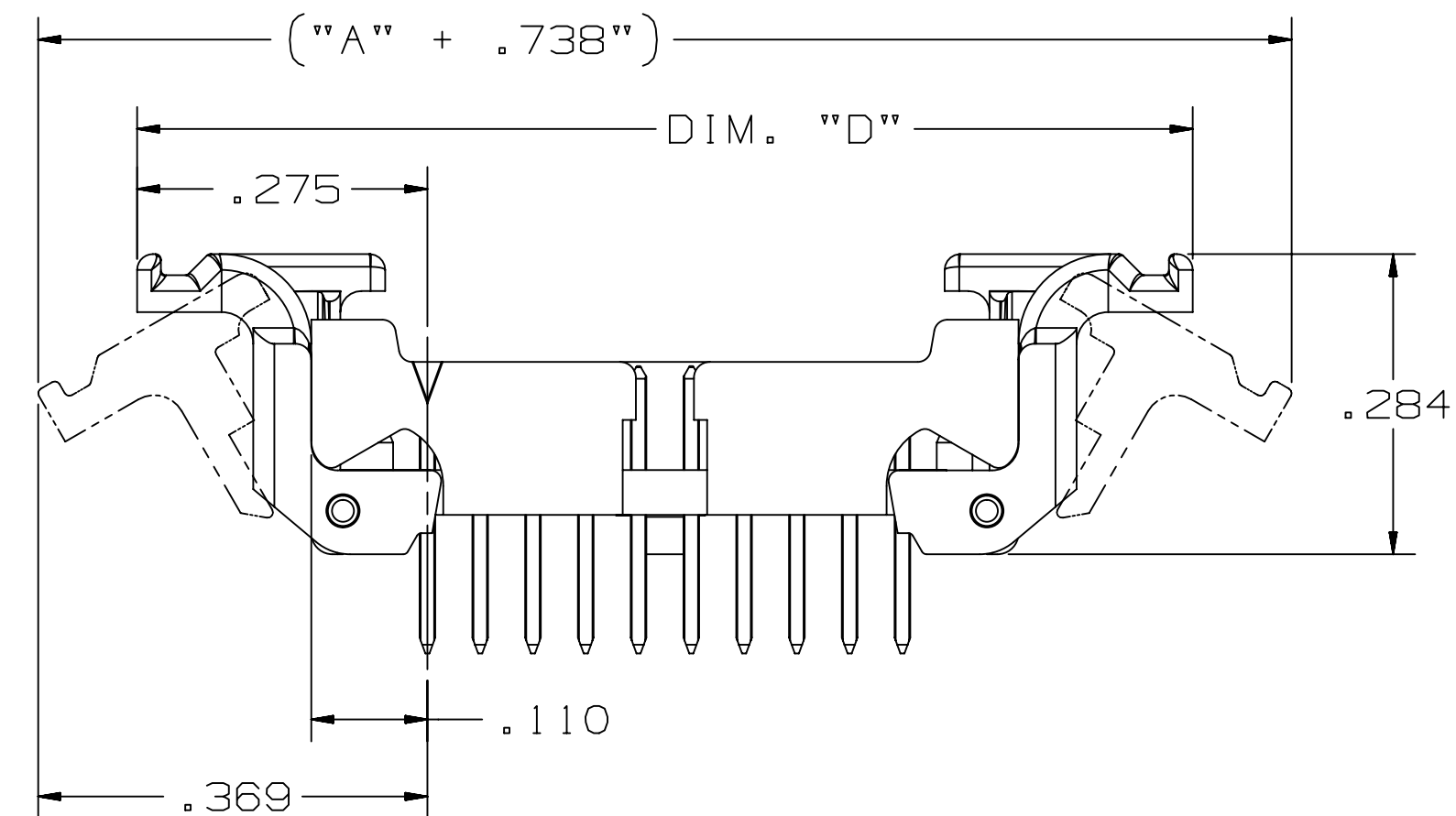
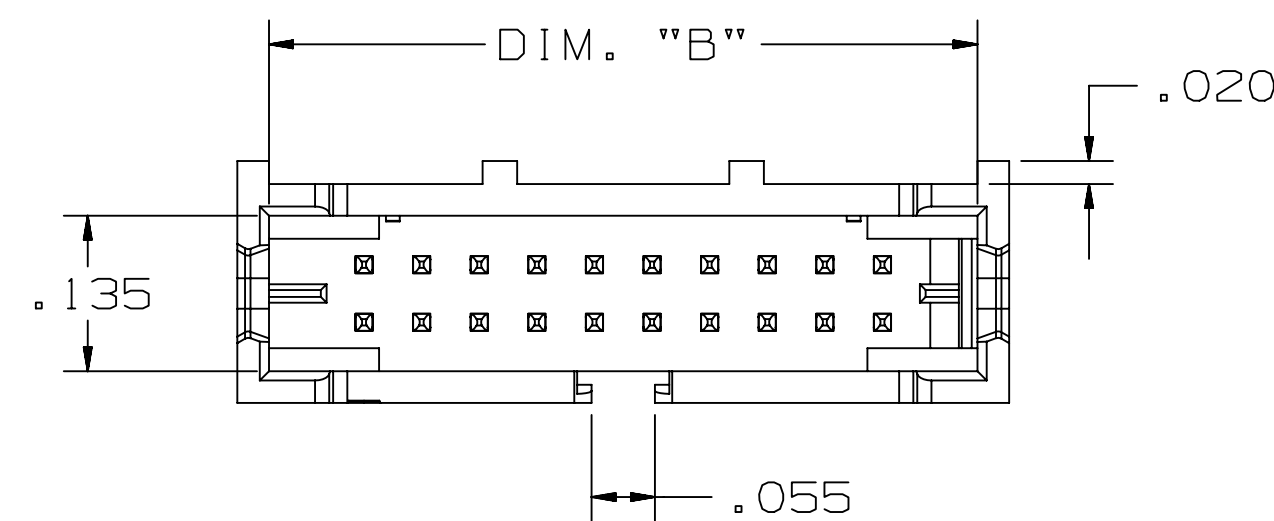
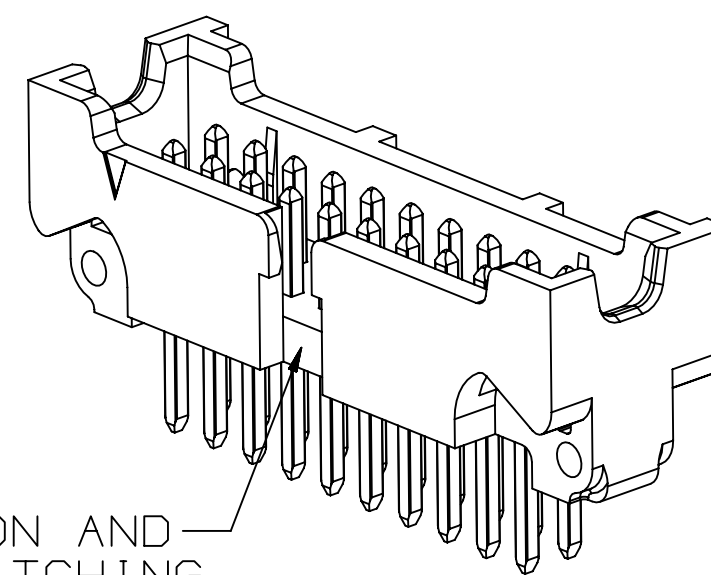
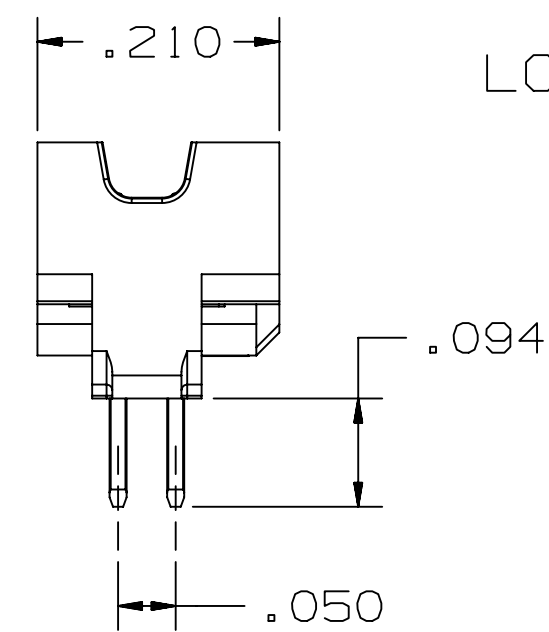
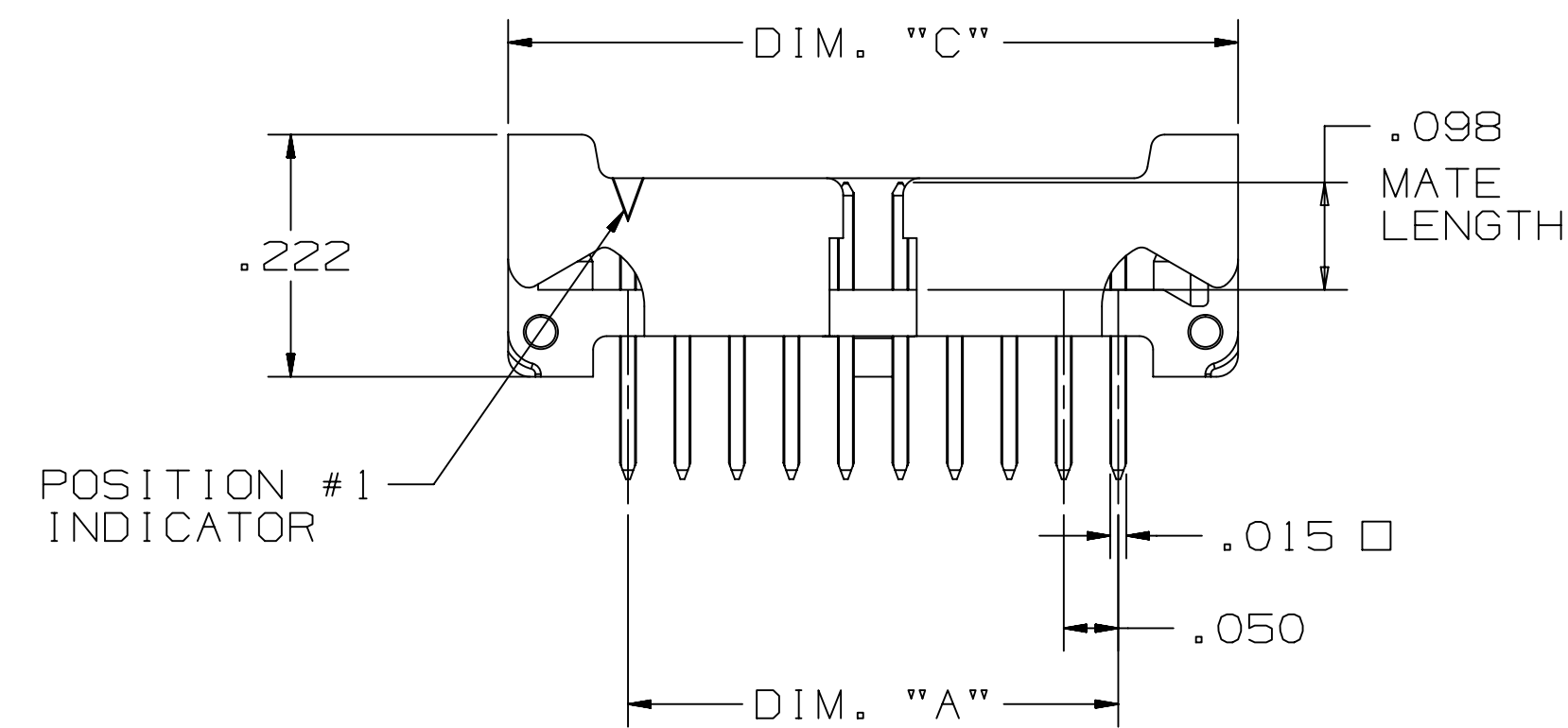


