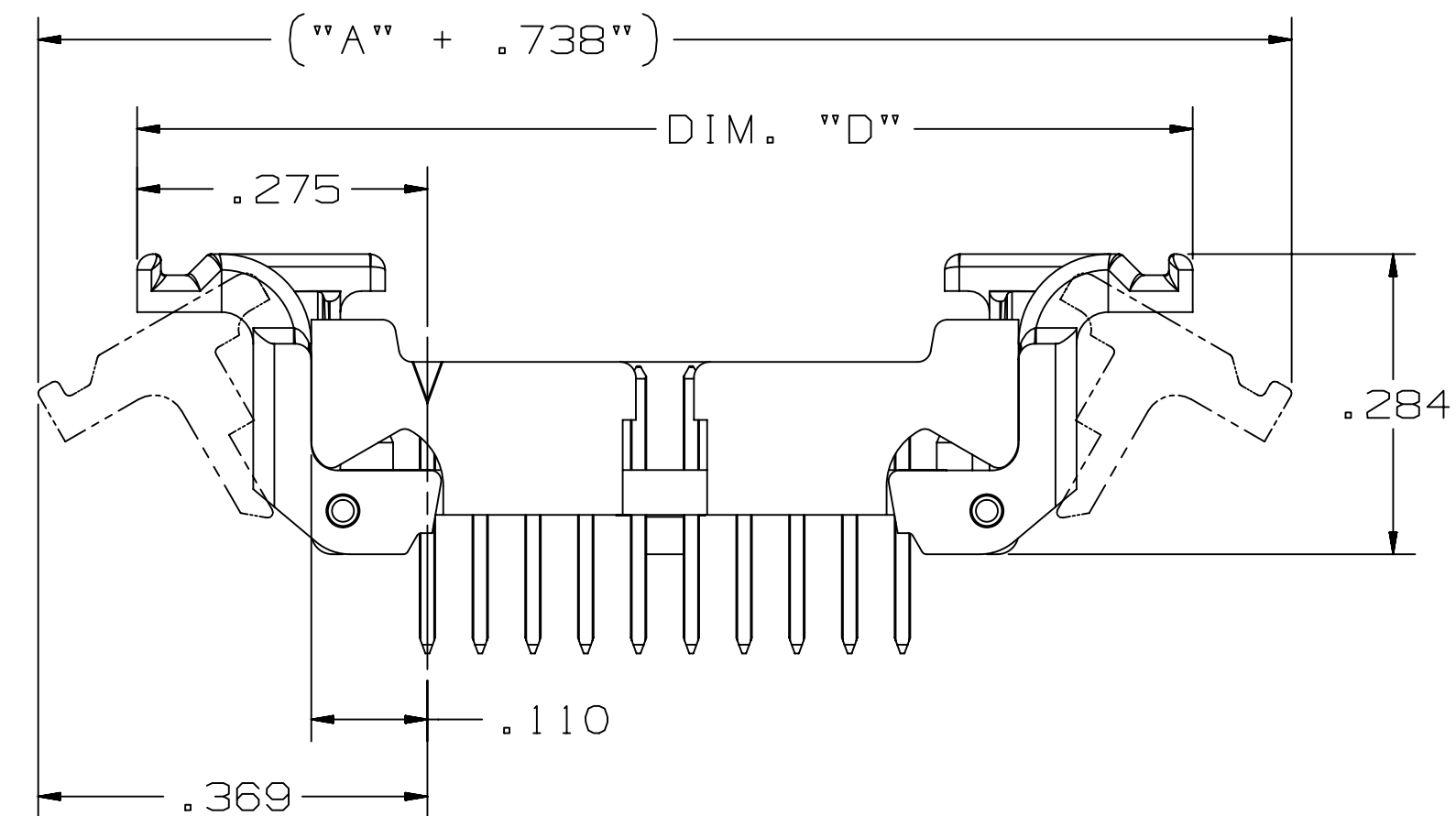
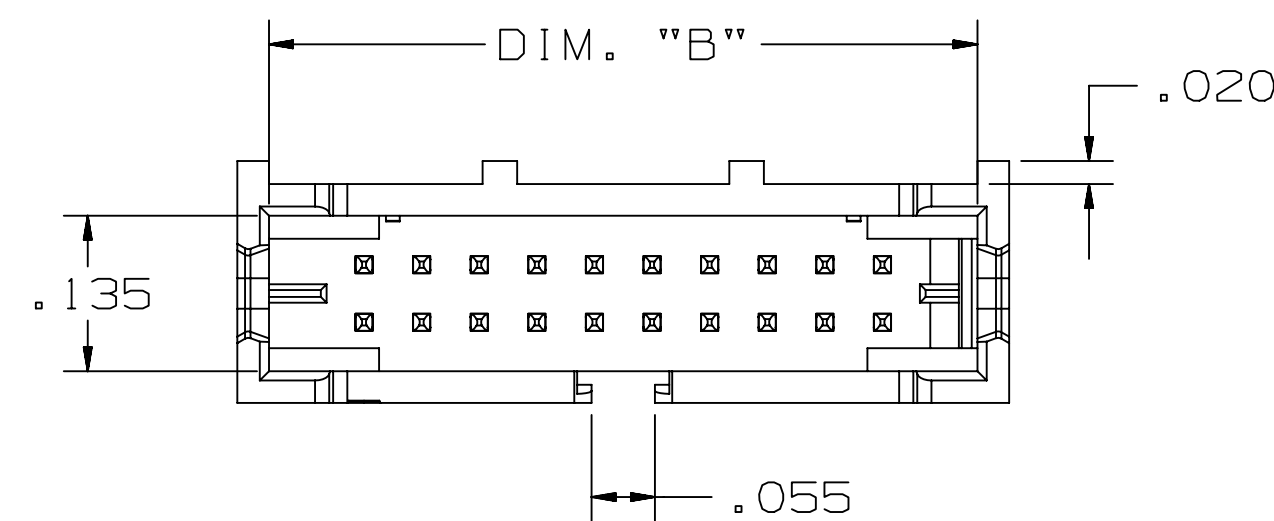
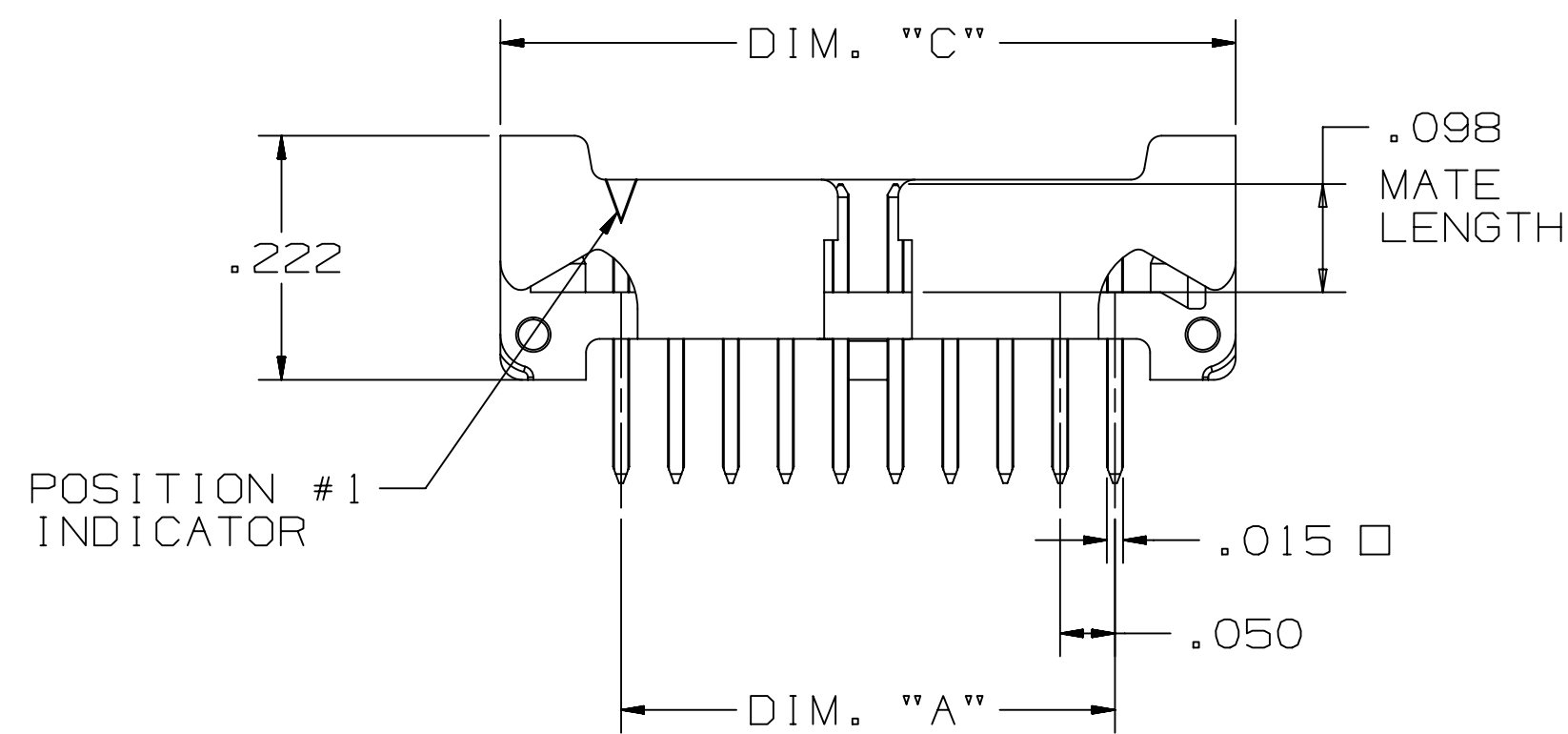
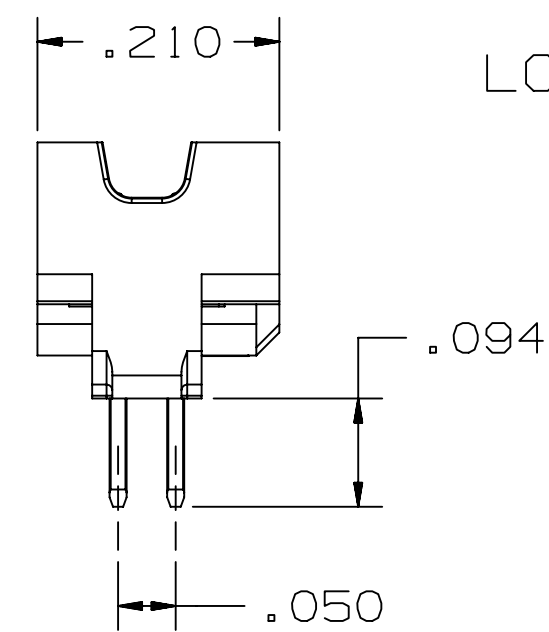


