

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

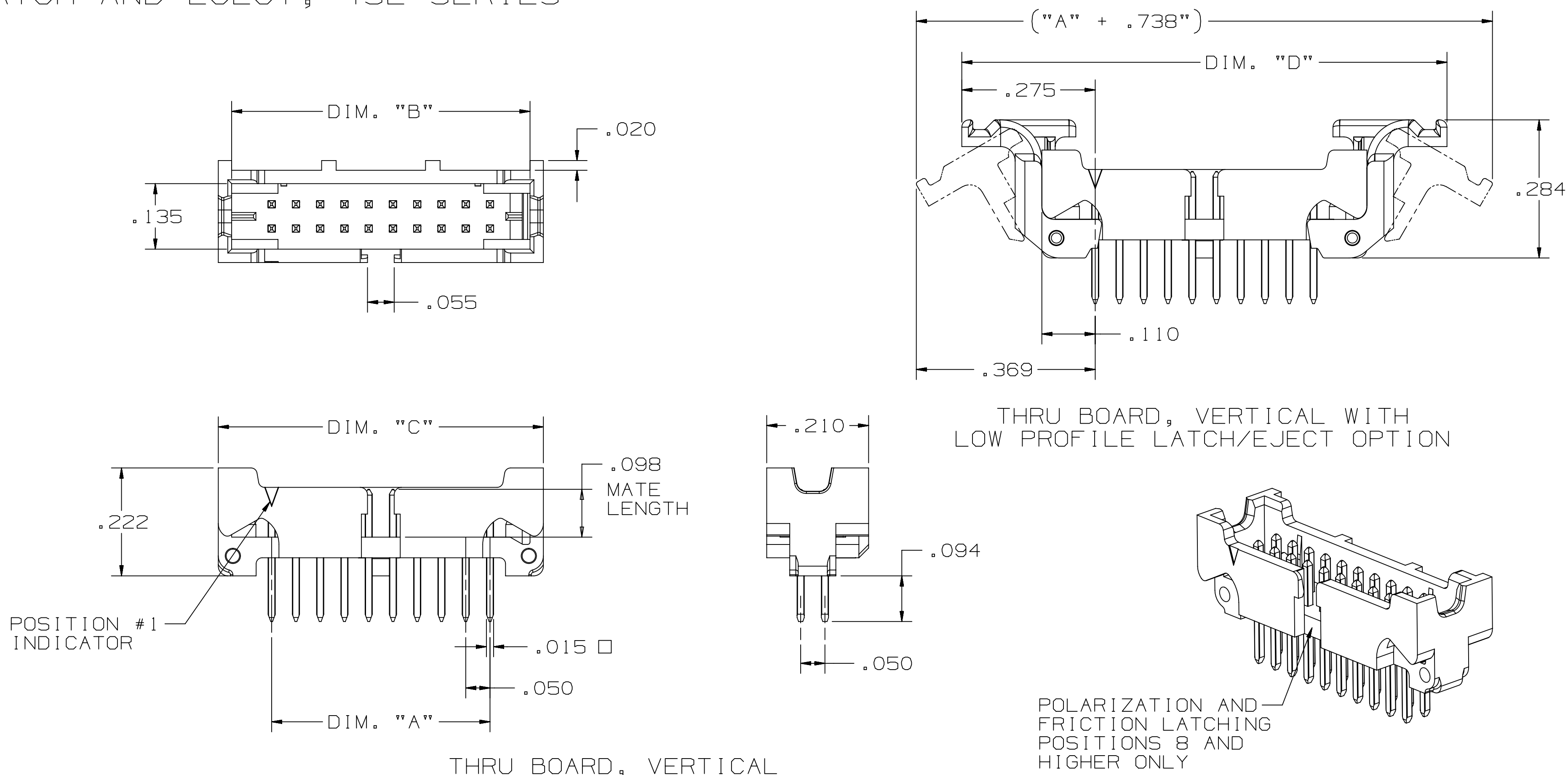
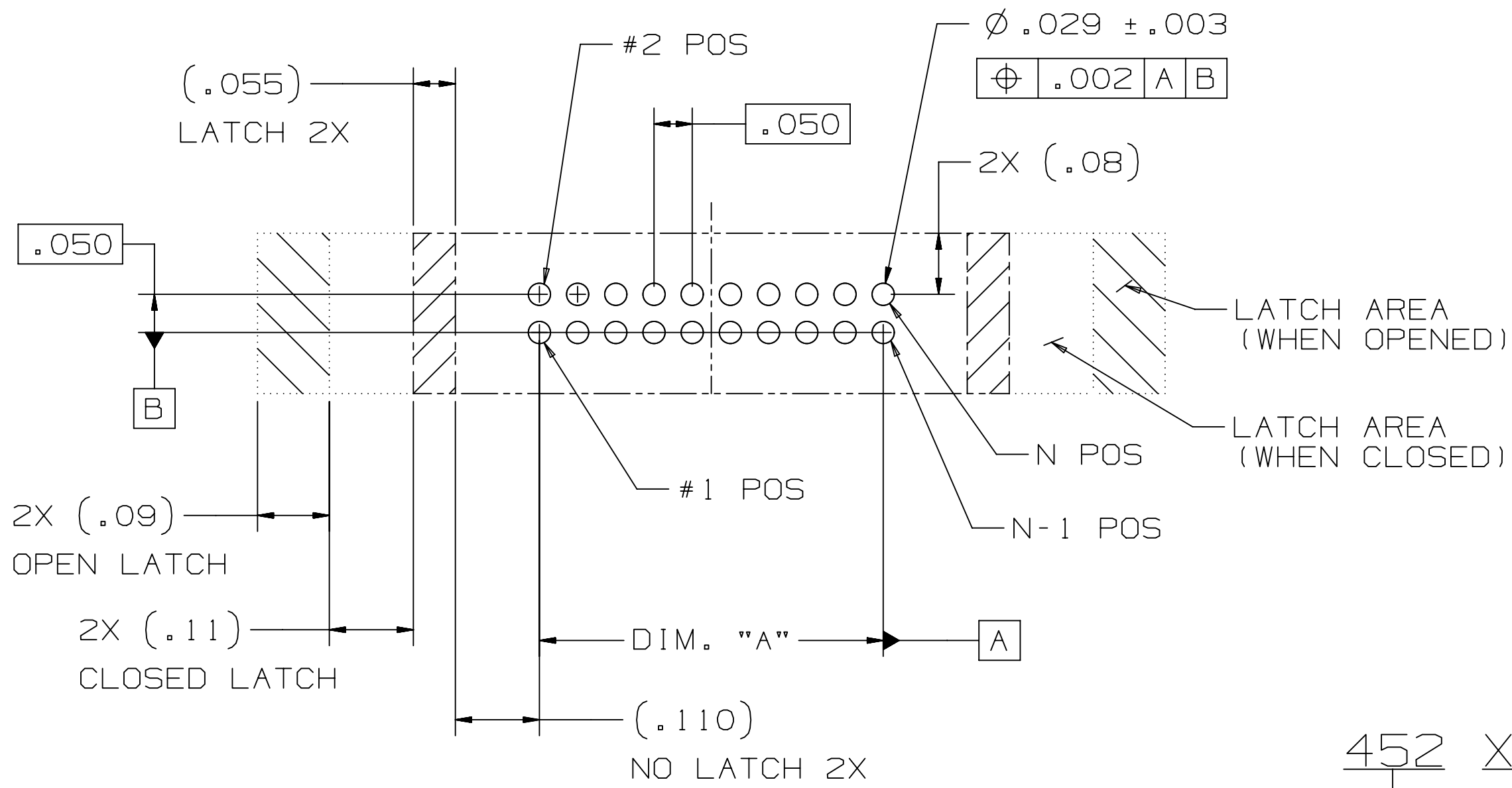


