REVISION AN

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DESIGNED & DIMENSIONED
IN MILLIMETERS[INCHES]

-01 LEAD STYLE

SO-XXXX-XX-XX-XX-X-X

BOARD STACK HEIGHT
-0165,-0175,-0310,-0318,-0515,-0690,
-0715,-0815,-0865,-0915,-0965,-1015,
-1115,-1215,-1315,-1415,-1515,-1524,
-1615,-1715,-1890,-1915,-2015,-2200,
-2215,-2515,-3015

KIT OPTION
-N: NO HARDWARE
(STANDOFF ONLY; SEE TABLE 2)
LEAVE BLANK FOR KIT

LOCKING OPTION
-L: LOCKING COMPOUND
(NOT AVAILABLE WITH -04 OR -N OPTION
ON -01 AND -05 LEAD STYLES)

"THREADING"
(SEE TABLE 7)

ϕ6.35[.250] REF

LEAD STYLE
-01: FEMALE THREAD/PRESS-IN
(SEE FIG. 1, SHT. 1)
SEE NOTE 6
-02: MALE/MALE THREADED
(SEE FIG 2, SHT. 2)
SEE NOTE 7
-03: MALE/FEMALE THREADED
(SEE FIG. 3, SHT. 3)
SEE NOTE 10
-04: FEMALE/PRESS-IN
(SEE FIG.4, SHT.4)
SEE NOTE 9
-05: FEMALE/FEMALE
THREADED
(SEE FIG. 5 SHT. 5)
-06: MALE/MALE THREADED
(SEE FIG 6, SHT. 6)

MATERIAL
-01: 6061 ALUMINUM
-02: 303 STAINLESS STEEL

THREADING
-01: #4-40
-02: M3 x 0.5
-03: M2 x 0.4

ϕ4.50±0.08[.177±.003]

ϕ9.20±0.13[.362±.005]

KEEP OUT AREA

RECOMMENDED BOARD
CUTOUT (PRESS-IN)

MS-01-02-L SHOWN
(SEE NOTE 8)

"A" ±0.05[.002] REF
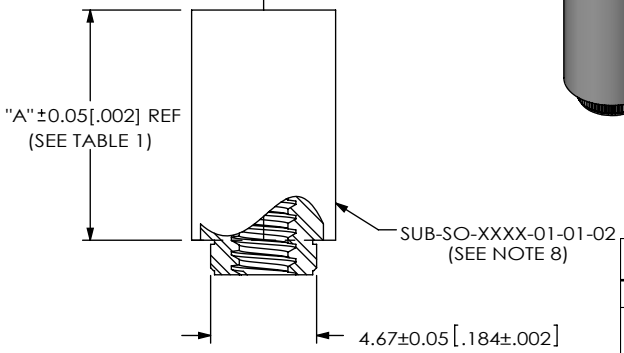(SEE TABLE 1)
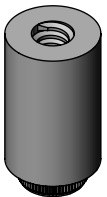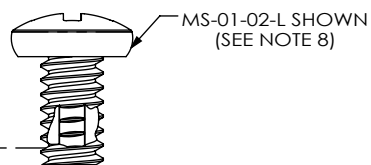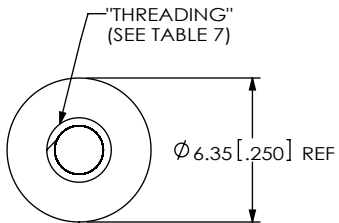
SUB-SO-XXXX-01-01-02
(SEE NOTE 8)

4.67±0.05[.184±.002]