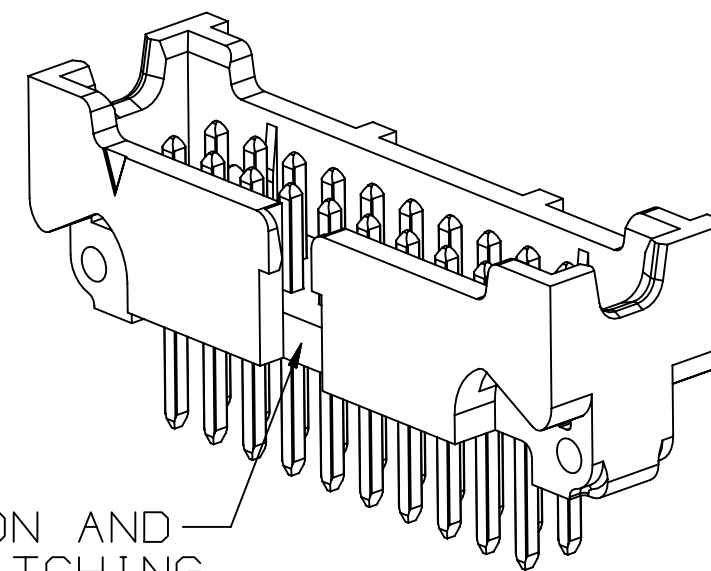
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



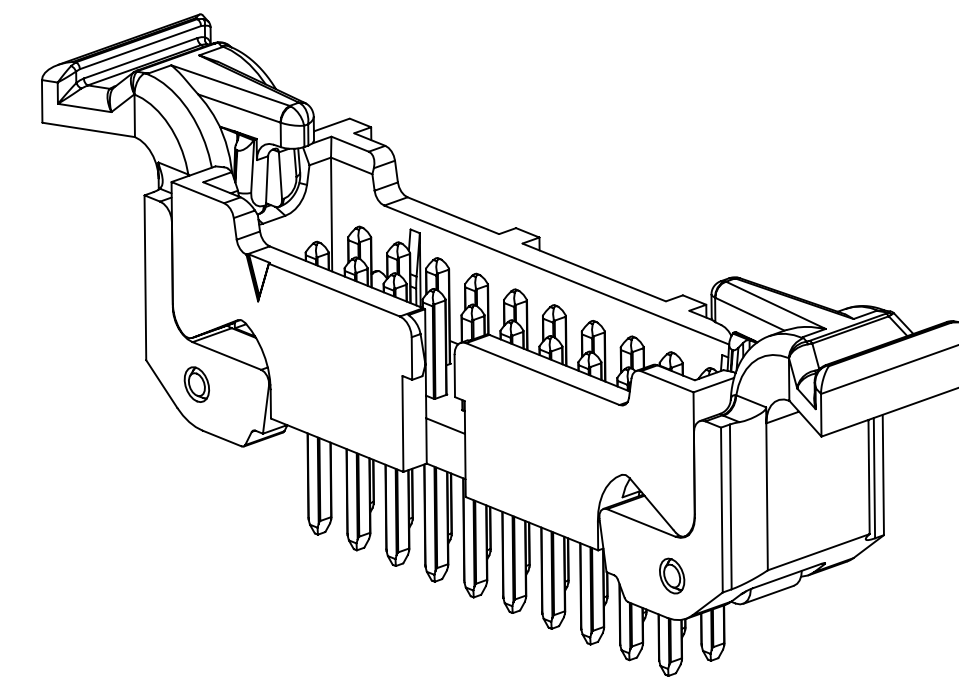
THRU BOARD, VERTICAL WITH
LOW PROFILE LATCH/EJECT OPTION



THRU BOARD, VERTICAL



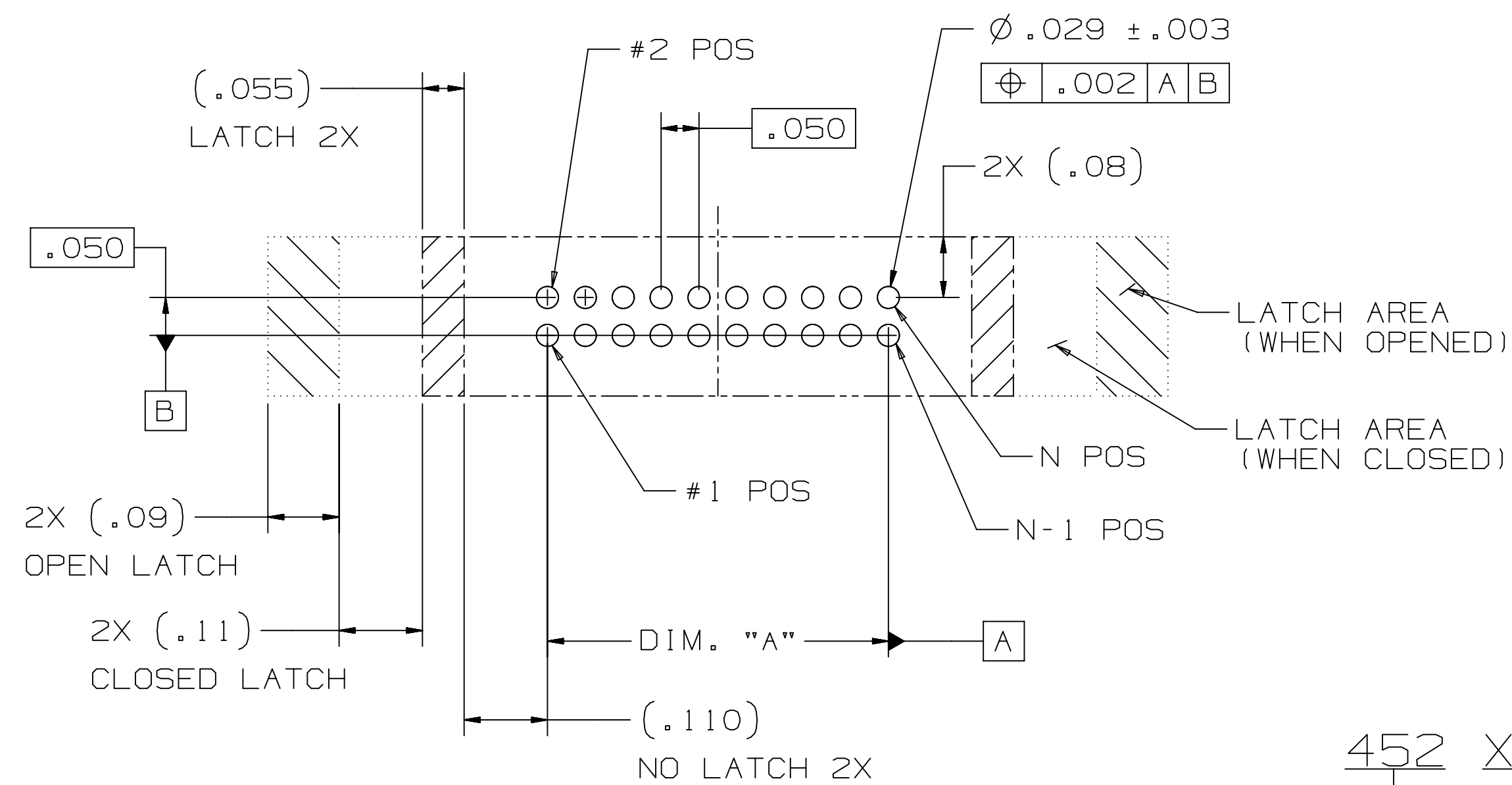
POLARIZATION AND-
FRICTION LATCHING
POSITIONS 8 AND
HIGHER ONLY



WITH LATCH/EJECT

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

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 "
MATTE TIN ON SOLDER TAIL
00 = GOLD FLASH ON WIPING
AREA WITH
100-140 μ " MATTE 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.