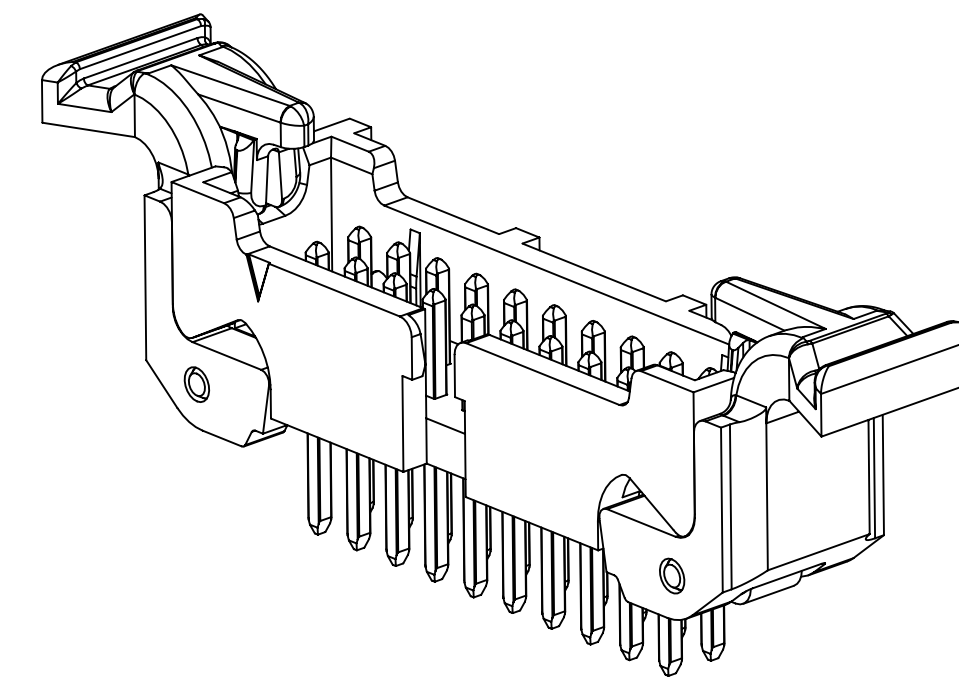
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