FIG 1
SO-XXXX-01-01-02-L SHOWN

NOTES:
1. DELETED
2. DELETED
3. DELETED
4. STANDOFFS TO BE USED WITH 1.57[.062]MIN THICK BOARDS.
5. NOTE DELETED..
6. -01 LEAD STYLE ONLY AVAILABLE FOR BOARD STACK
HEIGHTS -0515 THRU -0965.
7. -02 LEAD STYLE ONLY AVAILABLE FOR TOOLED
BOARD STACK HEIGHTS, SEE TABLE 3, SHT 2
FOR TOOLED STACKS.
8. COMPONENTS ARE TO BE PACKAGED IN SEPARATE BAGS
UNASSEMBLED AND NOT LABELED. COMBINE SEPARATE BAGS
IN ONE LARGER BAG WITH PART NUMBER AND QUANTITY.
9. -04 LEAD STYLE ONLY AVAILABLE FOR BOARD STACK
HEIGHT -0165, -0175, -0310 AND -0318.
10. -03 LEAD STYLE ONLY AVAILABLE FOR TOOLED
BOARD STACK HEIGHTS, SEE TABLE 4, SHT 3.
FOR TOOLED HEIGHTS.
11. NOTE DELETED.
12.   REPRESENTS A CRITICAL DIMENSION.
13. STANDOFFS ARE DESIGNED .15MM LONGER THAN CONNECTOR
STACK HEIGHTS TO ALLOW FOR PROCESSING VARIABLES.
14. TORQUE TO 2.5 – 3.5 IN*LBS TO SECURE FASTENER IN A STATIC ENVIRONMENT
ASSUMING RECOMMENDED BOARD TO BOARD DISTANCES ARE ACHIEVED
WITHOUT DAMAGE TO THE PCB, HARDWARE OR OTHER COMPONENTS.
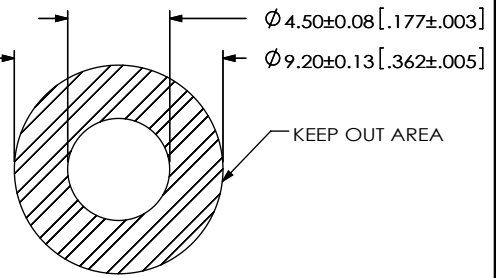15. FOR -L OPTION, SPREAD LOCKING COMPOUND OVER 5 THREADS OR AT LEAST 0.105".

TABLE 7	
STYLE	THREADING
-01	#4-40 UNC 2A
	#4-40 UNC 2B
-02	M3 x 0.5 6g
	M3 x 0.5 6H
-03	M2 x 0.4 6g
	M2 x 0.4 6H

TABLE 1	
01 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"A"
-0515	5.15[.203]
-0690	6.90[.272]
-0715	7.15[.282]
-0815	8.15[.321]
-0865	8.65[.341]
-0915	9.15[.360]
-0965	9.65[.380]

TABLE 2 - BOM						
FINISHED GOOD	STANDOFF	QTY	SCREW	QTY	NUT	QTY
SO-XXXX-01-01-XX	SUB-SO-XXXX-01-01-XX	1	MS-01-XX	1	N/A	
SO-XXXX-01-01-XX-N	SUB-SO-XXXX-01-01-XX	1	N/A		N/A	