RECOMMENDED BOARD LAYOUT

SERIES 452 XX - X X 0 2 XX
 No. OF POSITIONS SEE TABLE I
 PLATING
 00 = AU FLASH
 30 = 30μ" GOLD
 CONTACT TAIL
 2 = STANDARD (.094")

PART CONFIG. AND PACKAGING _____

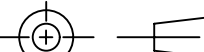
6 = VERTICAL THRU HOLE, TRAY PACKAGING
5 = RIGHT ANGLE THRU HOLE, TRAY PACKAGING
2 = VERTICAL SMT, TAPE AND REEL WITH VAC CAP

3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
<http://www.3M.com/interconnect>

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INFORMATION CALL 800-225-5373

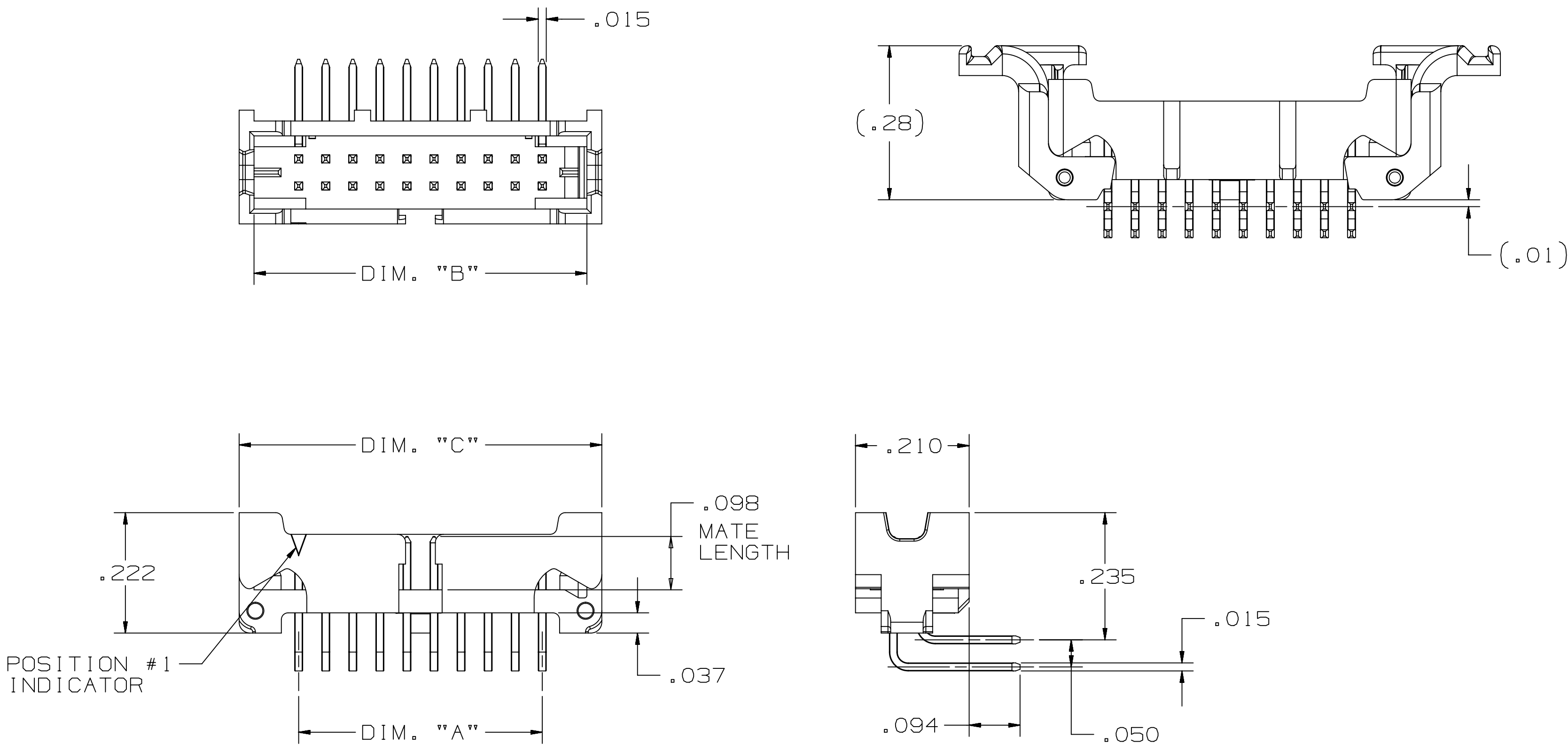
PERFORMANCE:	
CURRENT RATING:	1.0A, UL 04P-50P, NOT FOR CURRENT INTERRUPTION 1.0A, CUL 04P-30P, NOT FOR CURRENT INTERRUPTION 0.75A, CUL 32P-50P, NOT FOR CURRENT INTERRUPTION 0.75A, ALL LINES ENERGIZED 30°C TEMP RISE PER EIA 364-70 1.50A, 6 LINES ENERGIZED 30°C TEMP RISE PER EIA 364-70
UL & CUL VOLTAGE 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

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

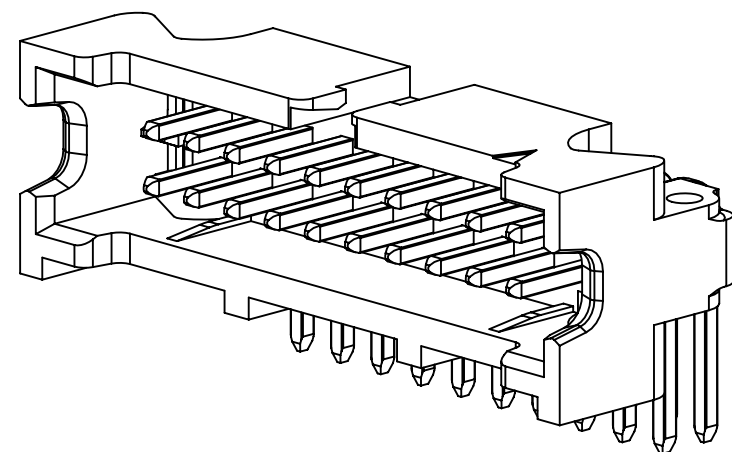
78-5100-2436-3		A 46797		MAR 25, 2013		JNC	SAN
78-5100-2396-9		PRODUCTION RELEASE					
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
ACCESS CODES		DRFT AFFM		DATE NOV 29, 2012	MFG FRC	DATE NOV 29, 2012	
		CHD SAN		DATE NOV 29, 2012	APPL SAN	DATE NOV 29, 2012	
DIVISION		DIVISION CODE EMSD		 © 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.			
DO NOT SCALE DRAWING	SCALE 6 1	TOLERANCES EXCEPT AS NOTED					
		INCHES .0 ±.1 .00 ±.02 .000 ±.010 .0000 ±.0050					
THIRD ANGLE PROJECTION		MILLIMETERS 0 ± .00 ± .000 ± .000 ±		TITLE SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES			
INTERPRET PER ASME Y14.5 - 2018		MAX SURFACE ROUGHNESS					
☐ ALL SURFACES ☒ MARKED ONLY		CAGE NUMBER D 78-5100-2437-1					
		SIZE DRAWING NO. MODEL 452		DET. LISTS ☐ YES ☒ NO SHT 1 OF 5			

