DO NOT
SCALE FROM
THIS PRINT

NOTES:
1. Ⓒ REPRESENTS A CRITICAL DIMENSION.
2. MAXIMUM POST HEIGHT VARIATION: .005[0.13].
3. LOAD PARTS POS 1 IN SAME DIRECTION AS ARROW.
4. TUBE POSITIONS 03 THRU 50.
5. TAPE & REEL AVAILABLE ON POSITION 02 THRU 28 ONLY.
   LEADS MAY NOT BE VISIBLE FOR CUSTOMER'S VISUAL
   INSPECTION ON SMALLER POSITIONED PARTS WHEN USED
   WITH THE -P OR -M OPTIONS.
6. MEASURE AT BEND RADIUS.
7. MINIMUM PUSHOUT FORCE: 3 LBS.
8. FOR -TV USE T-31724-01.
9. DUE TO THE HIGH AMOUNT OF INSERTION FORCE NEEDED,
   THE -LC OPTION IS NOT COMPATIBLE WITH AUTO PLACEMENT.
   SAMTEC RECOMMENDS MANUAL PLACEMENT FOR ALL
   ASSEMBLIES WITH THE -LC OPTION.
10. ONLY AVAILABLE ON -01-DV OPTION, MATES ONLY WITH
    SSM, SSW, SSQ, BCS, ESW AND ESQ.
11. MAXIMUM ALLOWABLE CUT FLASH .010[0.25],
    .015[0.38] ALLOWED TOWARDS TAILS.
12. THIS DIMENSION TO BE MEASURED RELATIVE TO DATUM -Z-.

TSM-1XX-XX-XXX-XX-X-XXX-X

No OF POSITIONS
-02 THRU -50

LEAD STYLE
(SEE TABLE 1)

PLATING SPECIFICATION
-T: MATTE TIN ON ENTIRE PIN.
-S: 30µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-G: 10µ" SELECTIVE GOLD IN CONTACT AREA,
    3µ" SELECTIVE GOLD ON TAIL.
-L: 10µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-TL: TIN/LEAD (90/10) ON ENTIRE PIN.
-STL: 30µ" SELECTIVE GOLD IN CONTACT AREA,
    TIN/LEAD (90/10) ON TAIL.
-F: 3µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-H: 30µ" SELECTIVE GOLD IN CONTACT AREA,
    3µ" SELECTIVE GOLD ON TAIL.
-TM: MATTE TIN ON ENTIRE PIN.
-SM: 30µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-LM: 10µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-FM: 3µ" SELECTIVE GOLD IN CONTACT AREA,
    MATTE TIN ON TAIL.
-SS: 30µ" STRIPE SELECTIVE GOLD IN CONTACT
    AREA, MATTE TIN ON TAIL. (SEE NOTE 10)

OPTION #3
(NOT AVAILABLE WITH -TV & -TM MOUNT STYLES)
-P: PICK AND PLACE PAD
    (POS -04 THRU -36, 50 USE PPP-06,
    SEE FIG4, SHT 2)
    (POS -02, USE PPP-81, SEE FIG 9, SHT 2)
    (POS -03, USE PPP-86, SEE FIG 10, SHT 2)
  * (AVAILABLE ON POS -02 & -03 WITH -TR OPTION ONLY)
-M: METAL PICK AND PLACE PAD
    * FOR EXISTING CUSTOMERS ONLY
    (USE LMP-01, SEE FIG 5, SHT 2)
    (NOT RECOMMENDED WITH -T OR -TM PLATING)
    (LEAD STYLES -01 & -04 ONLY)
    (AVAILABLE ON POS 04 THRU 36)
    (AVAILABLE ON POS 02 AND 03 WITH -TR
    OPTION ONLY, SEE NOTE 5)
-TR: TAPE AND REEL (SEE FIG 8, SHT 3)
    (02 THRU 28 POS)

