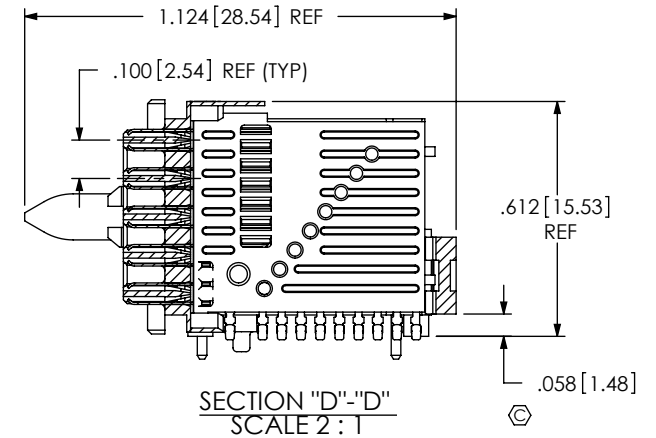
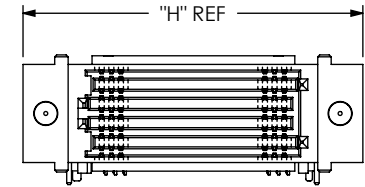
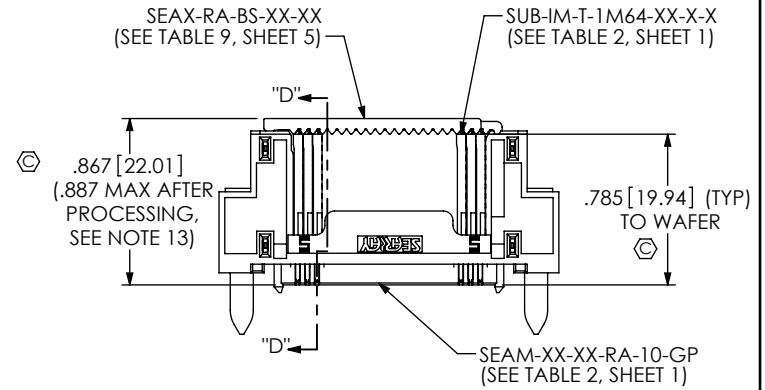


FIG 4
(SEAM-20-01-X-10-X-RA-GP)
(SAME AS FIG 1 EXCEPT AS NOTED)
(SOME DETAIL REMOVED FOR CLARITY)

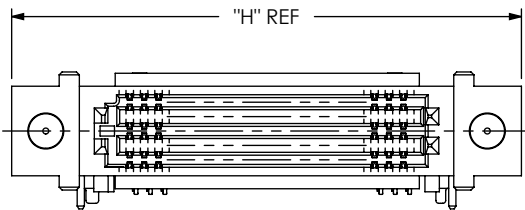
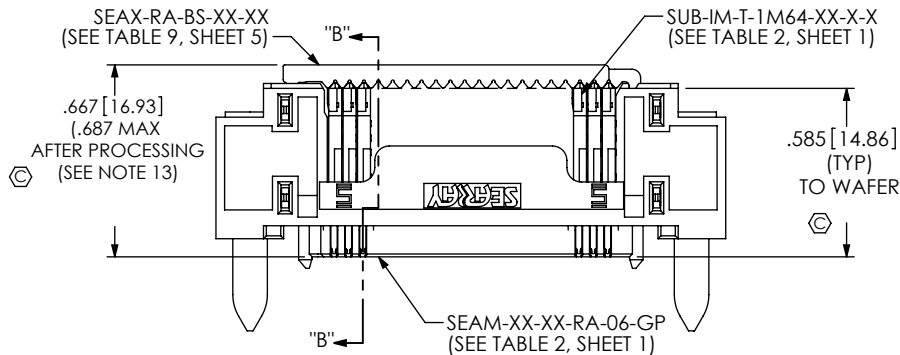
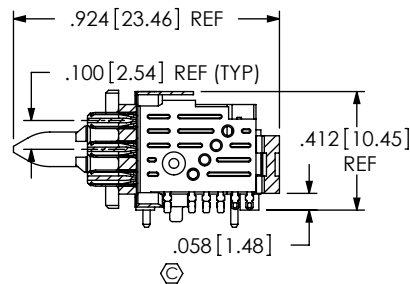


FIG 3
(SEAM-20-01-X-06-X-RA-GP)
(SAME AS FIG 1 EXCEPT AS NOTED)
(SOME DETAIL REMOVED FOR CLARITY)



SECTION "B"-"B"
SCALE 1.5:1

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DESCRIPTION:

SEAM-RA ASSEMBLY

DWG. NO.