THRU BOARD, VERTICAL WITH
LOW PROFILE LATCH/EJECT OPTION



POLARIZATION AND-
FRICTION LATCHING
POSITIONS 8 AND
HIGHER ONLY



WITH LATCH/EJECT

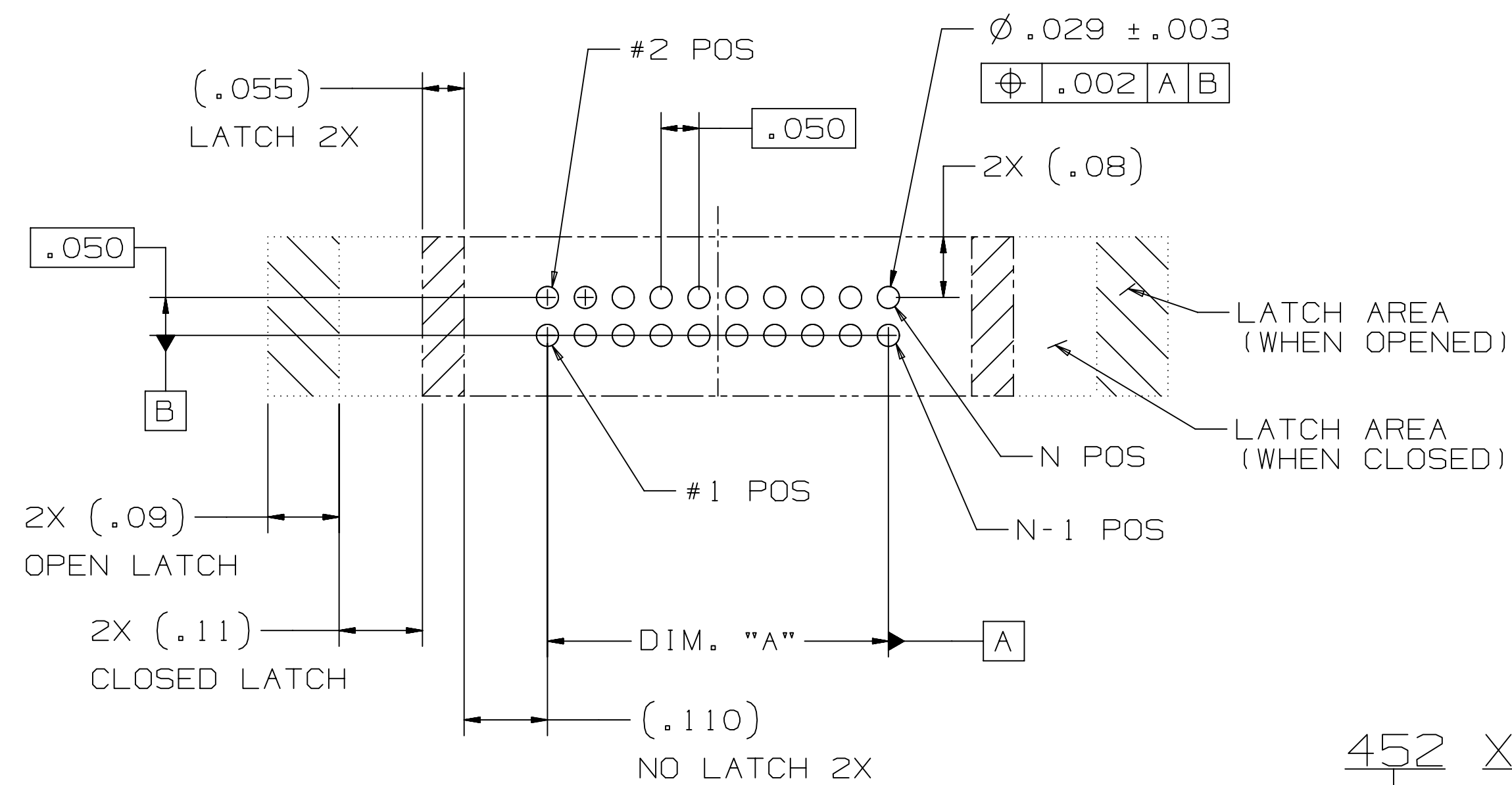
TABLE 1: VERTICAL THRU

No. of Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
40	.950	1.115	1.170	1.500
50	1.200	1.365	1.420	1.750

NOTES

1. MATERIAL:
BODY: LCP, UL94V-0
LATCH: PPA, UL94V-0
CONTACTS: COPPER ALLOY.
2. PLATING:
50-150 μ " NICKEL UNDERPLATE
30 = 30 μ " GOLD MIN. ON
WIPING AREA WITH 200 μ "
MATTIE TIN ON SOLDER TAIL
00 = GOLD FLASH ON WIPING
AREA WITH
100-140 μ " MATTIE TIN ON
SOLDER TAIL.
3. MATING COMPATIBILITY:
3M 1,27mm (0.050"), 451 SERIES
RIBBON CABLE SOCKET. TECH
SHEETS TS-2436 AND TS-2396
4. REGULATORY INFORMATION:
VISIT 3M.com/regs
5. IN THE EVENT OF CONFLICT
BETWEEN THIS DATA AND THAT
CONTAINED IN THE PRODUCT
SPECIFICATION, THE PRODUCT
SPECIFICATION TAKES
PRECEDENT.
6. REFERENCE PRODUCT SPEC:
3M DOC ID# 78-5102-0091-4
7. OTHER PIN COUNTS AVAILABLE
UPON REQUEST. CONTACT 3M.
8. UNLESS OTHERWISE NOTED,
REFERENCES TO INDUSTRY
SPECIFICATIONS ARE INTENDED
TO INDICATE SUBSTANTIAL
COMPLIANCE TO THE MATERIAL
ELEMENTS OF THE SPECIFICATION.
SUCH REFERENCES SHOULD NOT BE
CONSTRUED AS A GUARANTEE OF
COMPLIANCE TO ALL REQUIREMENTS
IN A GIVEN SPECIFICATION.
9. PACKAGING:
VERTICAL THRU: TRAY
RIGHT ANGLE THRU: TRAY
VERTICAL SMT: TAPE AND REEL.

THRU BOARD, VERTICAL



RECOMMENDED BOARD LAYOUT

SERIES

NO. OF POSITIONS
SEE TABLE 1

PART CONFIG. AND PACKAGING _____

6 = VERTICAL THRU HOLE, TRAY PACKAGING
5 = RIGHT ANGLE THRU HOLE, TRAY PACKAGING
2 = VERTICAL SMT, TAPE AND REEL WITH VAC CAP

- PLATING
00 = AU FLASH
30 = 30μ" GOLD

CONTACT TAIL
2 = STANDARD (.094")

- LATCH/EJECT
 - 0 = NO LATCHES
 - 2 = WITH LOW PROFILE LATCHES

PERFORMANCE :

CURRENT RATING:	1.0A, UL 04P-50P, NOT FOR CURRENT INTERRUPTION
	1.0A, CUL 04P-30P, NOT FOR CURRENT INTERRUPTION
	0.75A, CUL 32P-50P, NOT FOR CURRENT INTERRUPTION
	0.75A, ALL LINES ENERGIZED 30°C TEMP RISE PER EIA 364-70
	1.50A, 6 LINES ENERGIZED 30°C TEMP RISE PER EIA 364-70
VOLTAGE RATING:	125V _{Ac}
ISOLATION RESISTANCE:	> 1×10^9 Ohms AT 500 VDC
STANDING VOLTAGE:	1250V _{dc} AT SEA LEVEL
STORAGE TEMPERATURE:	-65°C to +125°C
UL & CUL OPERATING TEMPERATURE:	+130°C
MAXIMUM SURFACE TEMPERATURE:	260°C
LEAD FREE SOLDERABLE:	YES
TEMPERATURE SENSITIVITY LEVEL:	MSL1 PER J-STD-020

UL & CUL VOLTAGE RATING:	125V _{AC}
INSULATION RESISTANCE:	> 1 × 10 ⁹ Ohms AT 500 VDC
WITHSTANDING VOLTAGE:	1250V _{DC} AT SEA LEVEL
OPERATING TEMPERATURE:	-65°C to +125°C
UL & CUL OPERATING TEMPERATURE:	+130°C
PROCESSING TEMPERATURE:	260°C
LEAD-FREE SOLDERABLE:	YES
MOISTURE SENSITIVITY LEVEL:	MSL1 PER J-STD-020

78-5100-2436-3
78-5100-2396-9
REGIONAL REFERENCE

DESIGN REFERENCE		NEXT ASSEMBLY	
ACCESS			

[illegible]

DIVISION		DIVISION CODE
		EMSD
DO NOT	SCALE	TOLERANCE
		EXCEPT

SCALE DRAWING	$\frac{6}{1}$	EXCEPT NOTE
		INCHES

		.0 ± .
		.00 ± .
		.000 ± .

THIRD ANGLE PROJECTION	.0000 ± .
INTERPRET PER ASME Y14.5 - 2018	MILLIME 0 ±

MAX SURFACE ROUGHNESS	.0	±
ALL SURFACES	.00	±
	.000	±

✓	☐ MARKED ONLY	ANGLES
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J	105041	MAY 26,2022 REVISE PERFORMANCE SECTION	JNC	SAN
H	100200	OCT 19,2021 ADD POS 26, 40, 50	JNC	SAN
G	92270	AUG 18,2020 REVISE NOTES	JNC	SAN
F	56988	SEP 24,2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19,2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08,2014 ADD DESIGN REF, UPDATE TITLE,	SJS	SAN
C	50290	OCT 08,2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12,2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25,2013 PRODUCTION RELEASE	JNC	SAN

REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DRFT ARM		DATE NOV 29, 2012	MFG PRC	DATE NOV 29, 2012	
CHKD SAN		DATE NOV 29, 2012	APPVL SAN	DATE NOV 29, 2012	