OPTION #2
POLARIZED POSITION
SPECIFY OMITTED PIN

OPTION #1
(AVAILABLE FOR -DV MOUNT STYLE ONLY)
-LC: LOCKING CLIP (SEE FIG 2, SHT 2)
    (USE LC-05-TM)
    (-03 THRU -36 POS, USE 2 PER STRIP)
    (-02 POS, USE 1 PER STRIP)
    (USE RTSM-XX-DVU)
    (SEE NOTE 9)
-A: ALIGNMENT PIN (SEE FIG 3, SHT 2)
    (FOR MOLDED TO POSITION, USE RTSM-XX-DVU-XX BODY)
    (FOR STAKED, USE RTSM-50-DVU BODY, 5 POS MIN)
    (LEAVE BLANK FOR NO HOLD DOWN OPTION)
    USE RTSM-50-DVU SEE FIG 1, CAN BE CUT TO POSITION)

MOUNT STYLE
-DV: DOUBLE VERTICAL
* -TV: TRIPLE VERTICAL (-02 THRU -30 ONLY)
    (USE HTSW-50-T-LCP, SEE NOTE 8)
-TM: TRIPLE MIXED TECHNOLOGY (-02 THRU -30 ONLY)
    (USE HTSW-50-T-LCP, AVAILABLE ON -01 LEAD STYLE ONLY)

* = FOR EXISTING CUSTOMERS ONLY

TABLE 5		
MOUNT STYLE	POSITIONS	COPLANARITY
-DV	-02 THRU -05	.004 [0.10]
	-06 THRU -10	.005 [0.13]
	-11 THRU -50	.006 [0.15]
-TV & -TM	-02 THRU -10	.004 [0.10]
	-11 THRU -20	.005 [0.13]
	-21 THRU -30	.006 [0.15]

Ⓒ
(NO OF POS x .100[2.54]) +.000[0.00] / -.015[0.38]

(NO OF POS -1) x .100[2.54]

02
01 03

"C" MAX
(SEE TABLE 1)

Ⓒ

RTSM-50-DVU

.200 [5.08] REF

5° MAX SWAY
(EITHER DIRECTION)

.025[0.64] SQ
REF (TYP)

2° MAX SWAY
(EITHER DIRECTION)

Ⓒ

.100[2.54] REF

FIG 1
TSM-1XX-XX-XXX-DV SHOWN

2° MAX SWAY
(EITHER DIRECTION)

.100[2.54]

"B"
(SEE TABLE 1
& NOTE 2)

SEE TABLE 5

Ⓒ

3° (SEE NOTE 12)

5° (SEE NOTE 12)

-Z-

.050±.010[1.27±0.25] (TYP)
(SEE NOTE 6)

"B"
(SEE TABLE 1
& NOTE 2)

IN-PROCESS
-DV MOUNT STYLE
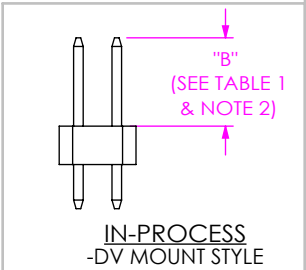
TABLE 1						
LEAD STYL	MOUNT STYLE	"B"	"C"	"D"	TERMINAL	OVERALL PIN LENGTH
-01	-DV	0.230 [5.84]	0.303 [7.70]	0.280 [7.11]	T-1S6-16-X-2	0.445 [11.30] REF
	-TM, -TV	0.230 [5.84]	---	---	T-1S6-17-X-2	0.480 [12.19] REF
-02	-DV	0.320 [8.13]	0.293 [7.44]	0.370 [9.40]	T-1S6-08-X-2	0.530 [13.46] REF
-03	-DV	0.420 [10.67]	0.293 [7.44]	0.470 [11.94]	T-1S6-15-X-2	0.630 [16.00] REF
-04	-DV	0.120 [3.05]	0.303 [7.70]	0.270 [6.86]	T-1S6-21-X-2	0.335 [8.51] REF
-05	-DV	0.075 [1.91]	0.323 [8.20]	0.270 [6.86]	T-1S6-18-X-2	0.300 [7.62] REF

UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
DECIMALS   ANGLES
.XX: ±.01 [.3]   2°
.XXX: ±.005 [.13]
.XXXX: ±.0020 [.051]