SEAM-XX-XX-X-XX-X-RA-XX-TR

BY: R MUSSER 06/27/2008 SHEET 3 OF 5

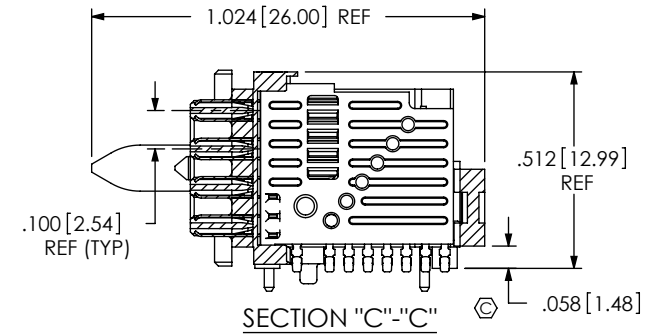
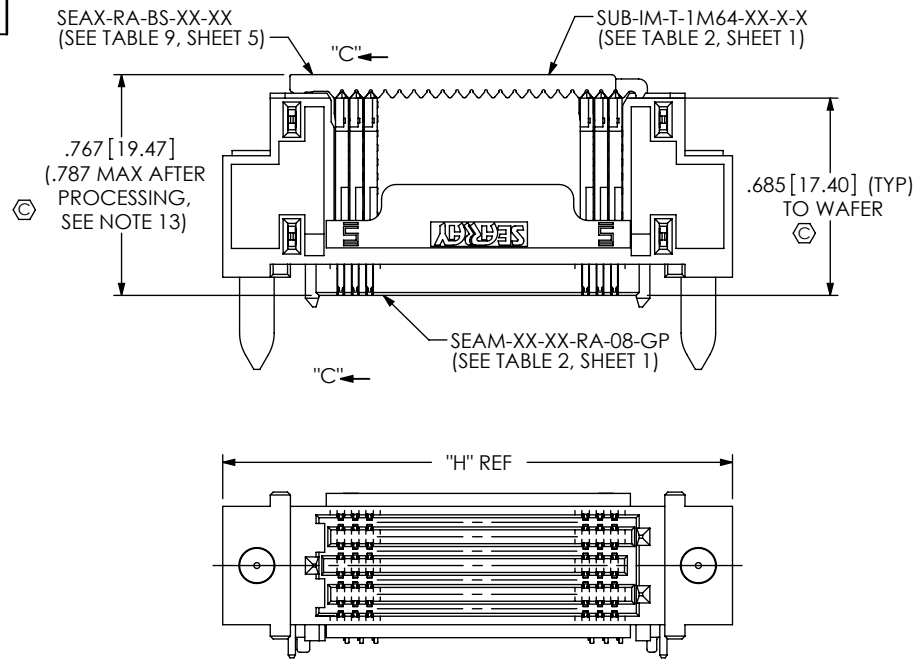


FIG 5
(SEAM-20-01-X-08-X-RA-GP)
(SAME AS FIG 1 EXCEPT AS NOTED)
(SOME DETAIL REMOVED FOR CLARITY)

ROWS	"K"		"P" DIA.		"J" NO -GP OPTION				"J" WITH -GP OPTION				"Q"
					20 POS	30 POS	40 POS	50 POS	20 POS	30 POS	40 POS	50 POS	
-04	.317	[8.05]	.295	[7.49]	.573 [14.54]	.823 [20.89]	1.073 [27.24]	1.323 [33.59]	.738 [18.73]	.988 [25.08]	1.238 [31.43]	1.488 [37.78]	.128 [3.25]
-06	.417	[10.59]	.295	[7.49]	.573 [14.54]	.823 [20.89]	1.073 [27.24]	1.323 [33.59]	.738 [18.73]	.988 [25.08]	1.238 [31.43]	1.488 [37.78]	.128 [3.25]
-08	.524	[13.31]	.649	[16.48]	.396 [10.05]	.646 [16.40]	.896 [22.75]	1.146 [29.10]	.561 [14.24]	.811 [20.59]	1.061 [26.94]	1.311 [33.29]	.030 [0.76]
-10	.624	[15.85]	.649	[16.48]	.396 [10.05]	.646 [16.40]	.896 [22.75]	1.146 [29.10]	.561 [14.24]	.811 [20.59]	1.061 [26.94]	1.311 [33.29]	.030 [0.76]