UL
UL FILE NO: E68080

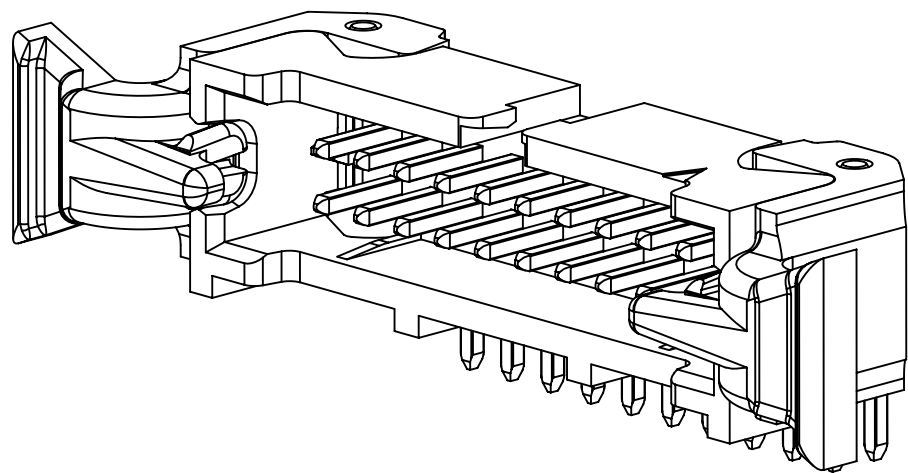
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



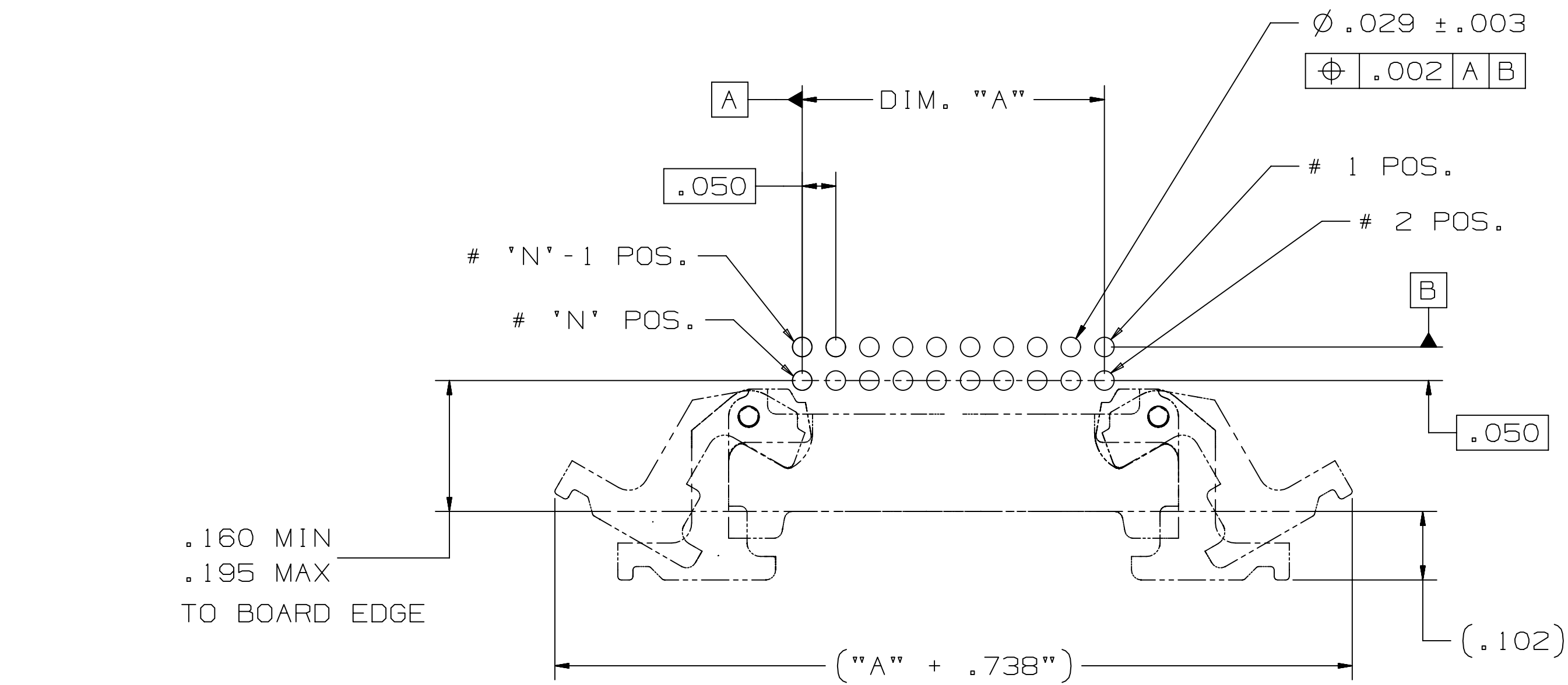
THRU BOARD, RIGHT ANGLE



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

MILLIMETERS 0 ± .1
.00 ± .003
.000 ± .0008

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2018

MAX. SURFACE ROUGHNESS

ALL SURFACES

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

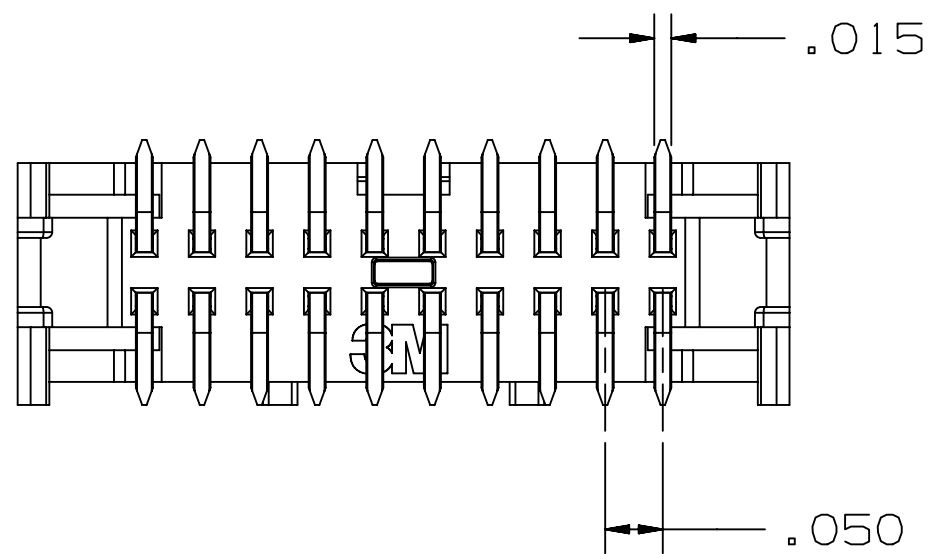
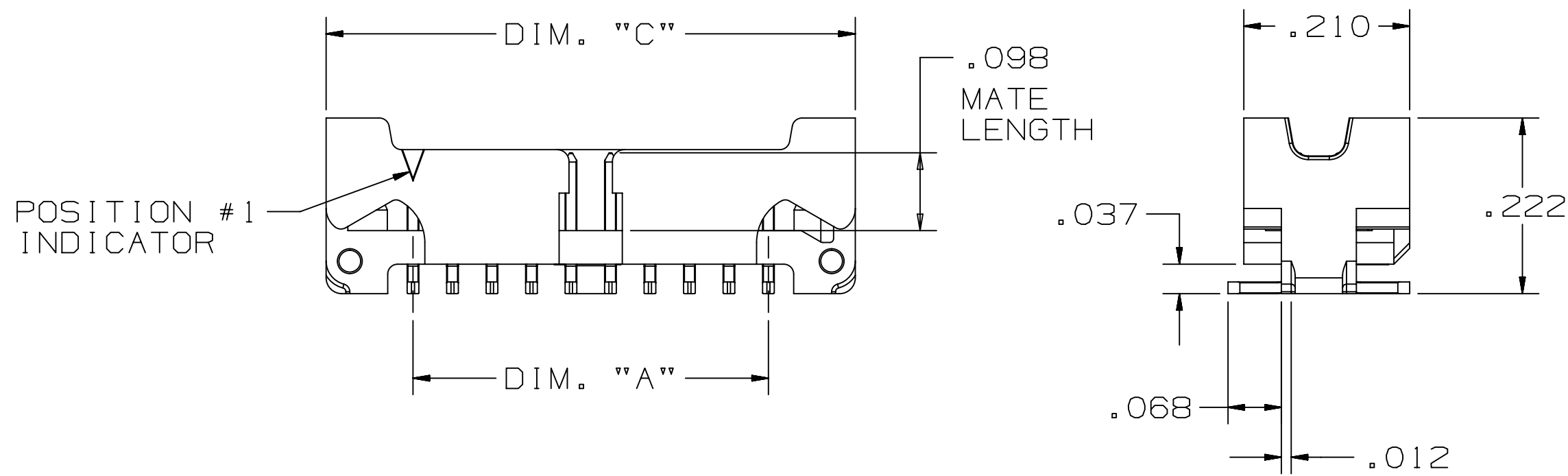
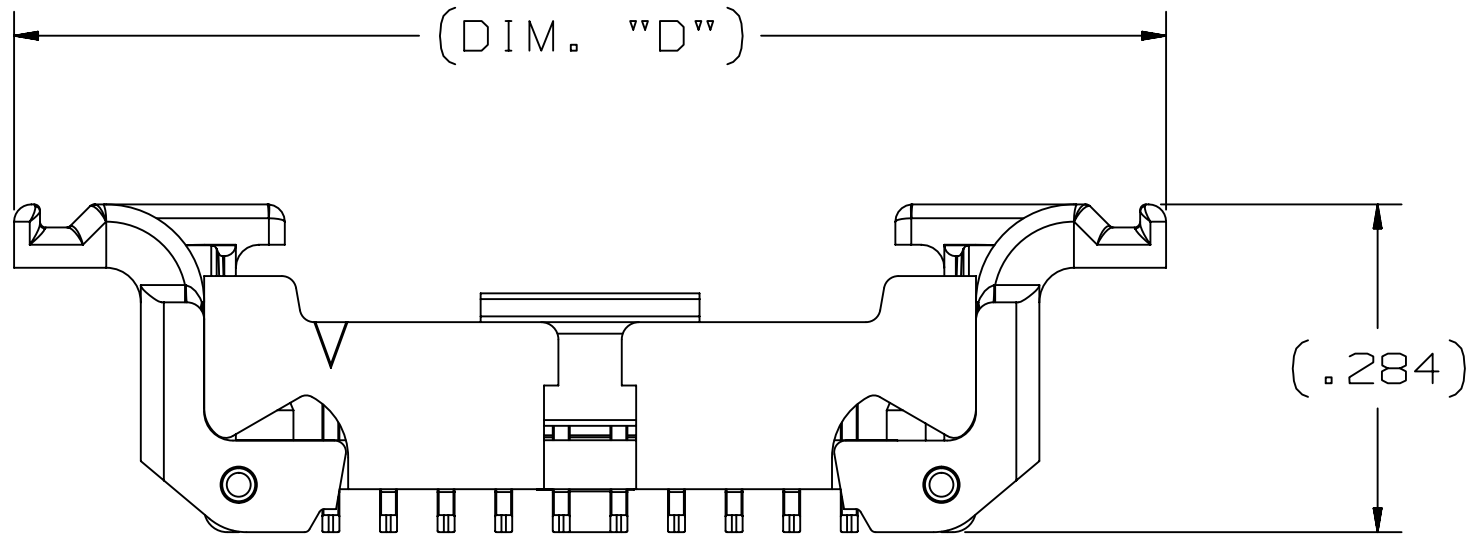
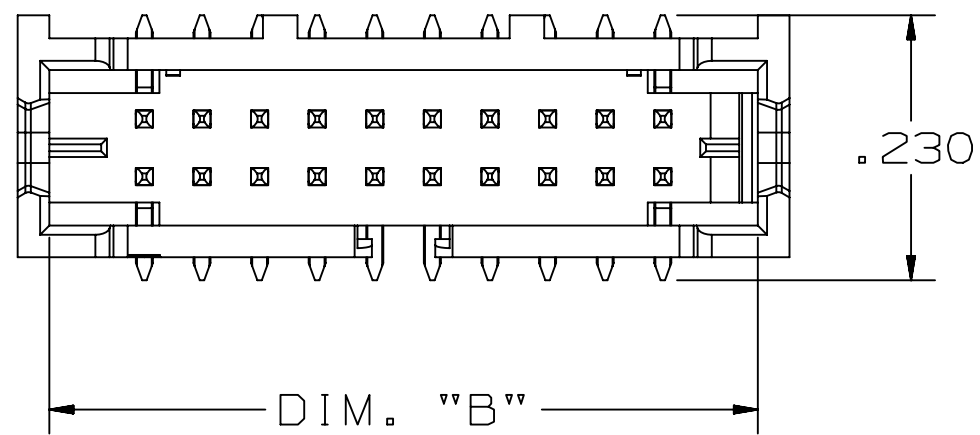
LISTS