MATERIAL:
DO NOT SCALE DRAWING
INSULATOR: LCP, UL94VO, COLOR: BLACK
TERMINAL: PHOS BRONZE

SHEET SCALE: 2:1

SAMTEC
520 PARK EAST BLVD, NEW ALBANY, IN 47150
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e-Mail info@SAMTEC.com   code 55322

DESCRIPTION:
DOUBLE ROW GULLWING ASM

DWG. NO.
TSM-1XX-XX-XXX-XX-X-XXX-X

BY: BRYANT   04/24/1991   SHEET 1 OF 3

F:\DWG\MISC\MKTG\TSM-1XX-XX-XXX-XX-X-XXX-X-MKT.SLDDRW

TABLE 3			
	"A"	BODY	MIN NO OF POS
MOLDED	.100[2.54] REF	RTSM-50-DVU-X	2
*STAKED	.100[2.54]	RTSM-50-DVU-X	5

* = USE TWO SM-AH'S

.045[1.14] REF

.110[2.79]

(NO OF POS -2) x .100[2.54]

LC-05-TM

2° MAX SWAY
(EITHER DIRECTION)
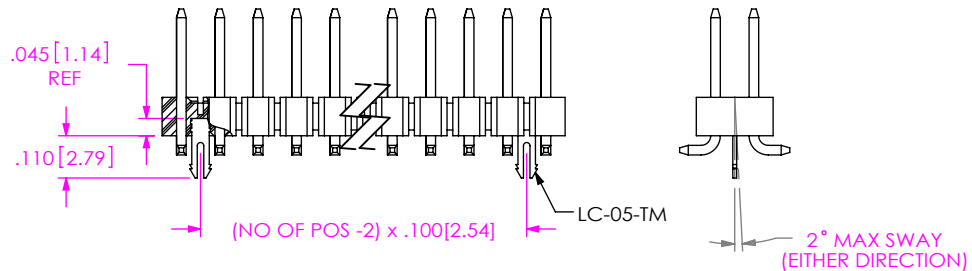
FIG 2
-LC: LOCKING CLIP
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

(SEE TABLE 3)

"A"

(NO OF POS -2) x .100[2.54]

.063[1.60] REF

.048[1.21] REF

2° MAX SWAY
(EITHER DIRECTION)
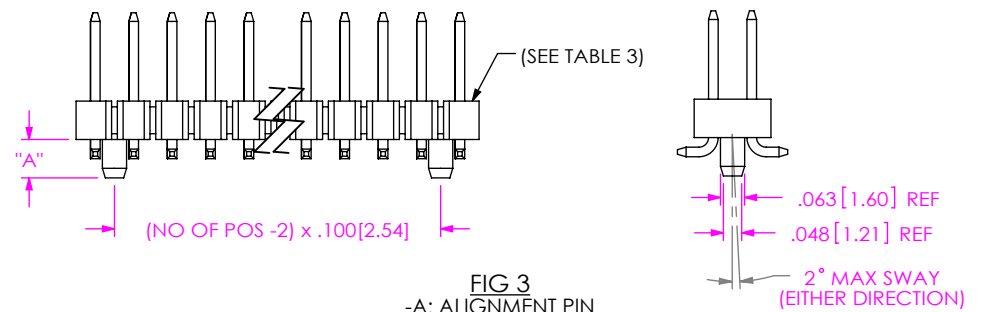
FIG 3
-A: ALIGNMENT PIN
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

"G"±.020[0.51]

.390[9.91] REF

PPP-06

"D"±.010[0.13]

.270[6.86] REF
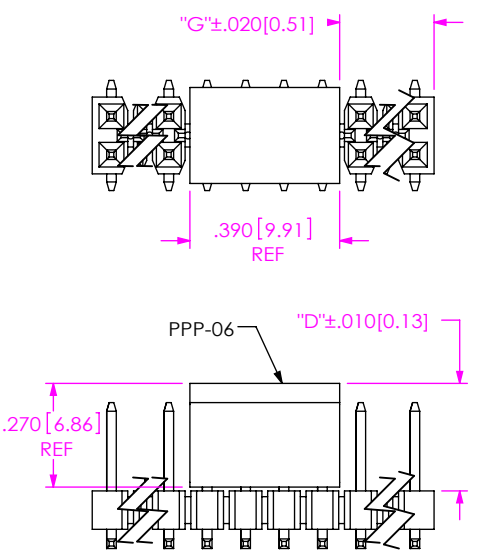
FIG 4
-P: PICK AND PLACE PAD
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