CAGE NUMBER	SIZE D	DRAWING NO. 78-5100-2437-1	REV. J
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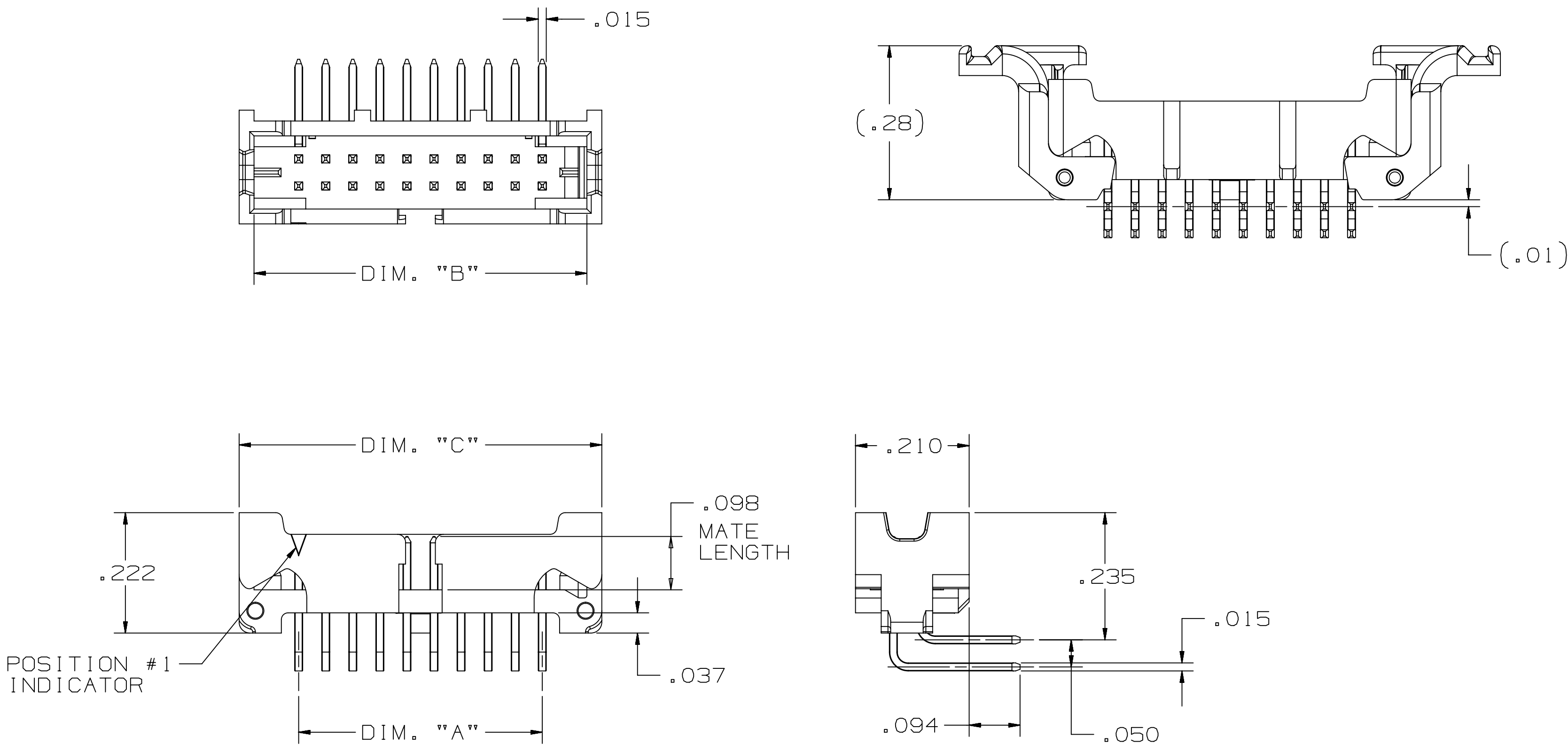
MODEL	452	DET. LISTS	☐ YES ☒ NO	SHT 1 OF 5
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3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
<http://www.3M.com/interconnect>

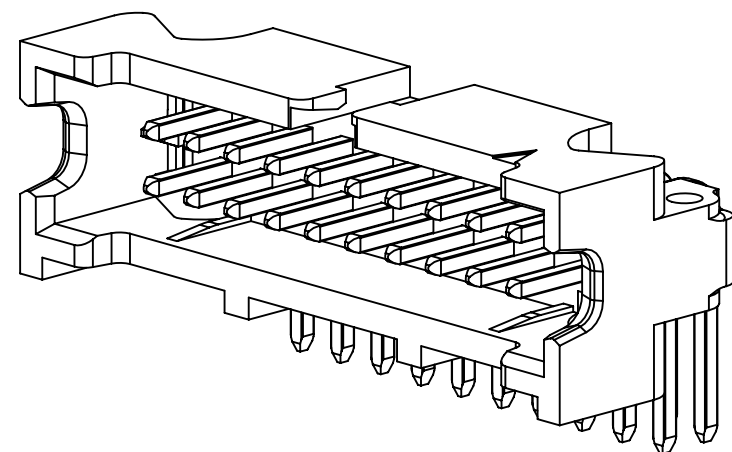
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FOR TECHNICAL, SALES OR ORDERING
INFORMATION CALL 800-225-5373

cULus
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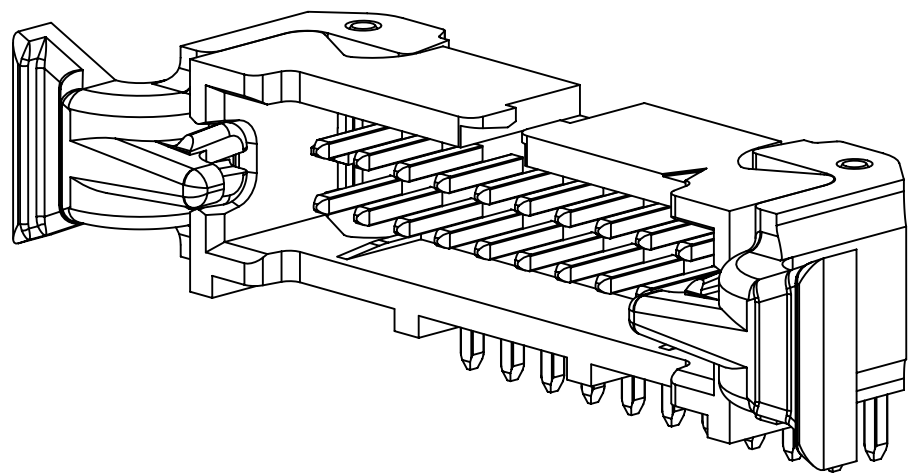
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



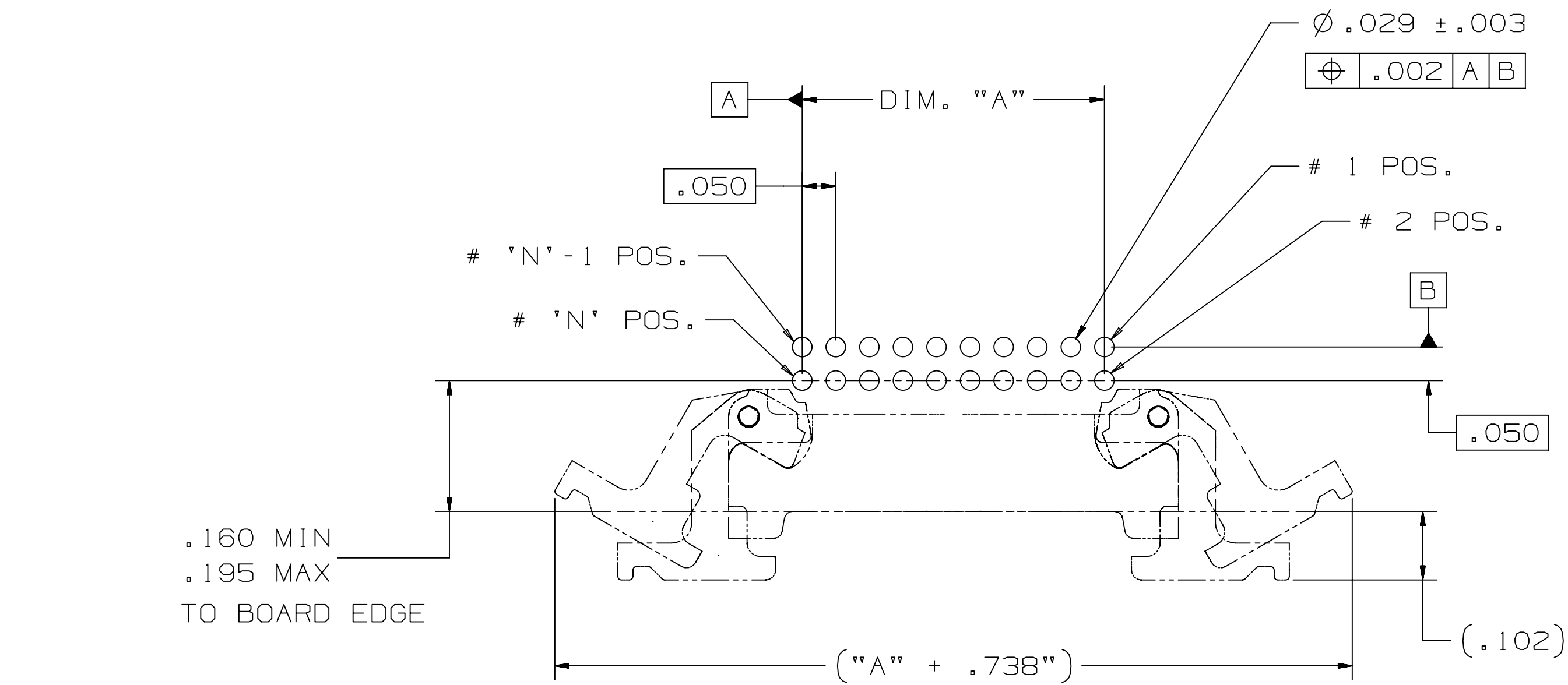
THRU BOARD, RIGHT ANGLE



WITHOUT LATCH/EHECT



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

TABLE 1: RIGHT ANGLE THRU

No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
26	.600	.765	.820
30	.700	.865	.920
40	.950	1.115	1.170
50	1.200	1.365	1.420

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE

NEXT ASSEMBLY

DO NOT SCALE DRAWING

SCALE 6 1

TOLERANCES EXCEPT AS NOTED

INCHES .0 ± .1
.00 ± .02
.000 ± .010
.0000 ± .0050

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX. SURFACE ROUGHNESS .000 ± .000

MARKED ONLY

DIVISION

EMSD

REVISIONS

REV ECO

DATE NOV 29, 2012

DATE NOV 29, 2012

DATE NOV 29, 2012

DATE NOV 29, 2012

3M

3M Center St. Paul, MN 55144

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TITLE

SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER

SIZE

DRAWING NO.