YES

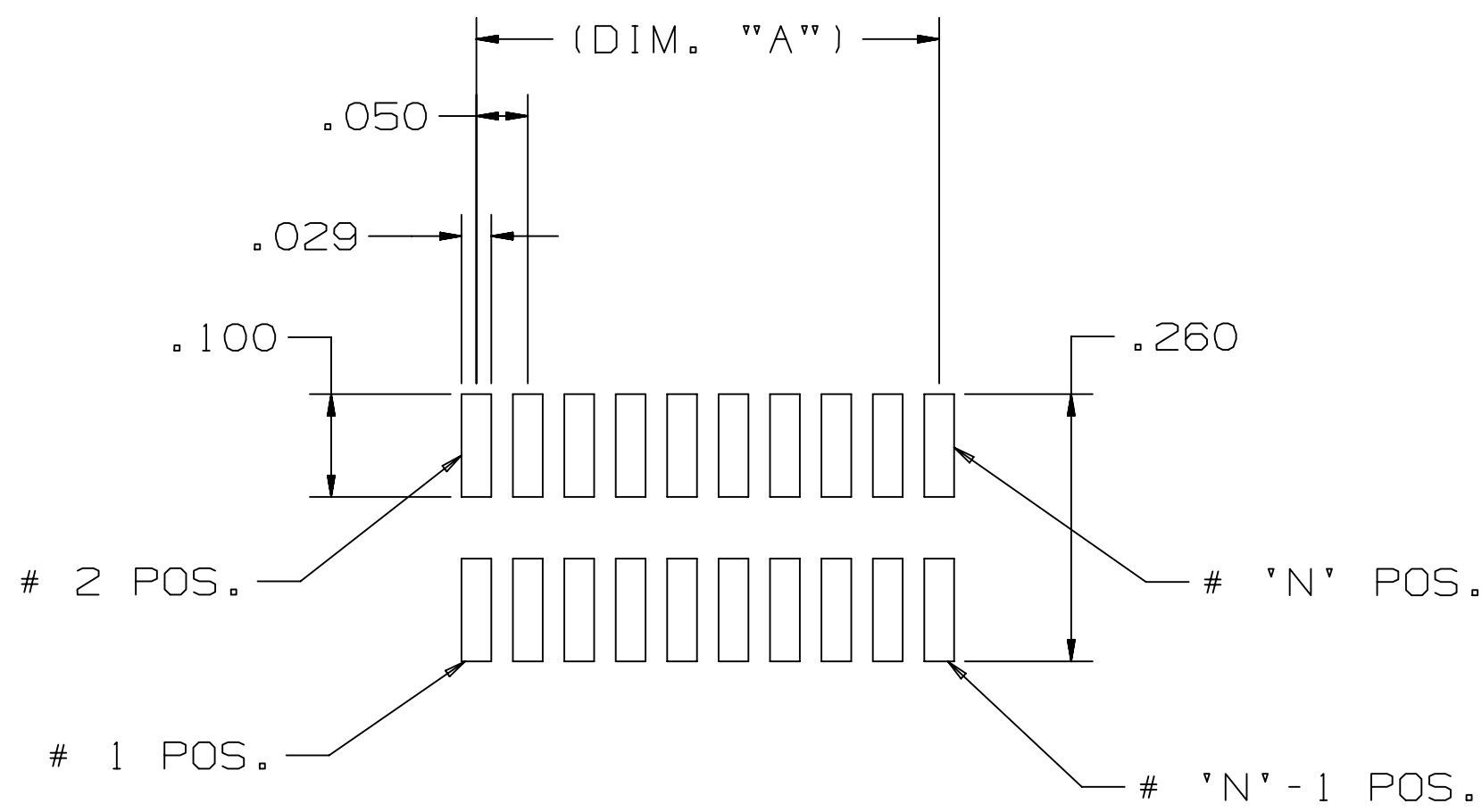
NO

SHT 2 OF 5

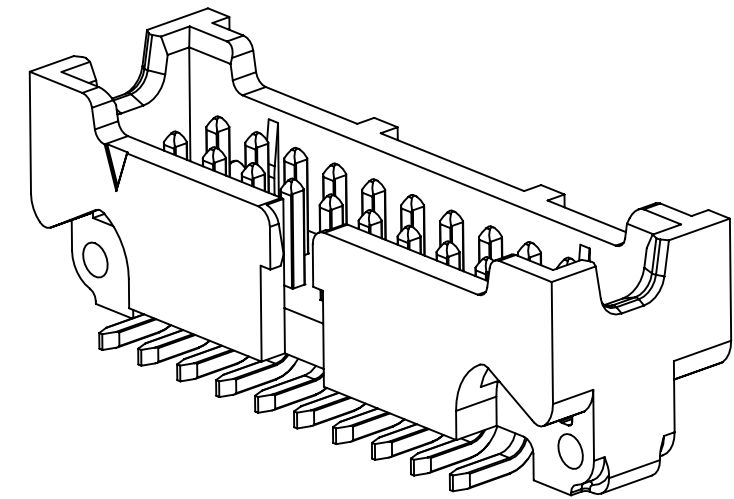
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