"G" = ((NO OF POS x .100[2.54]) - .390[9.91])/2

"H"±.020[0.51]

.157[3.99] REF

PPP-81

.270[6.86] REF

"D"±.010
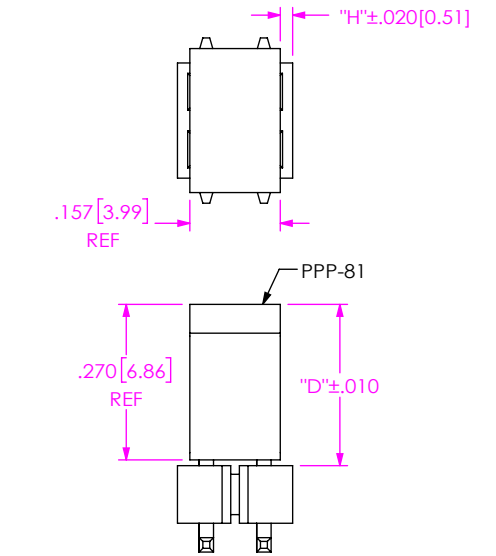
FIG 9
-P: PICK AND PLACE PAD
(-02 POS ONLY)
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

"H" = ((NO OF POS x .100[2.54]) - .157[3.99])/2

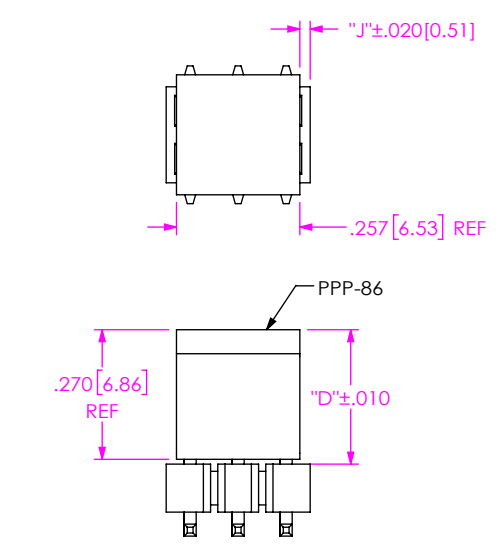"J"±.020[0.51]

.257[6.53] REF

PPP-86

.270[6.86] REF

"D"±.010

FIG 10
-P: PICK AND PLACE PAD
(-03 POS ONLY)
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

"J" = ((NO OF POS x .100[2.54]) - .257[6.53])/2

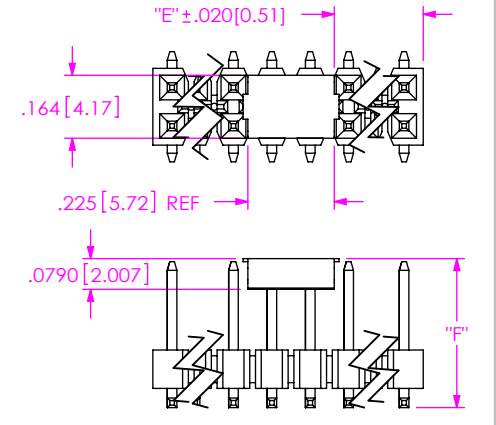| TABLE 2	
LEAD STYLE	"F"
-01	0.388[9.86]
-04	0.278[7.06]

"E"±.020[0.51]

.164[4.17]

.225[5.72] REF

.0790[2.007]

"F"

FIG 5
-M: METAL PICK AND PLACE PAD
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
"E"=((NO OF POS x .100[2.54]) - .225[5.72]) / 2