TABLE 1: VERTICAL THRU				
No. of Positions	Dim "A"	Dim "B"	Dim "C"	Dim "D"
4	.050	.215	.270	.600
6	.100	.265	.320	.650
8	.150	.315	.370	.700
10	.200	.365	.420	.750
12	.250	.415	.470	.800
14	.300	.465	.520	.850
16	.350	.515	.570	.900
20	.450	.615	.670	1.000
26	.600	.765	.820	1.150
30	.700	.865	.920	1.250
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:
50-150µ" NICKEL UNDERPLATE
30 = 30µ" GOLD MIN. ON
WIPING AREA WITH 200µ"
MATTE TIN ON SOLDER TAIL
00 = GOLD FLASH ON WIPING
AREA WITH
100-140µ" 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.

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



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

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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

452 XX - X X 0 2 XX
SERIES
No. OF POSITIONS
SEE TABLE 1
PLATING
00 = AU FLASH
30 = 30µ" GOLD
CONTACT TAIL
2 = STANDARD (.094")

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

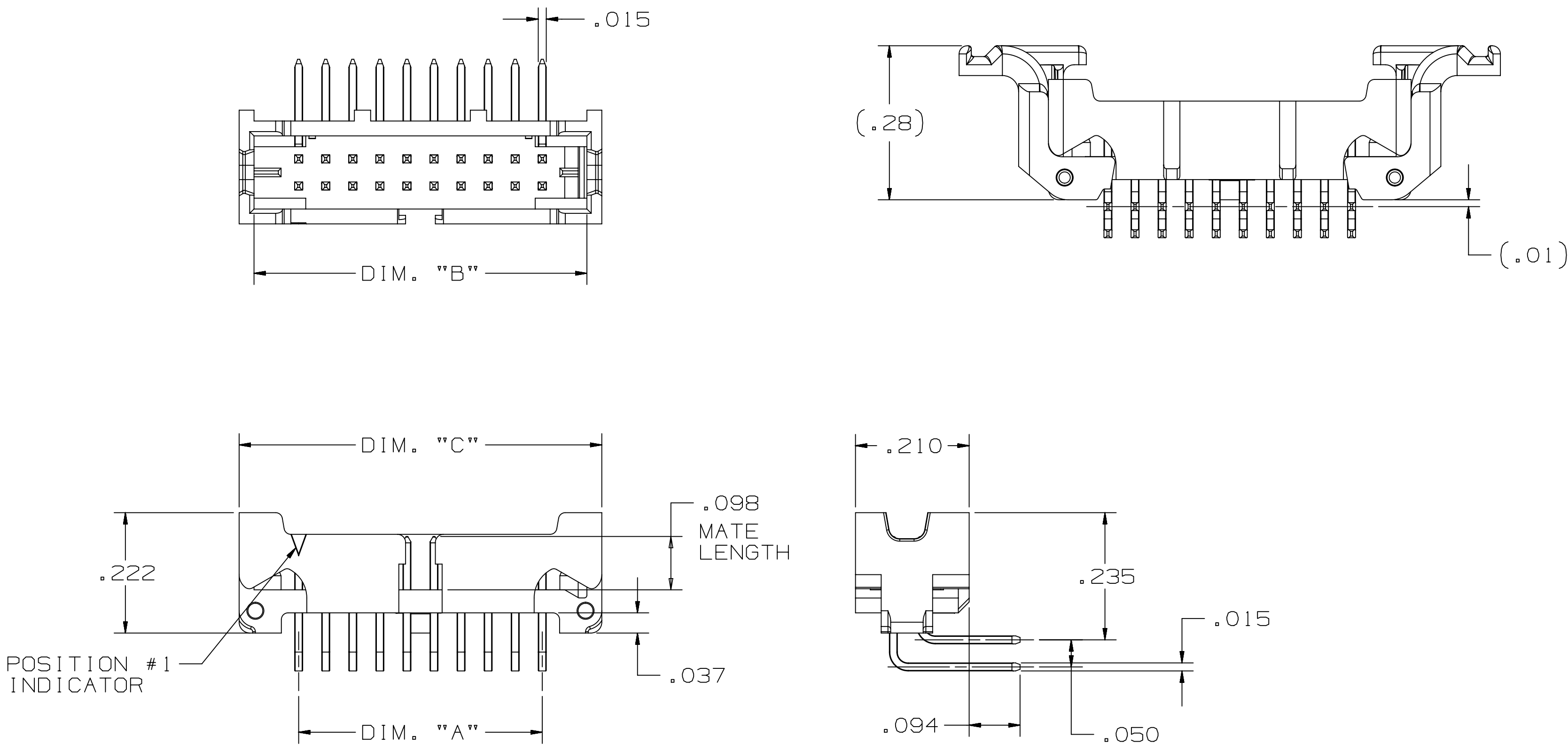
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J	105041	MAY 26, 2022	JNC	SAN
H	100200	OCT 19, 2021	JNC	SAN
G	92270	AUG 18, 2020	JNC	SAN
F	56988	SEP 24, 2014	JNC	SN
E	54514	JUN 19, 2014	SJS	SAN
D	51884	JAN 08, 2014	SJS	SAN
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B	48635	JUL 12, 2013	JNC	SN
A	46797	MAR 25, 2013	JNC	SAN