SO-XXXX-01-01-XX-L	SUB-SO-XXXX-01-01-XX	1	MS-01-XX-L	1	N/A	
SO-XXXX-02-01-XX	SUB-SO-XXXX-02-01-XX	1	N/A		SN-01-XX	2
SO-XXXX-02-01-XX-N	SUB-SO-XXXX-02-01-XX	1	N/A		N/A	
SO-XXXX-02-01-XX-L	SUB-SO-XXXX-02-01-XX-L	1	N/A		SN-01-XX	2
SO-XXXX-02-01-XX-L-N	SUB-SO-XXXX-02-01-XX-L	1	N/A		N/A	
SO-XXXX-03-01-XX	SUB-SO-XXXX-03-01-XX	1	MS-01-XX	1	SN-01-XX	1
SO-XXXX-03-01-XX-N	SUB-SO-XXXX-03-01-XX	1	N/A		N/A	
SO-XXXX-03-01-XX-L	SUB-SO-XXXX-03-01-XX-L	1	MS-01-XX-L	1	SN-01-XX	1
SO-XXXX-03-01-XX-L-N	SUB-SO-XXXX-03-01-XX-L	1	N/A		N/A	
SO-XXXX-05-01-XX	SUB-SO-XXXX-05-01-XX	1	MS-01-XX	2	N/A	
SO-XXXX-05-01-XX-N	SUB-SO-XXXX-05-01-XX	1	N/A		N/A	
SO-XXX-05-01-XX-L	SUB-SO-XXX-05-01-XX	1	MS-01-XX-L	2	N/A	
SO-XXXX-01-02-XX	SUB-SO-XXXX-01-02-XX	1	MS-02-XX	1	N/A	
SO-XXXX-01-02-XX	SUB-SO-XXXX-01-02-XX	1	N/A		N/A	
SO-XXXX-01-02-XX-L	SUB-SO-XXXX-01-02-XX	1	MS-02-XX-L	1	N/A	
SO-XXXX-02-02-XX	SUB-SO-XXXX-02-02-XX	1	N/A		SN-02-XX	2
SO-XXXX-02-02-XX-N	SUB-SO-XXXX-02-02-XX	1	N/A		N/A	
SO-XXXX-02-02-XX-L	SUB-SO-XXXX-02-02-XX	1	N/A		SN-02-XX	2
SO-XXXX-02-02-XX-L-N	SUB-SO-XXXX-02-02-XX-L	1	N/A		N/A	
SO-XXXX-03-02-XX	SUB-SO-XXXX-03-02-XX	1	MS-02-XX	1	SN-02-XX	1
SO-XXXX-03-02-XX-N	SUB-SO-XXXX-03-02-XX	1	N/A		N/A	
SO-XXXX-03-02-XX-L	SUB-SO-XXXX-03-02-XX-L	1	MS-02-XX-L	1	SN-02-XX	1
SO-XXXX-03-02-XX-L-N	SUB-SO-XXXX-03-02-XX-L	1	N/A		N/A	
SO-XXXX-05-02-XX	SUB-SO-XXXX-05-02-XX	1	MS-02-XX	2	N/A	
SO-XXXX-05-02-XX-N	SUB-SO-XXXX-05-02-XX	1	N/A		N/A	
SO-XXX-05-02-XX-L	SUB-SO-XXXX-05-02-XX	1	MS-02-XX-L	2	N/A	
SO-XXX-05-03-XX	SUB-SO-XXX-05-03-XX	1	MS-06-XX	2	N/A	
SO-XXX-05-03-XX-L	SUB-SO-XXX-05-03-XX	1	MS-06-XX-L	2	N/A	