NOTE:
HAND FILL USE LMP-01
MACHINE FILL USE LMP-01

DO NOT SCALE DRAWING

SHEET SCALE: 2:1

SAMTEC

520 PARK EAST BLVD, NEW ALBANY, IN 47150
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e-Mail info@SAMTEC.com   code 55322

DESCRIPTION:
DOUBLE ROW GULLWING ASM

DWG. NO.
TSM-1XX-XX-XXX-XX-X-XXX-X

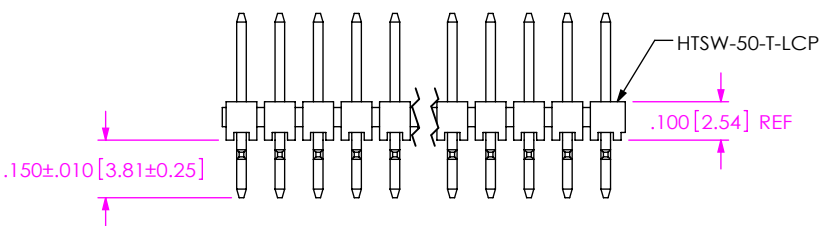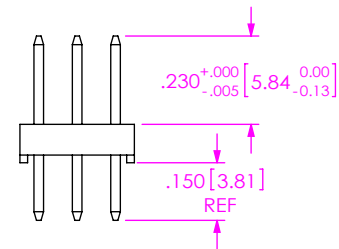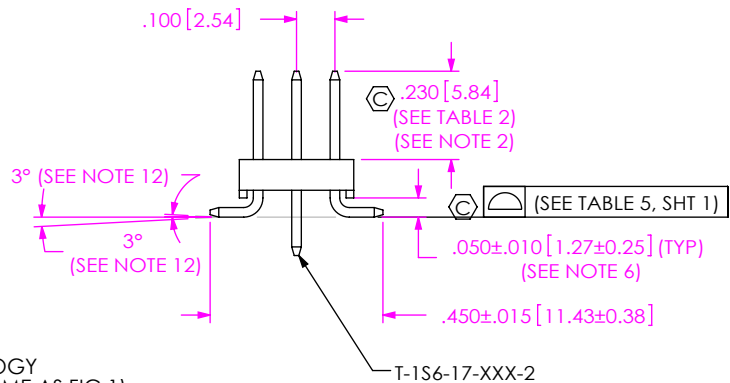BY: BRYANT   04/24/1991   SHEET 2 OF 3

REVISION DO

HTSW-50-T-LCP

.100[2.54] REF

.150±.010[3.81±0.25]

FIG 6
-TM: TRIPLE MIXED TECHNOLOGY
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

.100[2.54]

.230[5.84]
(SEE TABLE 2)
(SEE NOTE 2)

3° (SEE NOTE 12)

3°
(SEE NOTE 12)

(SEE TABLE 5, SHT 1)

.050±.010[1.27±0.25] (TYP)
(SEE NOTE 6)

.450±.015[11.43±0.38]

T-1S6-17-XXX-2

IN-PROCESS
-TM MOUNT STYLE

$.230^{+.000}_{-.005}[5.84^{0.00}_{-0.13}]$

.150[3.81]
REF

.1000[2.540]
REF (TYP)

.0490[1.245]
REF (TYP)

.020[0.51]
REF (TYP)

.050[1.27]
REF (TYP)

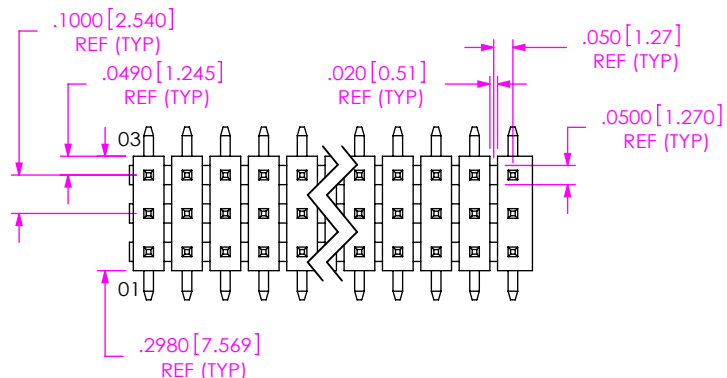.0500[1.270]
REF (TYP)