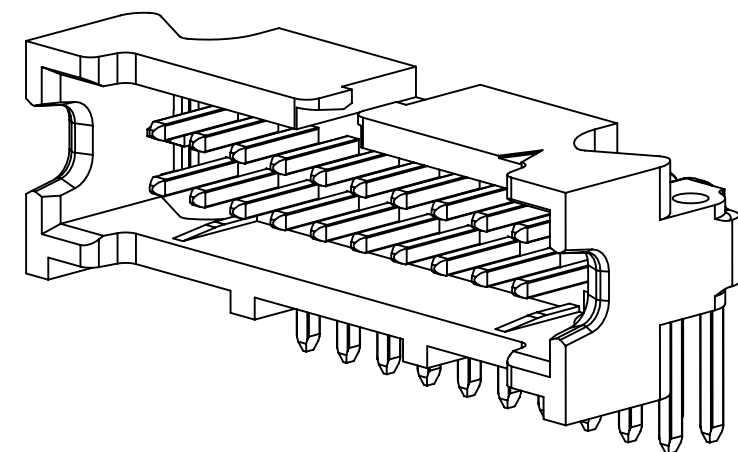
78-5100-2436-3	78-5100-2396-9	DESIGN REFERENCE	NEXT ASSEMBLY
DO NOT SCALE DRAWING	SCALE 6/1	TOLERANCES EXCEPT AS NOTED	INCHES .01 ±.01 .00 ±.02 .000 ±.010 .0000 ±.0050
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2018	MILLIMETERS 0 ±.00 ±.00 ±.000	ANGLES 1/2° ±.00 ±.00 ±.000
MAX. SURFACE ROUGHNESS	ALL SURFACES	MARKED ONLY	ANGLES 1/2° ±.00 ±.00 ±.000

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
NOV 29, 2012	PRC	NOV 29, 2012	NOV 29, 2012	NOV 29, 2012
NOV 29, 2012	SAN	NOV 29, 2012	NOV 29, 2012	NOV 29, 2012
3M	Center	St. Paul, MN 55144	© 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.
TITLE	SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES	CAGE NUMBER	SIZE	DRAWING NO.
MODEL	452	REV.	J	78-5100-2437-1
LISTS	YES	NO	SHT 1 OF 5	

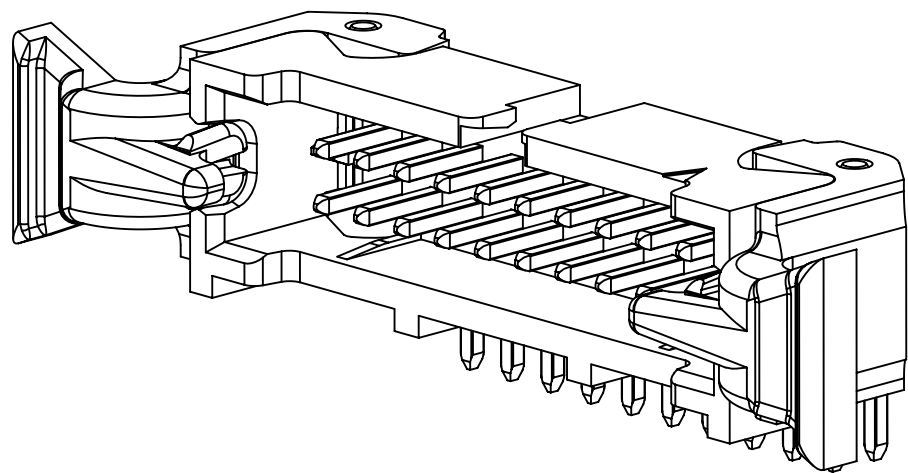
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