REV.

MODEL

452

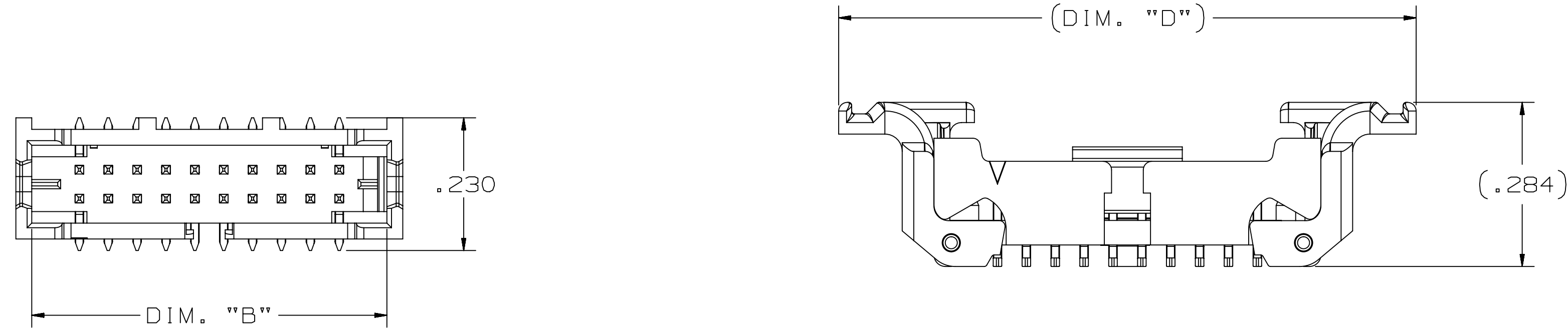
LISTS

YES

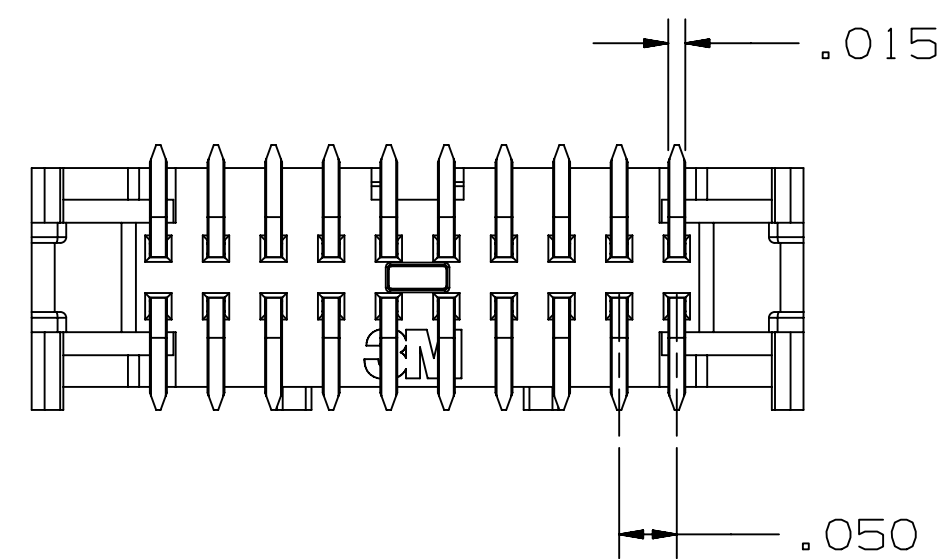
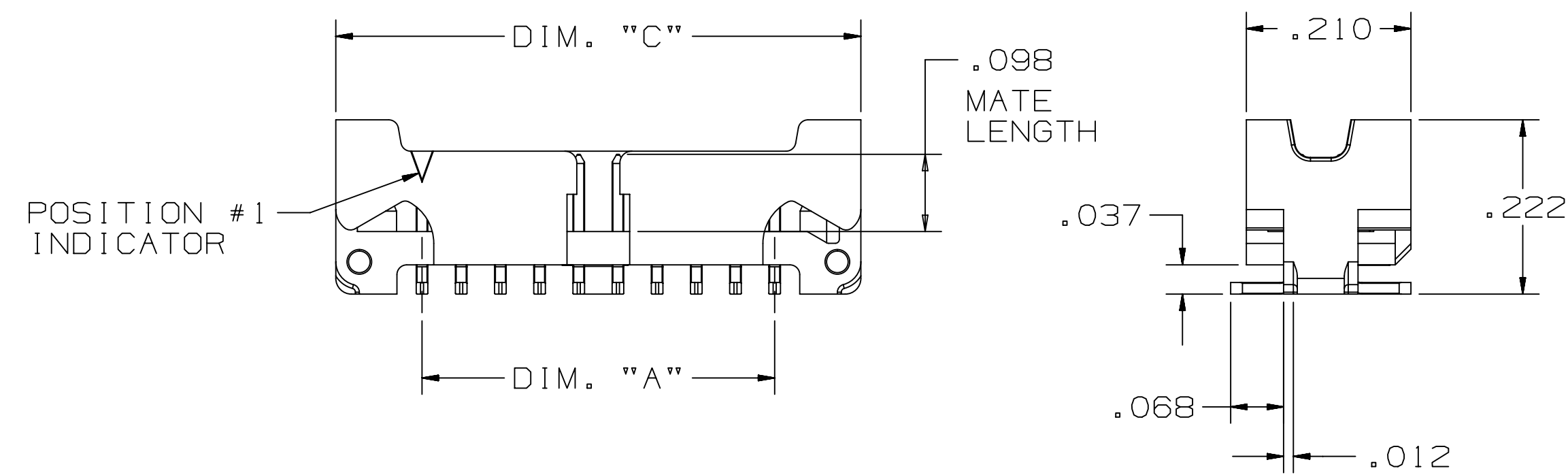
NO

SHT 2 OF 5

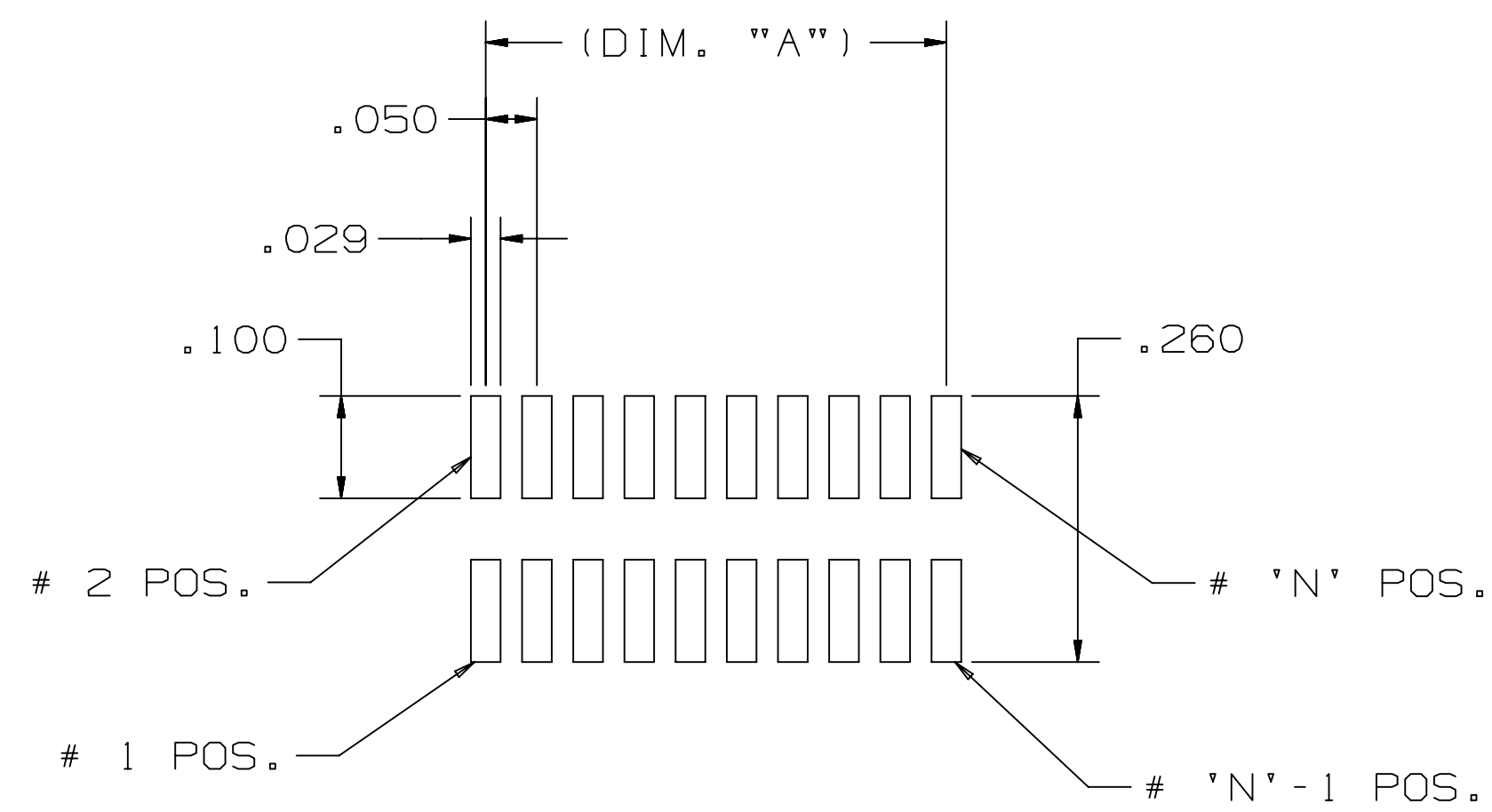
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