MATERIAL: DO NOT SCALE DRAWING   SHEET SCALE: 1:0.333333
SEE PART CALL OUT FOR MATERIAL
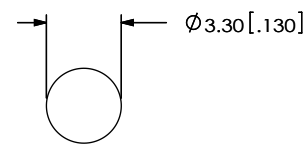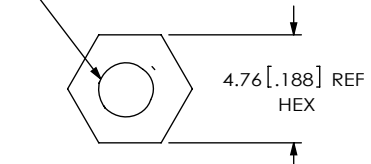
DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

BY: T.NEWTON 12/6/2007   SHEET 1 OF 6

F:\DWG\MISC\MKTG\SO-XXXX-XX-XX-XX-X-MKT.SLDDRW

"THREADING"
(SEE TABLE 7)

-02 LEAD STYLE

4.76[.188] REF
HEX

SHOWN WITHOUT LOCKING
OPTION
(NOT CATALOG STANDARD)

"B"±0.05[.002] REF
(SEE TABLE 3)

SUB-SO-XXXX-02-01-02-X
(SEE NOTE 8)

4.76[.188] REF

SHOWN WITH LOCKING
OPTION

SN-01-02 SHOWN
(SEE NOTE 8)

FIG 2
SO-XXXX-02-01-02-X SHOWN

Ø3.30[.130]
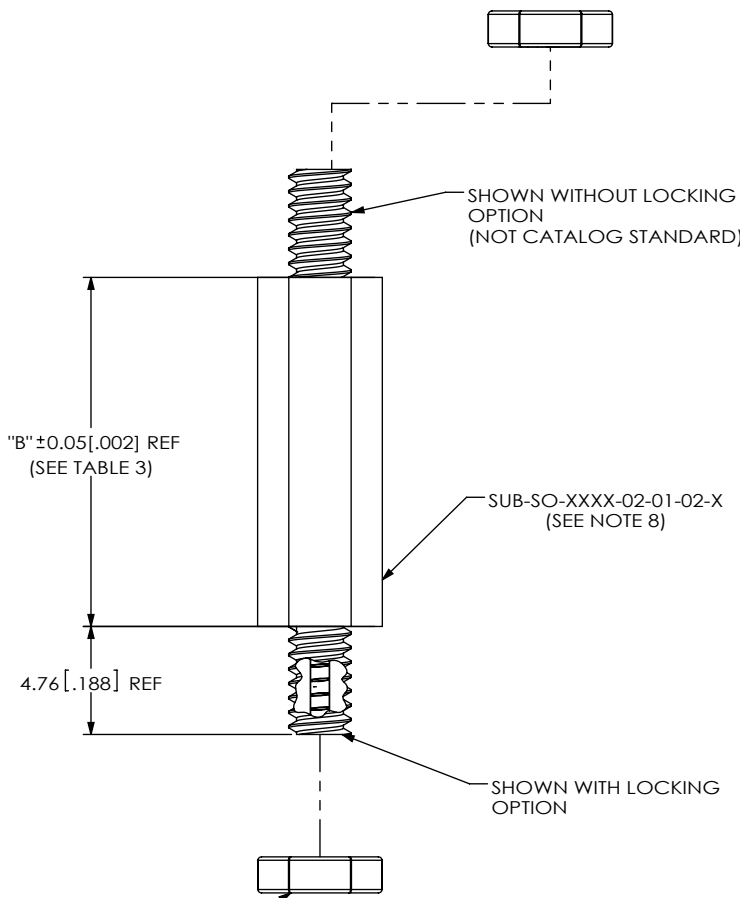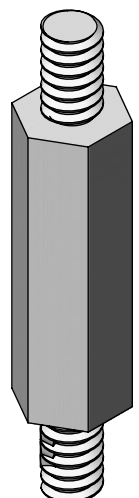
RECOMMENDED BOARD
CUTOUT (#4-40)

TABLE 3	
02 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"B"
-0515	5.15[.203]
-0715	7.15[.282]
-0865	8.65[.341]
-1015	10.15[.400]
-1115	11.15[.439]
-1215	12.15[.478]
-1315	13.15[.518]
-1415	14.15[.557]
-1515	15.15[.597]
-1524	15.24[.600]
-1615	16.15[.636]
-1715	17.15[.675]
-1890	18.90[.744]
-1915	19.15[.754]
-2015	20.15[.793]
-2215	22.15[.872]
-2515	25.15[.990]
-3015	30.15[1.187]

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DO NOT SCALE DRAWING

DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

SHEET SCALE: 1:0.333333

BY: T.NEWTON 12/6/2007   SHEET 2 OF 6

-03 LEAD STYLE

4.76[.188] REF
HEX

"THREADING"
(SEE TABLE 7)

TABLE 4	
03 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"C"
-0815	8.15[.321]
-0865	8.65[.341]
-0915	9.15[.360]
-0965	9.65[.380]
-1015	10.15[.400]
-1115	11.15[.439]
-1215	12.15[.478]
-1315	13.15[.518]
-1415	14.15[.557]
-1515	15.15[.597]
-1524	15.24[.600]
-1615	16.15[.636]
-1715	17.15[.675]
-1890	18.90[.744]
-1915	19.15[.754]
-2015	20.15[.793]
-2200	22.00[.866]
-2215	22.15[.872]
-2515	25.15[.990]
-3015	30.15[1.187]

MS-01-02-L SHOWN
(SEE NOTE 8)

SUB-SO-XXXX-03-01-02-L
(SEE NOTE 8)

"C"±0.05[.002]
(SEE TABLE 4)

SHOWN WITH
LOCKING OPTION

4.76[.188]

SN-01-02 SHOWN
(SEE NOTE 8)

FIG 3
SO-XXXX-03-01-02-X SHOWN
(SAME AS -02 LEAD STYLE,
EXCEPT WHERE STATED)

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DO NOT SCALE DRAWING

DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

SHEET SCALE: 3:1

BY: T.NEWTON 12/6/2007

-04 LEAD STYLE

$\varnothing$ 3.4251 [.135]

45° $^{+0°}_{-5°}$

3.42±0.005 [.135±.000]

"A" "A"