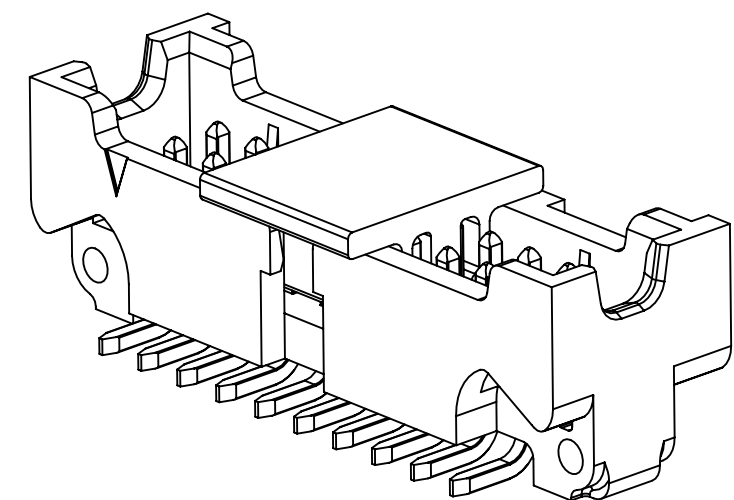
SURFACE MOUNT, VERTICAL



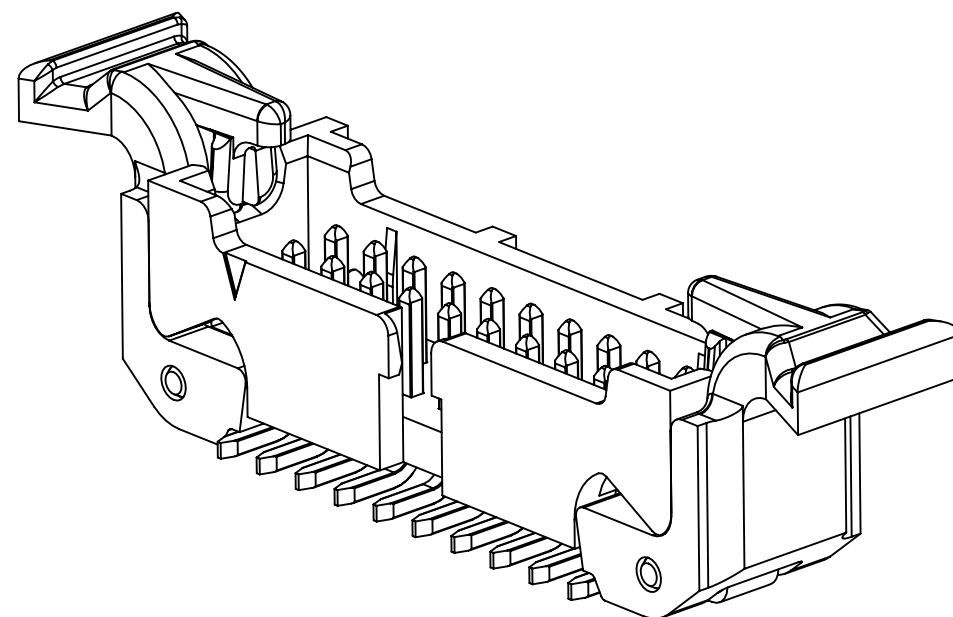
RECOMMENDED BOARD LAYOUT



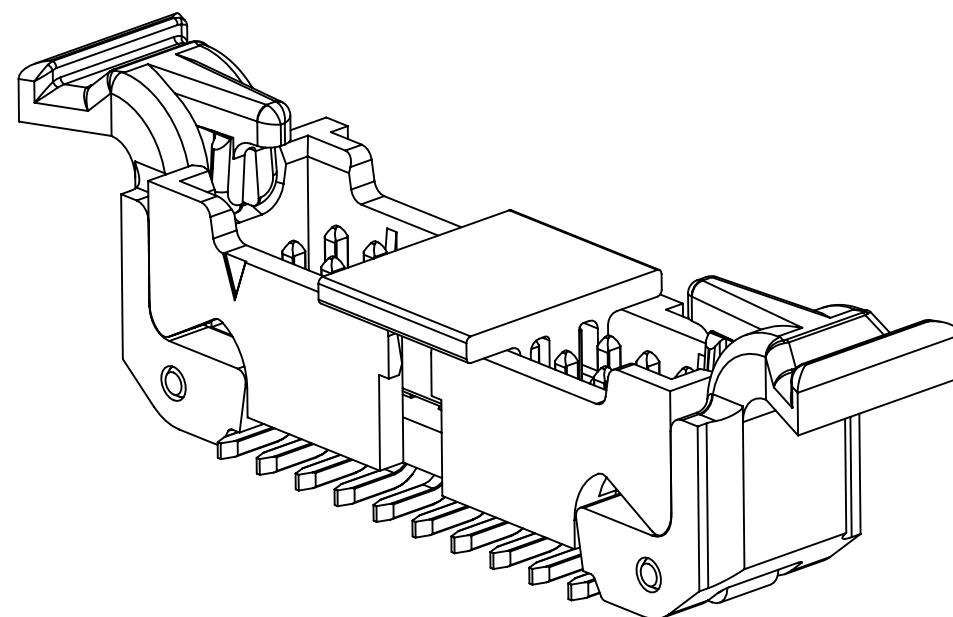
SHROUDED SMT HEADER



WITH VACUUM CAP



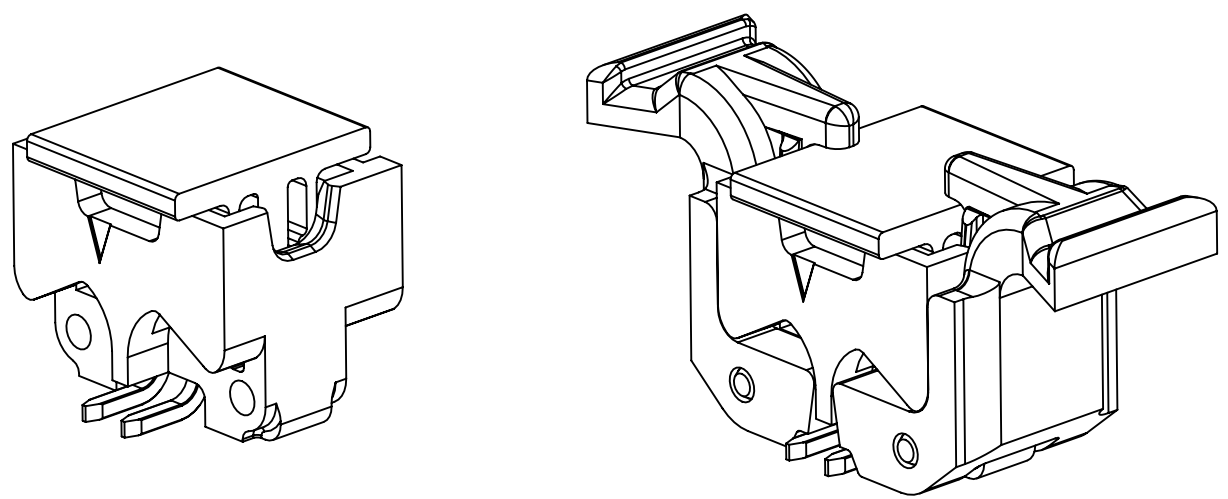
WITH LATCH/EJECT



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

TABLE 1: VERTICAL SMT

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



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

78-5100-2436-3 78-5100-2396-9		NEXT ASSEMBLY		REV	ECO	PRODUCTION RELEASE		DRFT	CHKD
DESIGN REFERENCE		NEXT ASSEMBLY		DATE	DATE	DATE		DATE	DATE
XREF CODES		XREF CODES		ARM	PRC	NOV 29,2012		NOV 29,2012	NOV 29,2012
DIVISION		DIVISION CODE		CHKD	APPR	NOV 29,2012		NOV 29,2012	NOV 29,2012
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THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 2018		TOLERANCES EXCEPT AS NOTED					
MAX. SURFACE ROUGHNESS		ALL SURFACES		MILLIMETERS		TITLE			
✓ MARKED ONLY		✓ MARKED ONLY		INCHES		SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES			
				MILLIMETERS					
				CAGE NUMBER		DRAWING NO.		REV.	
				D78-5100-2437-1		J			
				MODEL		452		SHT 3 OF 5	