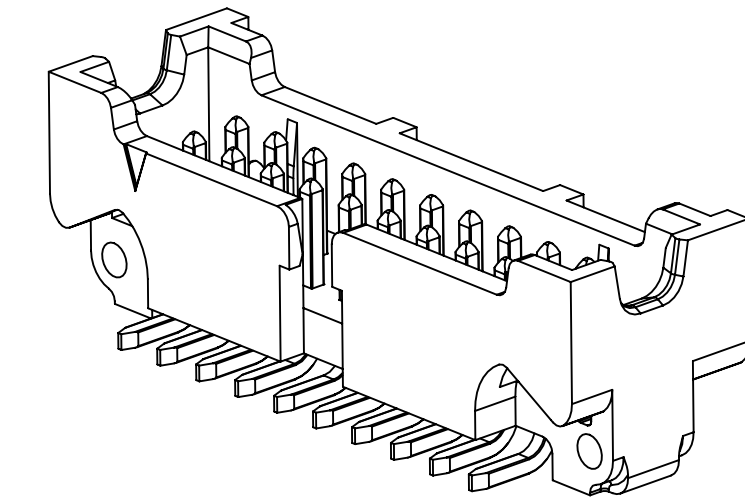
No. Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
40	.950	1.115	1.170	1.500
50	1.200	1.365	1.420	1.750