$\varnothing$ 6.35 [.250]
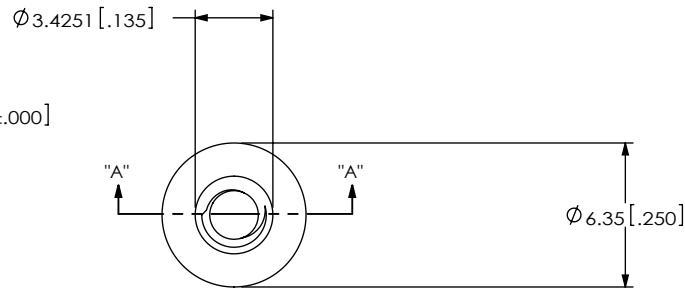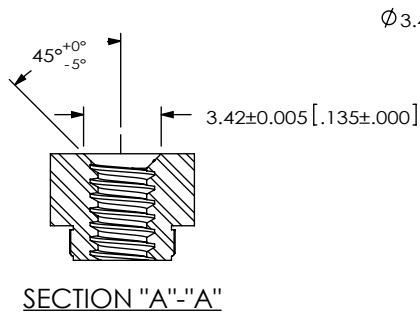
SECTION "A"-"A"

"D" ±0.05[.002]
SEE TABLE 5

1.52 [.060]

4.42 ±0.05[.174 ±.002]

FIG 4
SO-XXXX-04-01-02 SHOWN

KEEP OUT AREA

$\varnothing$ 8.44±0.13 [.332±.005]

$\varnothing$ 4.24±0.08 [.167±.003]
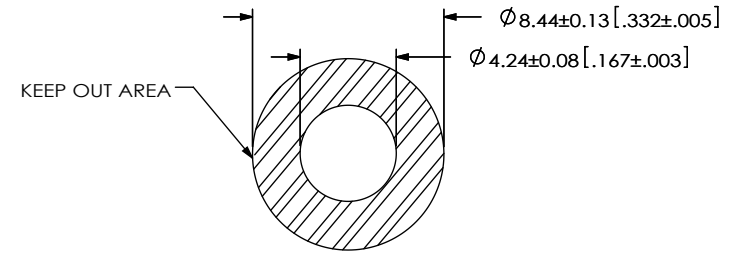
RECOMMENDED BOARD
CUTOUT (PRESS-IN)

TABLE 5	
04 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"D"
-0165	1.65[.065]
-0175	1.75[.069]
-0310	3.10[.122]
-0318	3.18[.125]

DO NOT SCALE DRAWING

DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

SHEET SCALE: 1:0.333333

BY: T.NEWTON 12/6/2007

SHEET 4 OF 6

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-05 LEAD STYLE

MS-01-02-L SHOWN
(SEE NOTE 8)
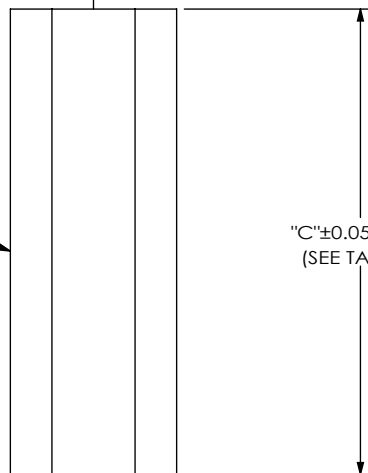
SUB-SO-XXXX-05-01-02-X
(SEE NOTE 8)

"C"±0.05[.002]
(SEE TABLE 6)
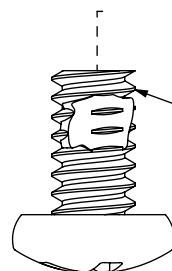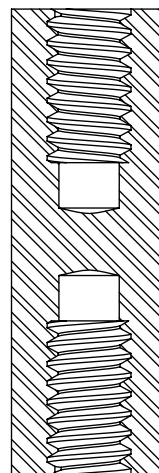
MS-01-02-L SHOWN
(SEE NOTE 8)

TABLE 6	
05 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"C"
-0515	5.15[.002]
-0915	9.15[.004]
-1015	10.15[.400]
-1115	11.15[.440]
-1215	12.15[.492]
-1315	13.15[.518]
-1415	14.15[.557]
-1515	15.15[.597]
-1524	15.24[.600]
-1615	16.15[.636]
-1715	17.15[.675]
-1890	18.90[.744]
-1915	19.15[.754]
-2015	20.15[.793]
-2200	22.00[.866]
-2215	22.15[.872]
-2515	25.15[.990]

FIG 5
SO-XXXX-05-01-02-X SHOWN
(SAME AS -02 LEAD STYLE,
EXCEPT WHERE STATED)