03

01

.2980[7.569]
REF (TYP)

FIG 7
-TV: TRIPLE VERTICAL
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)
FOR EXISTING CUSTOMERS ONLY

(SEE TABLE 5, SHT 1)

.050±.010[1.27±0.25]

ROUND HOLES

PIN 1

OBLONG HOLES

USER DIRECTION OF UNREELING

POCKET NOT DETAILED
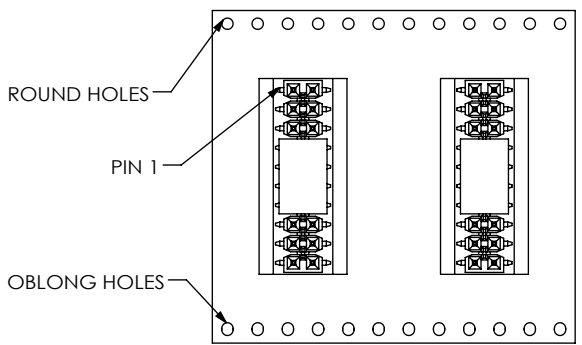
FIG 8
PACKAGING VIEWS

TABLE 4					
LEAD STYLE	MOUNT STYLE	OPTION	TUBE	PLUG	NOTE
01, 02, 04, 05	-DV	NONE	PT-1-24-01-29	TP-03	4
01, 02	-DV	-LC, -A	PT-1-24-01-29	TP-03	4
01, 04, 05	-DV	-P	PT-1-24-06-29	TP-03	4
01, 04, 05	-DV	-LC-P, -A-P	PT-1-24-06-29	TP-03	4
02	-DV	-P	PT-1-24-15-29	TP-07	4
02	-DV	-LC-P, -A-P	PT-1-24-15-29	TP-07	4
03	-DV	NONE	PT-1-24-09-29	TP-03	4
03	-DV	-LC, -A	PT-1-24-09-29	TP-03	4
03	-DV	-P	PT-1-24-16-29	TP-03	4
03	-DV	-LC-P, -A-P	PT-1-24-16-29	TP-03	4
04, 05	-DV	-LC, -A	PT-1-24-03-15	TP-03	4
01, 04, 05	-DV	-M, -LC-M, -A-M, -LC-A-M	PT-TSM004-DV	TP-03	4
01	-TM	NONE	PT-1-24-02-08	TP-13	4
01	-TV	NONE	PT-1-24-01-70	TP-07	4

$.230^{+.000}_{-.005}[5.84^{0.00}_{-0.13}]$

.150[3.81]
REF
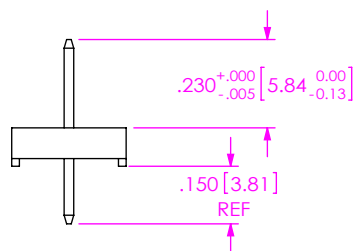
IN-PROCESS 1
-TV MOUNT STYLE

$.230^{+.000}_{-.005}[5.84^{0.00}_{-0.13}]$

.050±.010[1.27±0.25]
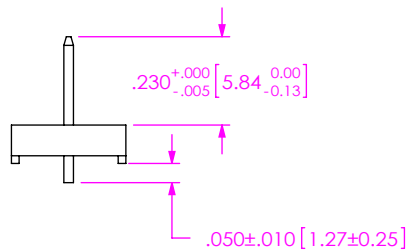
IN-PROCESS 2
-TV MOUNT STYLE

$.230^{+.000}_{-.005}[5.84^{0.00}_{-0.13}]$

.150[3.81]
REF
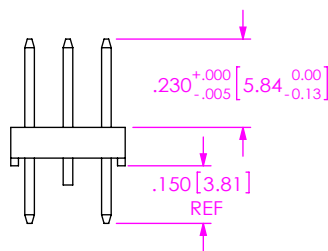
IN-PROCESS 3
-TV MOUNT STYLE

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SHEET SCALE: 2:1

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BY: BRYANT   04/24/1991   SHEET 3 OF 3