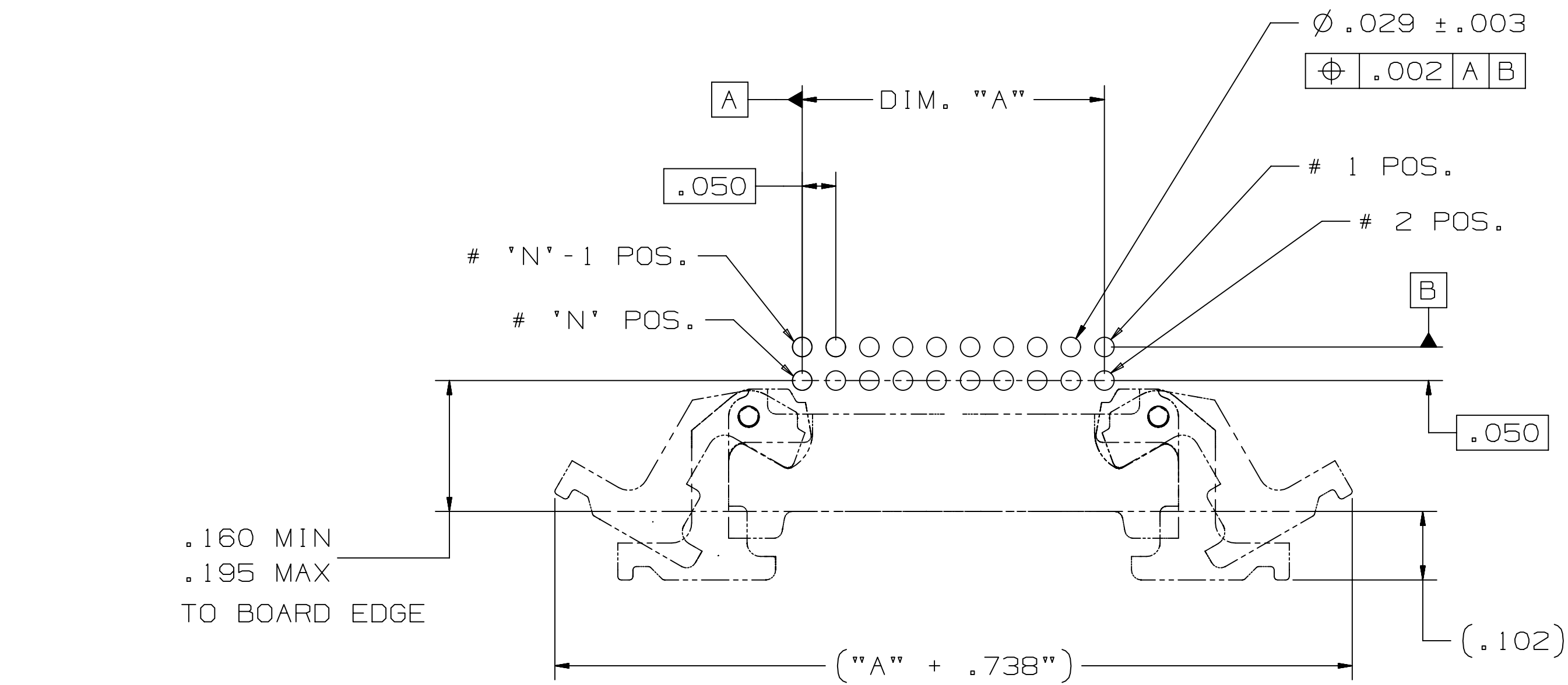
THRU BOARD, RIGHT ANGLE



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 12.5 μm (500 μin) UNLESS OTHERWISE SPECIFIED