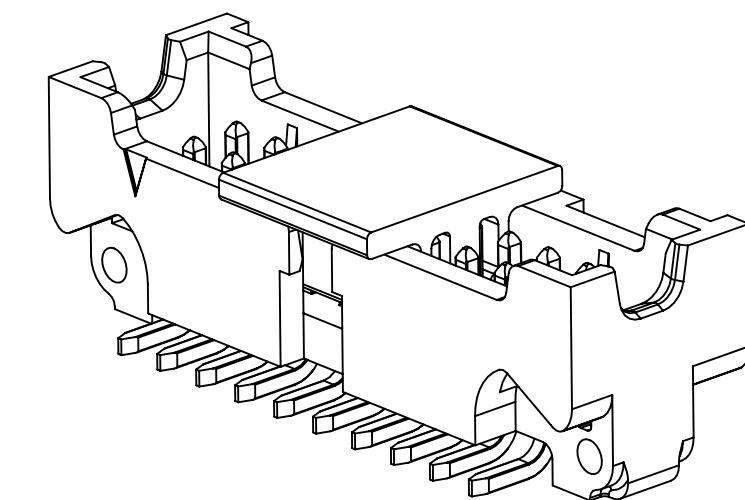
SURFACE MOUNT, VERTICAL



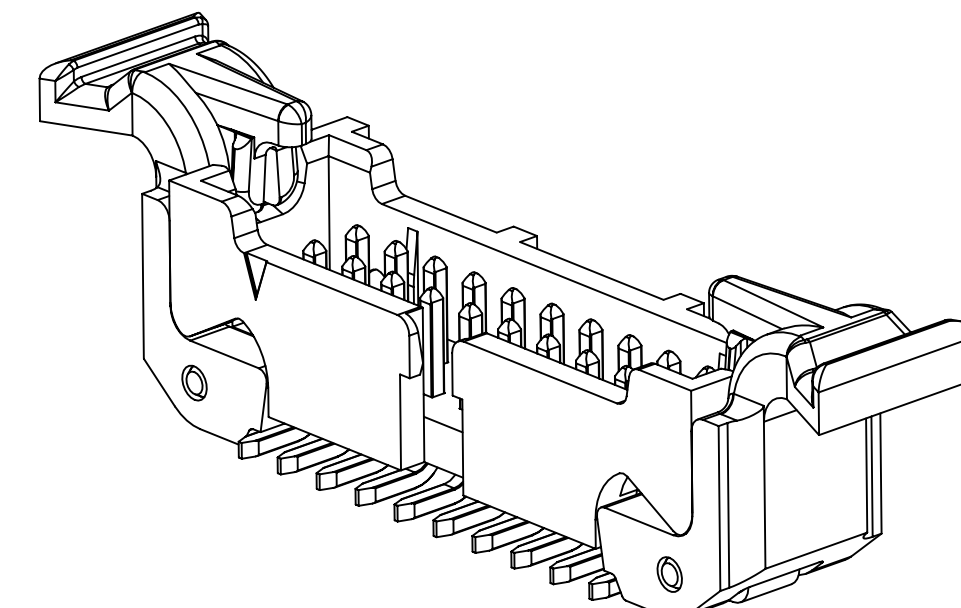
RECOMMENDED BOARD LAYOUT



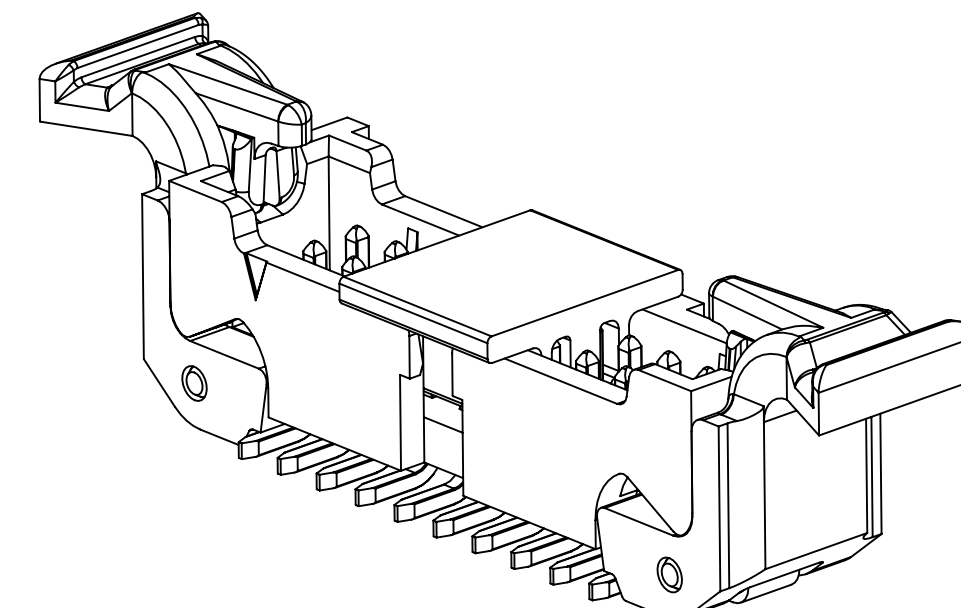
SHROUDED SMT HEADER



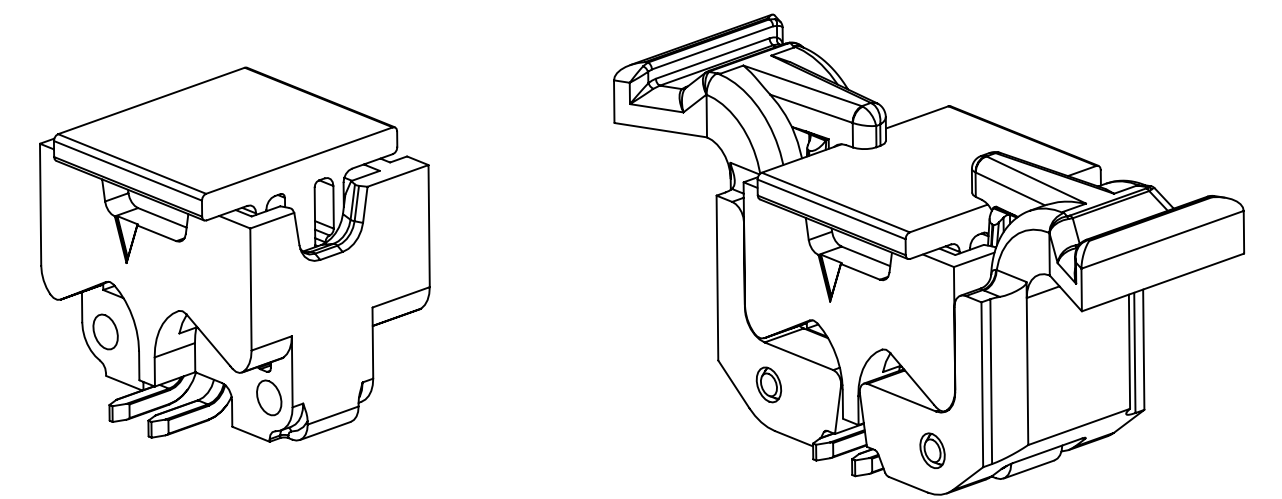
WITH VACUUM CAP



WITH LATCH/EJECT

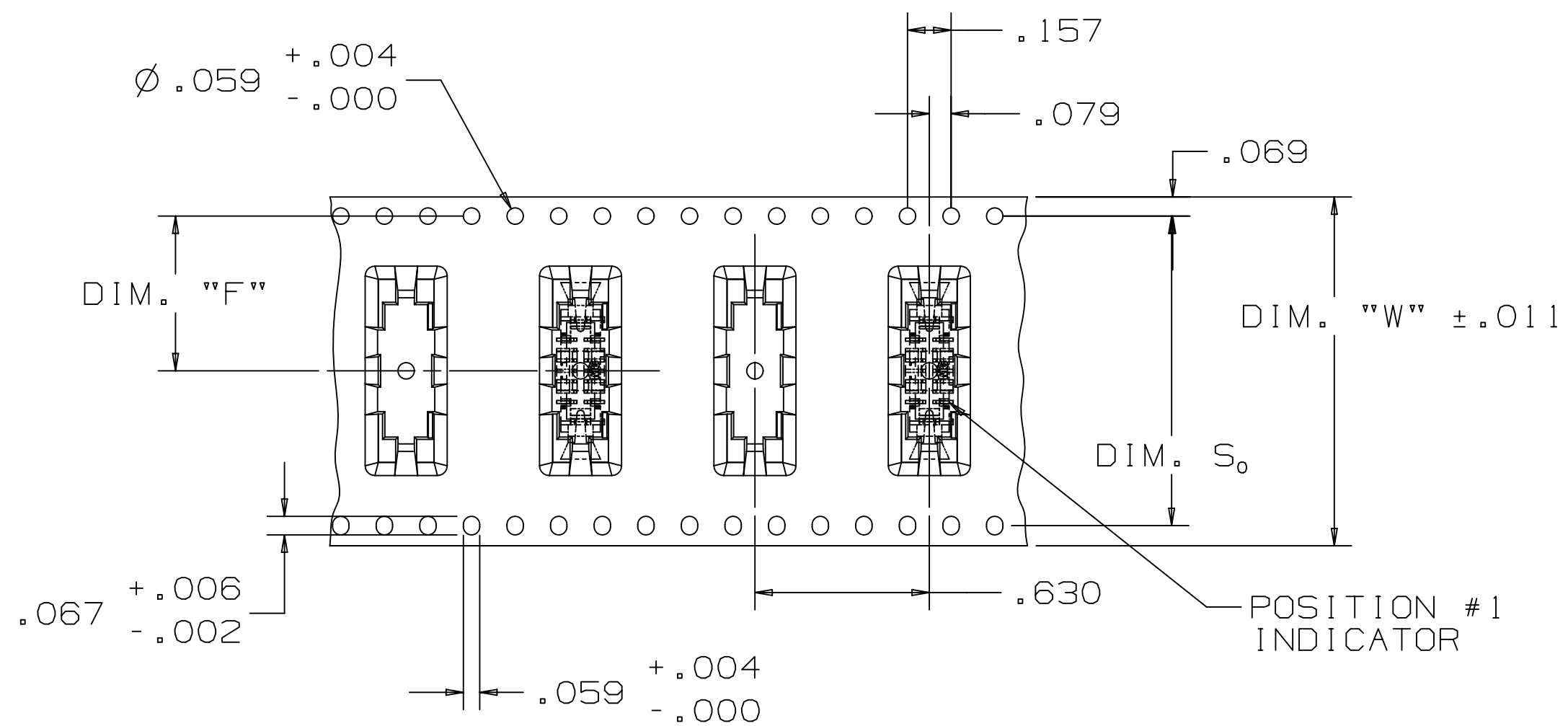
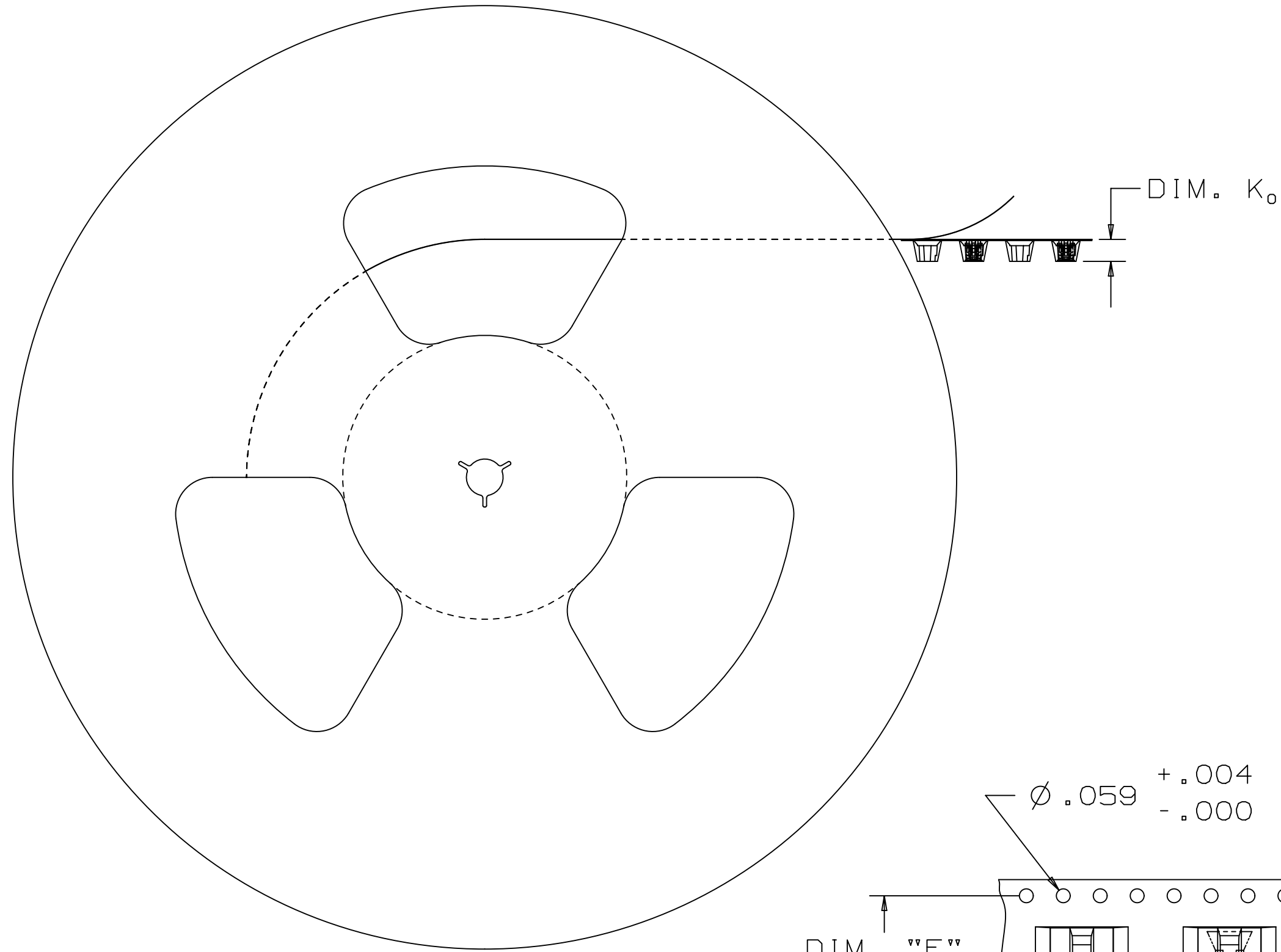