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

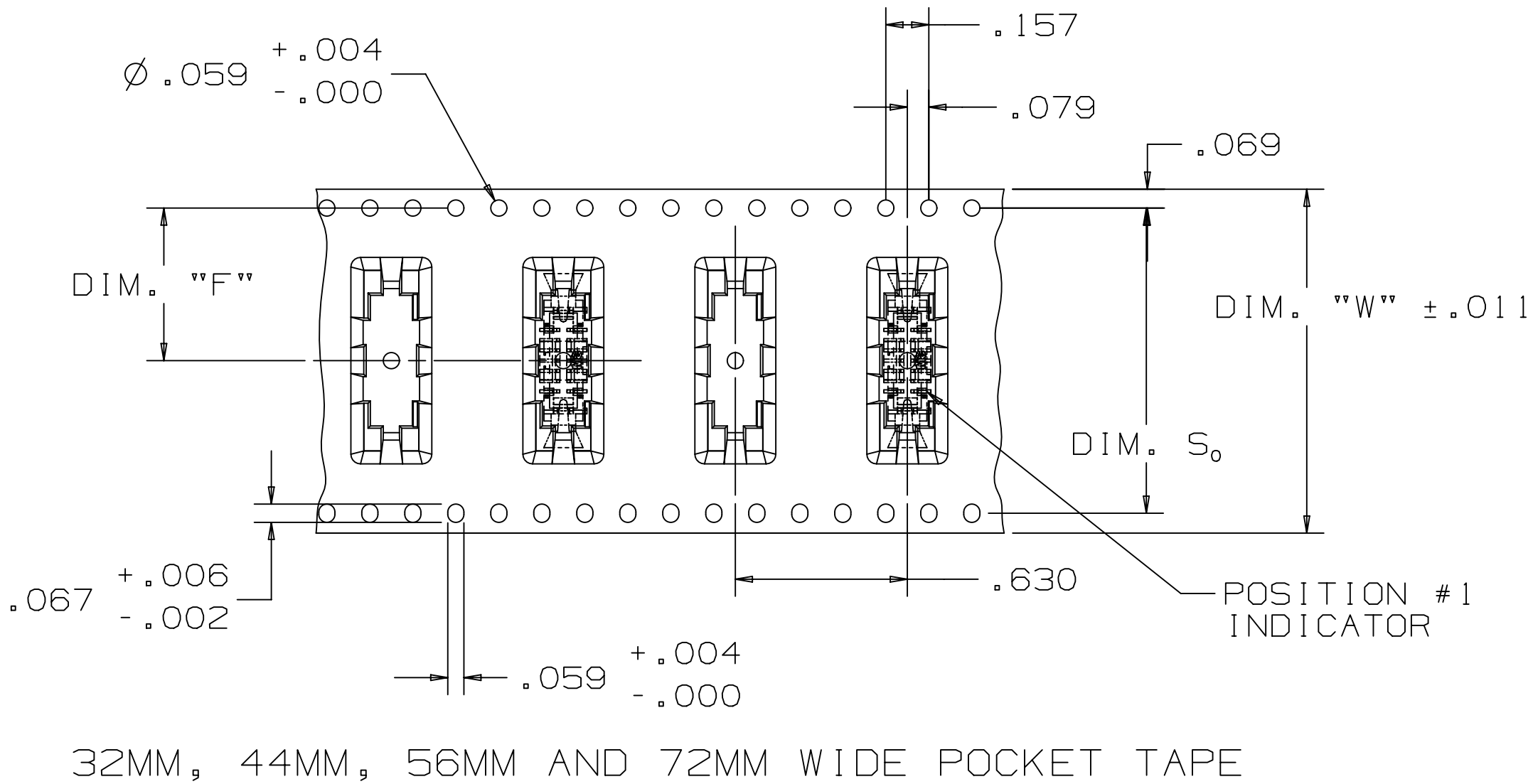
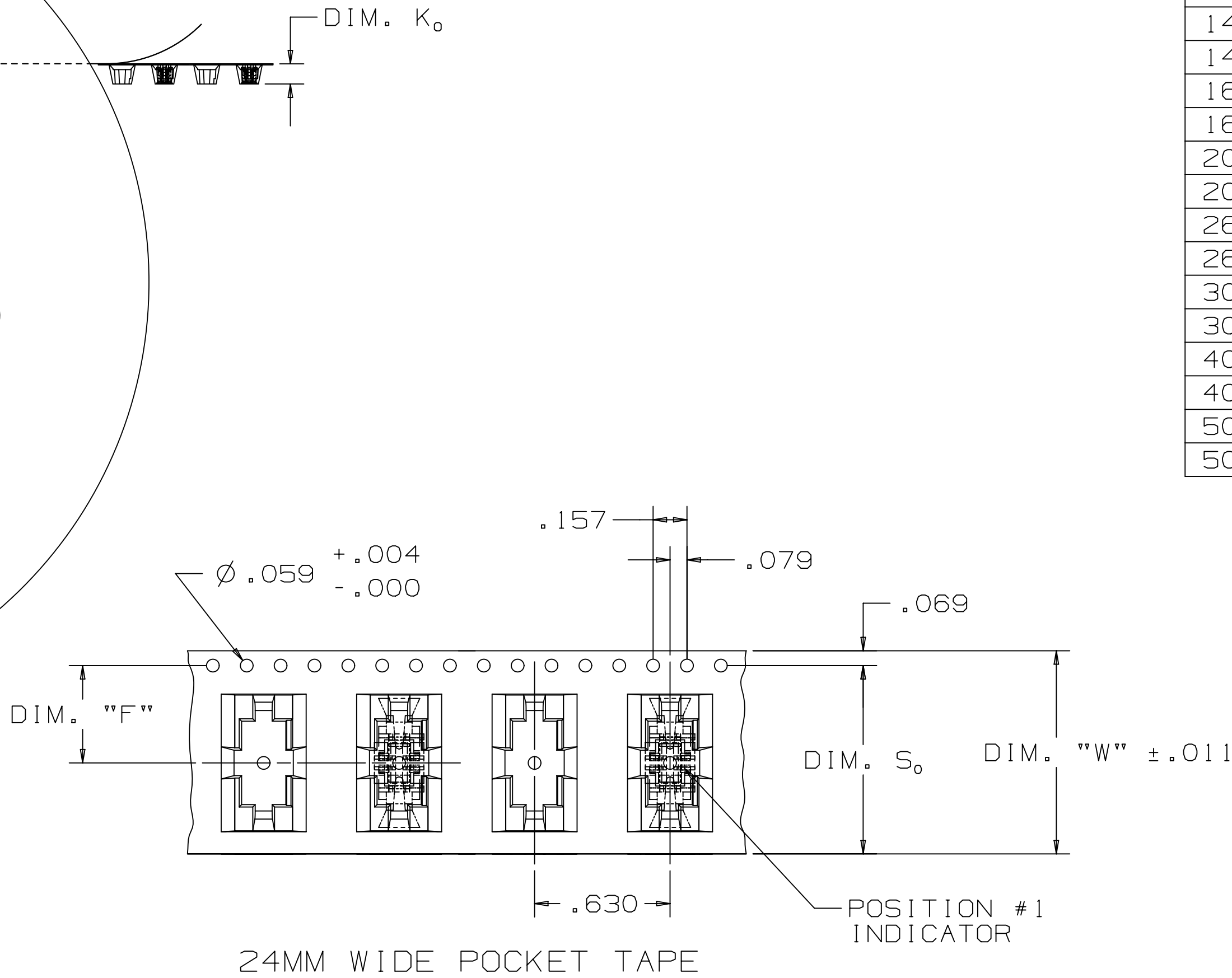
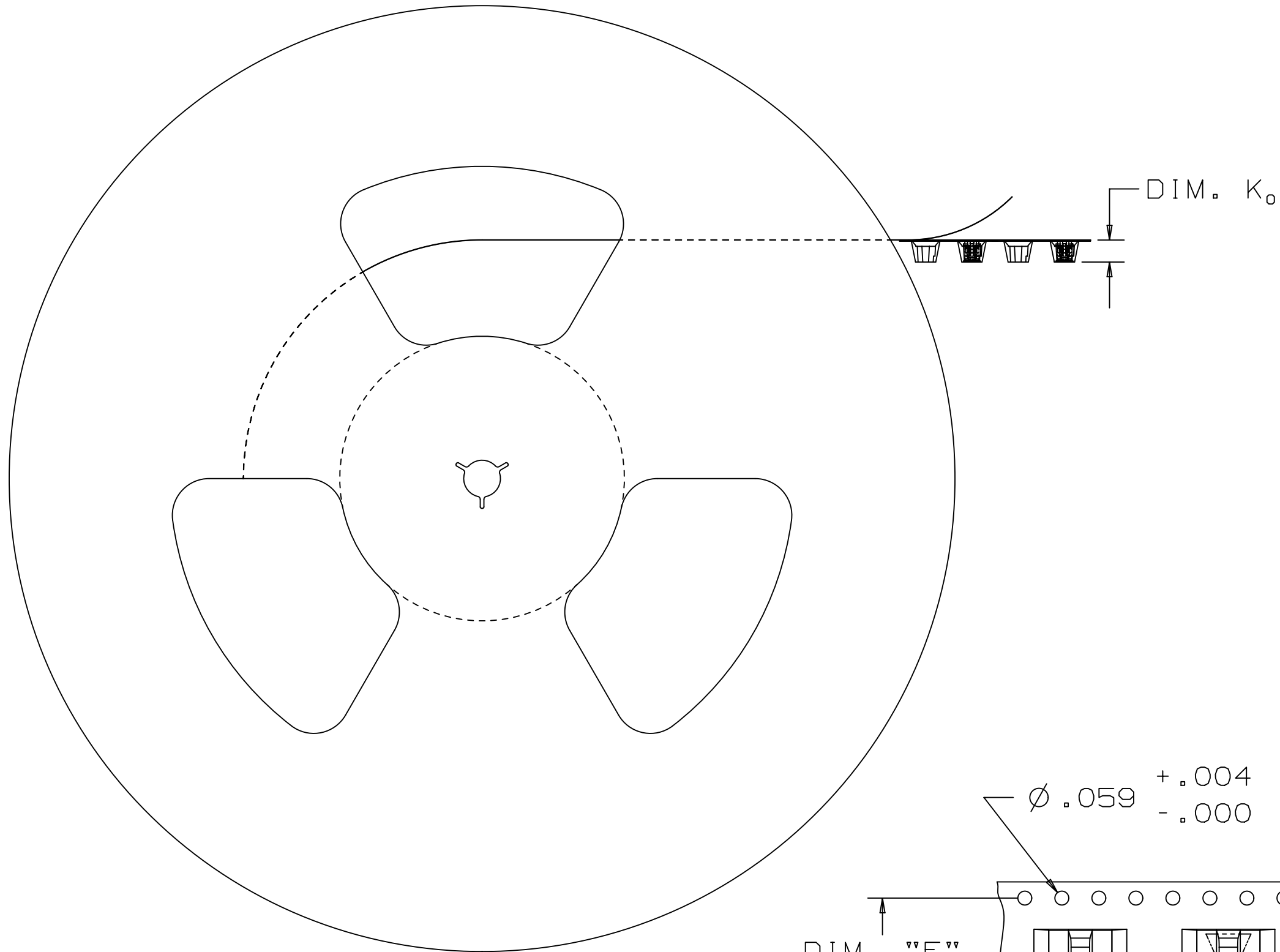
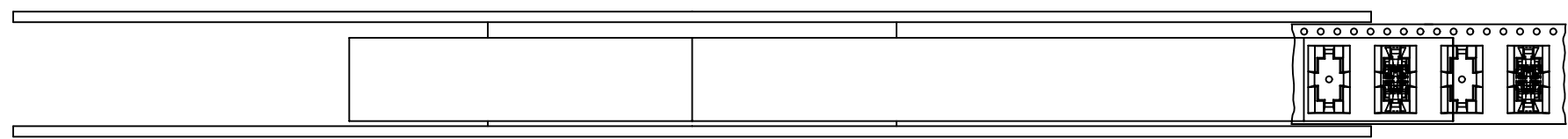