MARKED ONLY

DIVISION

EMSD

REVISIONS

REV ECO

ISSUE DATE AND DESCRIPTION

DRFT

CHKD

DATE

NOV 29, 2012

PRC

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

DET

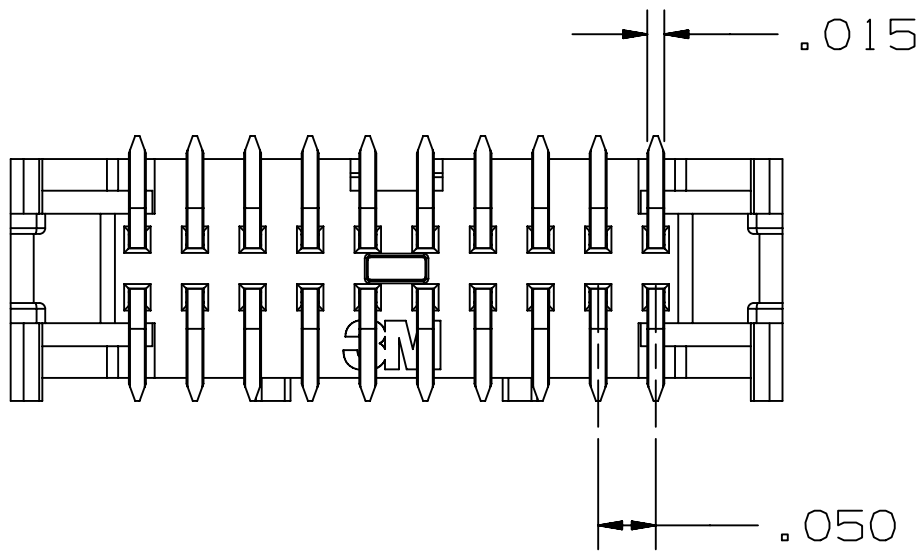
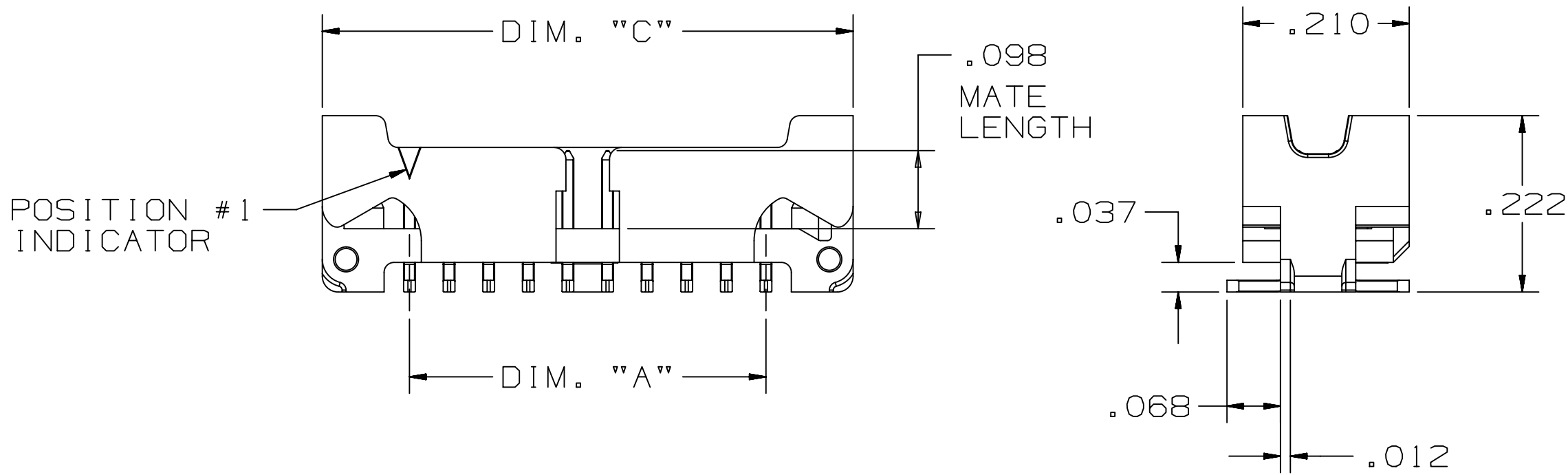
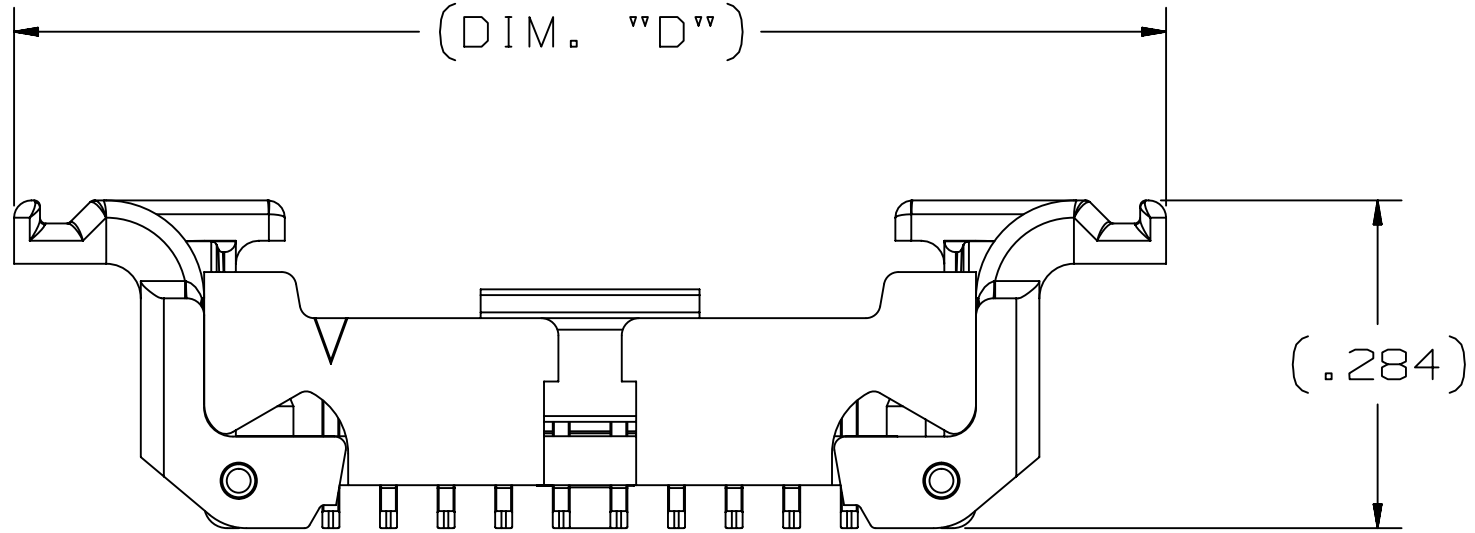
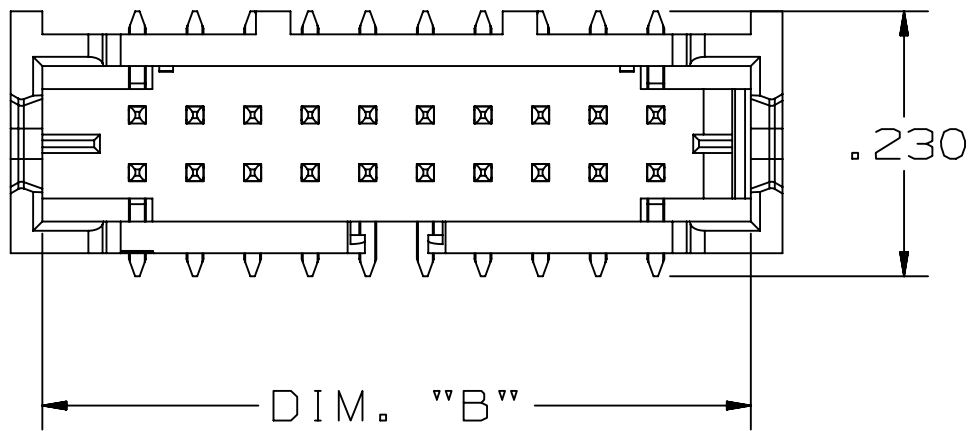
LISTS