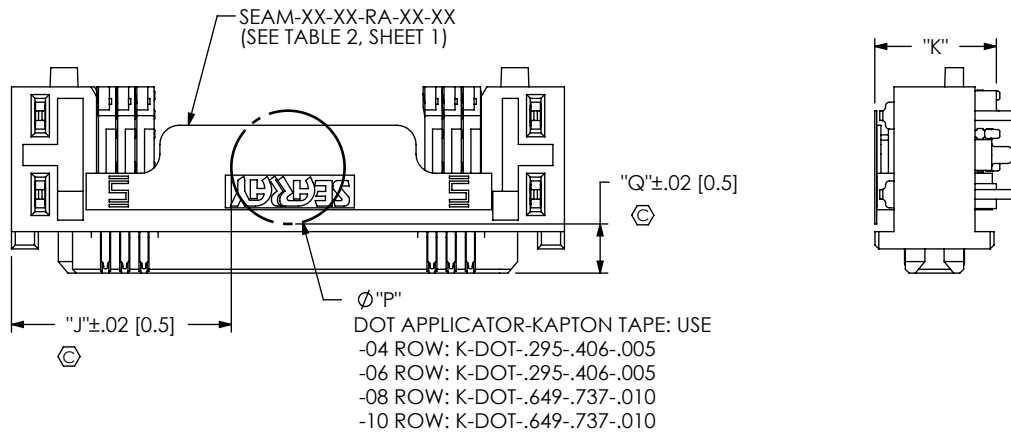


FIG 6
-K' OPTION
(USE K-DOT-.XXX-.XXX-.XXX)
(SEAM-20-01-X-04-X-RA-K SHOWN)

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DESCRIPTION:
SEAM-RA ASSEMBLY
DWG. NO.
SEAM-XX-XX-X-XX-X-RA-XX-TR
BY: R MUSSER 06/27/2008 SHEET 4 OF 5

NOTE:
 FIG 8, DIMENSION "R" INDICATES CONNECTOR/FIXTURE HEIGHT ON PCB.
 TO GUARANTEE ENOUGH REFLOW OVEN WORKING SPACE, DIMENSION "R",
 PCB THICKNESS, AND THE HEIGHT OF THE COMPONENTS ON THE OPPOSITE
 SIDE OF THE BOARD NEED TO BE CONSIDERED.

TABLE 10		
SEARAY FIXTURE TOOLS		
PART NUMBER	POSITIONS	ROW
CAT-SEAM-20-08-RA	-20	-08
CAT-SEAM-30-08-RA	-30	-08
CAT-SEAM-40-08-RA	-40	-08
CAT-SEAM-50-08-RA	-50	-08
CAT-SEAM-20-10-RA	-20	-10
CAT-SEAM-30-10-RA	-30	-10
CAT-SEAM-40-10-RA	-40	-10
CAT-SEAM-50-10-RA	-50	-10

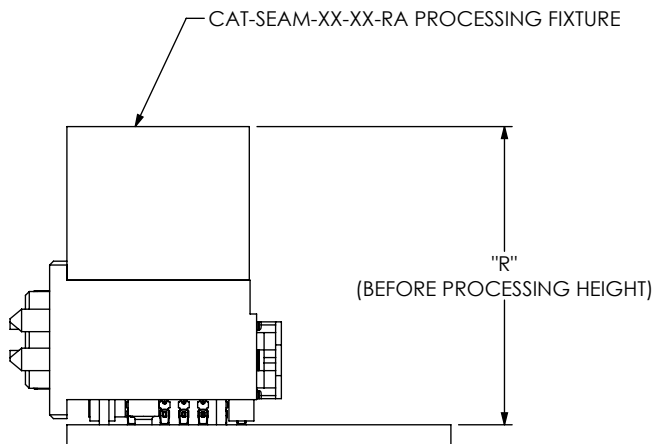


TABLE 6	
ROW	"R"
-08	.877 [22.28]
-10	.977 [24.82]

FIG 8
 SEAM-RA PROCESSING FIXTURE
 (USE CAT-SEAM-XX-XX-RA FIXTURE)

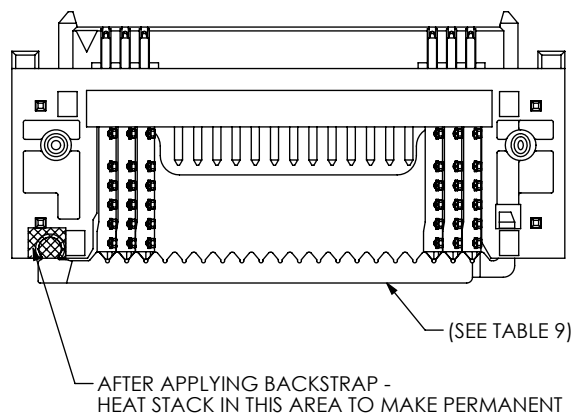



TABLE 9	
No. OF POSITIONS	"BACKSTRAP"
-20	SEAX-RA-BS-20-01
-30	SEAX-RA-BS-30-01
-40	SEAX-RA-BS-40-01
-50	SEAX-RA-BS-50-01

FIG 9
 HEAT STAKING BACKSTRAP

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	<p>DESCRIPTION:</p> <p>SEAM-RA ASSEMBLY</p>	
	<p>DWG. NO.</p> <p>SEAM-XX-XX-X-XX-X-RA-XX-TR</p>	
	<p>BY: R MUSSER 06/27/2008</p>	<p>SHEET 5 OF 5</p>