WITH LATCH/EJECT
AND VACUUM CAP
VACUUM CAP IS FULLY SEATED
ON POSITIONS 8 AND HIGHER



VACUUM CAP SEATED ON TOP
EDGES OF END WALLS ON
POSITIONS 4 AND 6

78-5100-2436-3		A 46797		MAR 25, 2013		JNC	SAN
78-5100-2396-9		PRODUCTION RELEASE					
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
ACCESS CODES		DRFT AFFM		DATE NOV 29, 2012	MFG FRC	DATE NOV 29, 2012	
		CHD SAN		DATE NOV 29, 2012	APPL SAN	DATE NOV 29, 2012	
DIVISION		DIVISION CODE					
		EMSD					
DO NOT SCALE DRAWING	SCALE 6 1	TOLERANCES EXCEPT AS NOTED		 © 3M COPYRIGHT 2022 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.			
 THIRD ANGLE PROJECTION							
INTERPRET PER ASME Y14.5 - 2018		MILLIMETERS 0 ±		TITLE SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES			
MAX SURFACE ROUGHNESS		0 ±					
☐ ALL SURFACES ☒ MARKED ONLY		0 ±					
		ANGLES ±		CAGE NUMBER		SIZE DRAWING NO.	
				D 78-5100-2437-1		REV.	
		MODEL 452		DET. LISTS		YES ☐ NO ☒ SHT 3 OF 5	



8

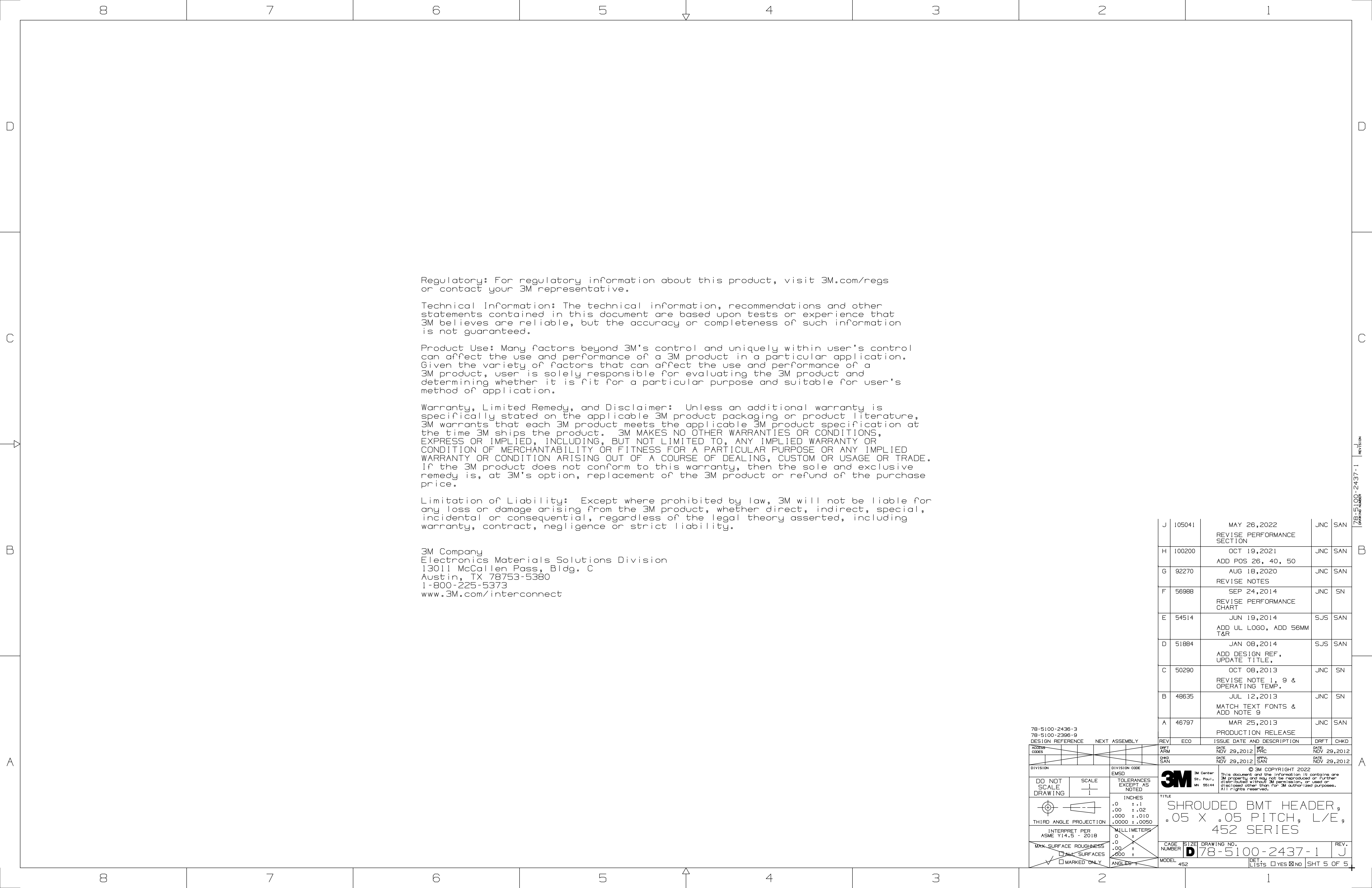
POS	LATCHES	DIM. "F"	DIM. K ₀	DIM. S ₀	DIM. "W"
4	NO	.453	.263	.876	.945 [24MM]
4	YES	.453	.300	.876	1.260 [32MM]
6	NO	.453	.238	.876	.945 [24MM]
6	YES	.559	.300	1.118	1.260 [32MM]
8	NO	.453	.238	.876	.945 [24MM]
8	YES	.559	.300	1.118	1.732 [44MM]
10	NO	.453	.238	.876	.945 [24MM]
10	YES	.559	.300	1.118	1.732 [44MM]
12	NO	.453	.238	.876	.945 [24MM]
12	YES	.559	.300	1.118	1.732 [44MM]
14	NO	.453	.238	.876	.945 [24MM]
14	YES	.795	.300	1.591	1.732 [44MM]
16	NO	.453	.238	.876	.945 [24MM]
16	YES	.795	.300	1.591	1.732 [44MM]
20	NO	.559	.238	1.118	1.260 [32MM]
20	YES	.795	.300	1.591	1.732 [44MM]
26	NO	.795	.254	1.594	1.732 [44MM]
26	YES	1.031	.288	2.067	2.205 [56MM]
30	NO	.795	.238	1.591	1.732 [44MM]
30	YES	.795	.300	1.591	2.205 [56MM]
40	NO	1.031	.254	2.067	2.205 [56MM]
40	YES	1.031	.288	2.067	2.205 [56MM]
50	NO	1.031	.254	2.067	2.205 [56MM]
50	YES	1.346	.288	2.693	2.835 [72MM]

4

78-5100-2437-1	J
DRAWING NUMBER	REVISION

		E
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A



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J	105041	MAY 26,2022	JNC	SAN
H	100200	OCT 19,2021	JNC	SAN
G	92270	AUG 18,2020	JNC	SAN
F	56988	SEP 24,2014	JNC	SN
E	54514	JUN 19,2014	SJS	SAN
D	51884	JAN 08,2014	SJS	SAN
C	50290	OCT 08,2013	JNC	SN
B	48635	JUL 12,2013	JNC	SN
A	46797	MAR 25,2013	JNC	SAN
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	ARM	DATE NOV 29,2012	PRC	DATE NOV 29,2012
CHKD	SAN	DATE NOV 29,2012	APPR	DATE NOV 29,2012
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TITLE				
SHROUDED BMT HEADER,				
.05 X .05 PITCH, L/E,				
452 SERIES				
CAGE NUMBER	SIZE	DRAWING NO.	REV.	
D		78-5100-2437-1	J	
MODEL	452	DET	LISTS	YES ☐ NO ☒
SHT 5 OF 5				