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DO NOT SCALE DRAWING

DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

SHEET SCALE: 1:1

BY: T.NEWTON 12/6/2007   SHEET 5 OF 6
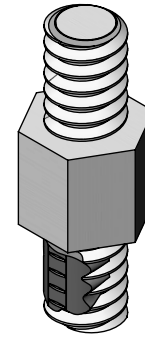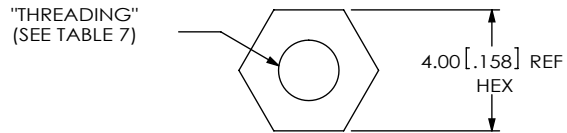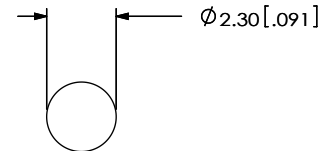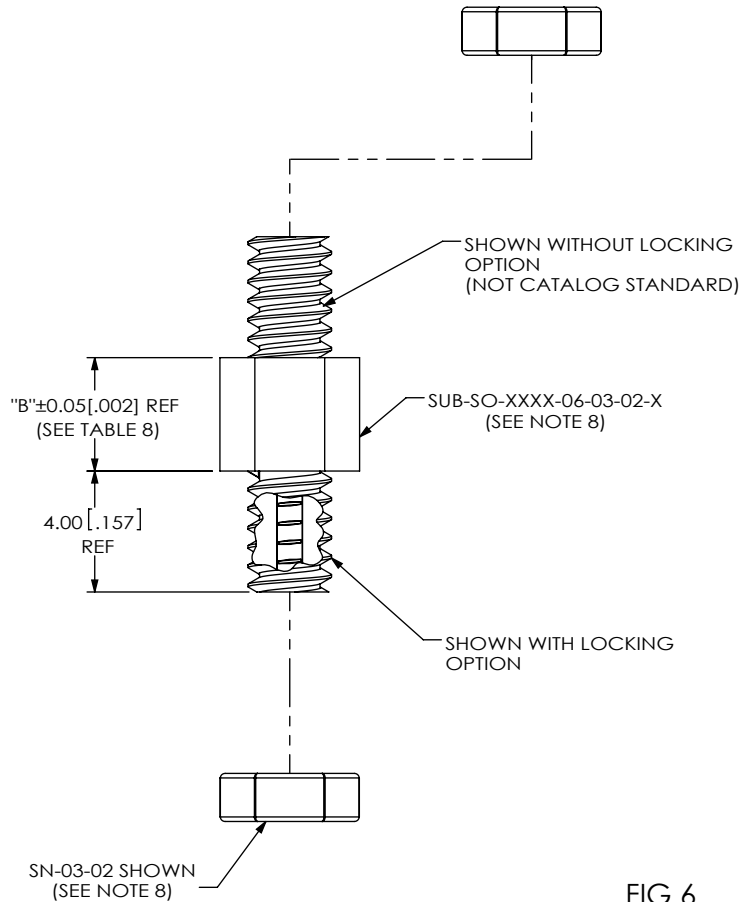
-06 LEAD STYLE

"THREADING"
(SEE TABLE 7)

4.00[.158] REF
HEX

TABLE 8	
06 LEAD STYLE AVAILABILITY	
BOARD STACK HEIGHT	"B"
-0375	3.75[.148]

SHOWN WITHOUT LOCKING
OPTION
(NOT CATALOG STANDARD)

"B"±0.05[.002] REF
(SEE TABLE 8)

SUB-SO-XXXX-06-03-02-X
(SEE NOTE 8)

4.00[.157]
REF

Ø2.30[.091]

SHOWN WITH LOCKING
OPTION

RECOMMENDED BOARD
CUTOUT (M2 x 0.4)

SN-03-02 SHOWN
(SEE NOTE 8)

FIG 6
SO-XXXX-06-03-02-X SHOWN
(SAME AS -02 LEAD STYLE,
EXCEPT WHERE STATED)

DO NOT SCALE DRAWING

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DESCRIPTION:
BOARD TO BOARD STANDOFF

DWG. NO.
SO-XXXX-XX-XX-XX-X

SHEET SCALE: 4:1

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F:\DWG\MISC\MKTG\SO-XXXX-XX-XX-XX-X-MKT.SLDDRW