TABLE 2
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

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]

NOTE:
LATCH AND EJECT HEADERS ARE PACKAGED WITH THE
LATCHES IN AN OPEN POSITION.

78-5100-2436-3 78-5100-2396-9		NEXT ASSEMBLY	
DESIGN REFERENCE		NEXT ASSEMBLY	
DATE	DATE	DATE	DATE
NOV 29,2012	NOV 29,2012	NOV 29,2012	NOV 29,2012
DRFT	ECN	ISSUE	DATE AND DESCRIPTION
ARM	NOV 29,2012	PRC	NOV 29,2012
CHKD	NOV 29,2012	APPR	NOV 29,2012
SAN	NOV 29,2012	SAN	NOV 29,2012
DIVISION		DIVISION CODE	
		EMSD	
DO NOT SCALE DRAWING		TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION		INCHES	
INTERPRET PER ASME Y14.5 - 2018		MILLIMETERS	
MAX. SURFACE ROUGHNESS		ANGLES	
ALL SURFACES			
MARKED ONLY			

J	105041	MAY 26,2022		JNC	SAN
		REVISE PERFORMANCE SECTION			
H	100200	OCT 19,2021		JNC	SAN
		ADD POS 26, 40, 50			
G	92270	AUG 18,2020		JNC	SAN
		REVISE NOTES			
F	56988	SEP 24,2014		JNC	SN
		REVISE PERFORMANCE CHART			
E	54514	JUN 19,2014		SJS	SAN
		ADD UL LOGO, ADD 56MM T&R			
D	51884	JAN 08,2014		SJS	SAN
		ADD DESIGN REF, UPDATE TITLE,			
C	50290	OCT 08,2013		JNC	SN
		REVISE NOTE 1, 9 & OPERATING TEMP.			
B	48635	JUL 12,2013		JNC	SN
		MATCH TEXT FONTS & ADD NOTE 9			
A	46797	MAR 25,2013		JNC	SAN
		PRODUCTION RELEASE			
REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DRFT	ARM	DATE	NOV 29,2012	MRP	PRC
CHKD	SAN	DATE	NOV 29,2012	APPL	SAN
		DATE	NOV 29,2012	DATE	NOV 29,2012



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St. Paul,
MN 55114

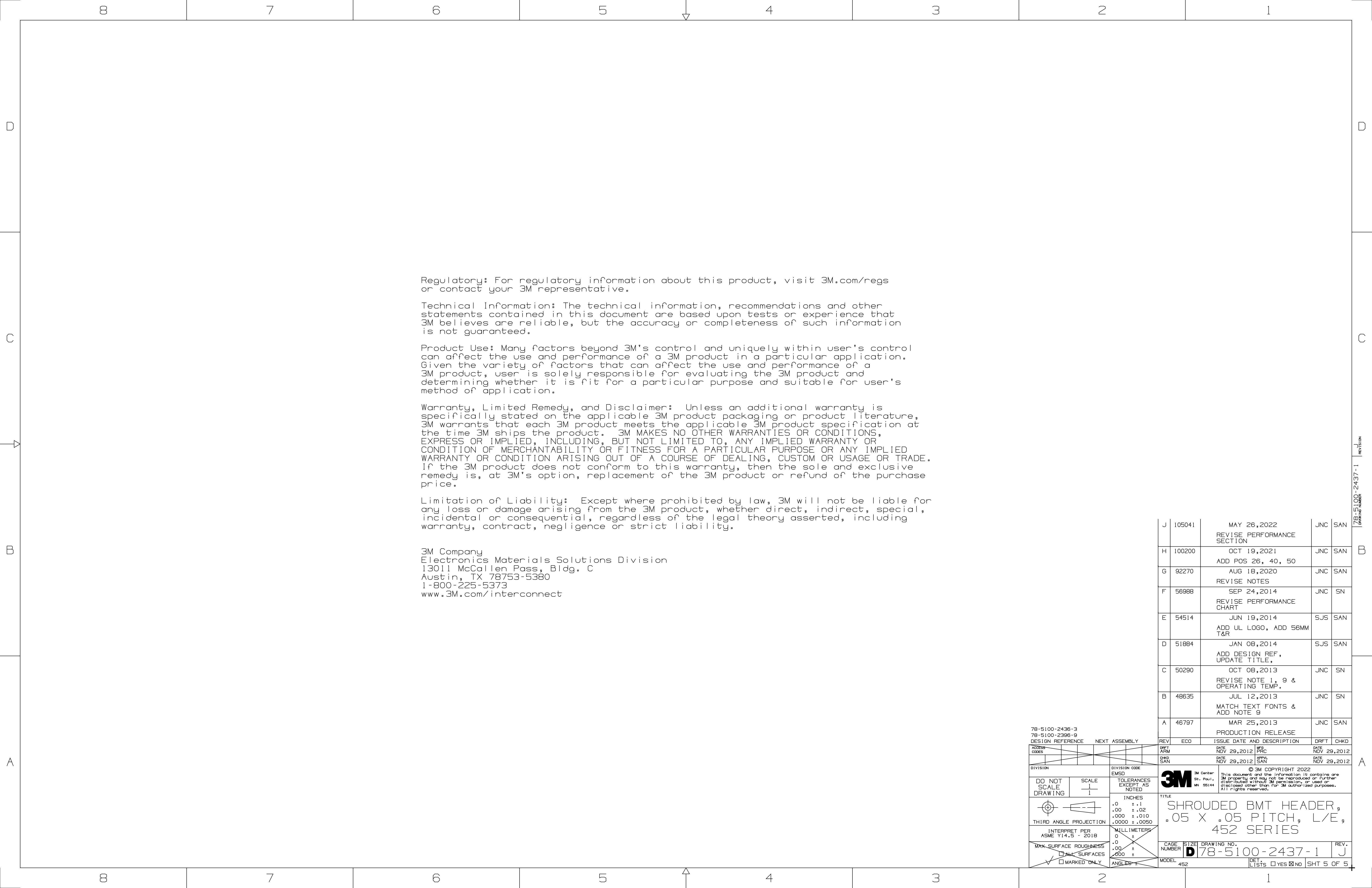
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TITLE

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	4 OF 5



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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				