YES

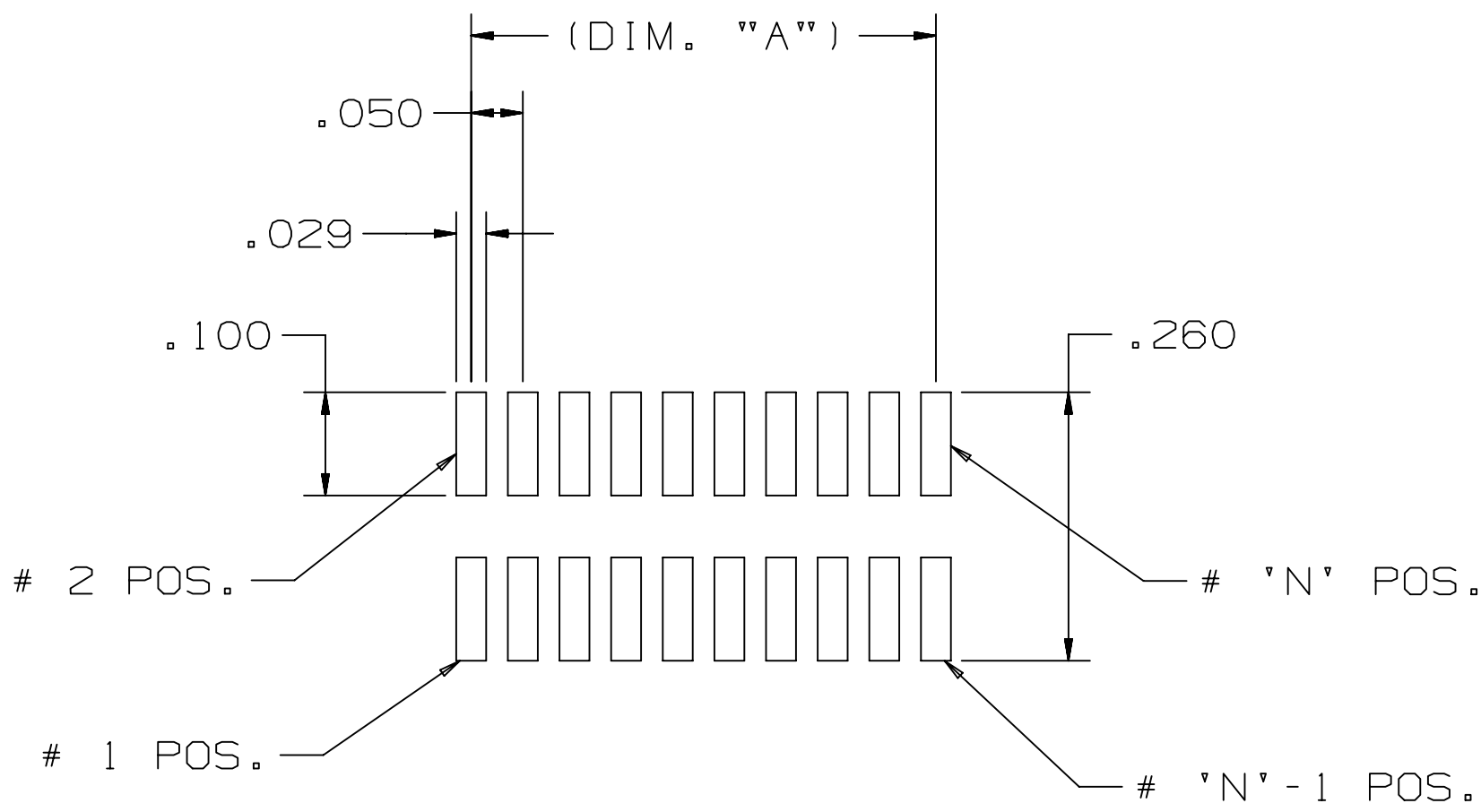
NO

SHT 2 OF 5

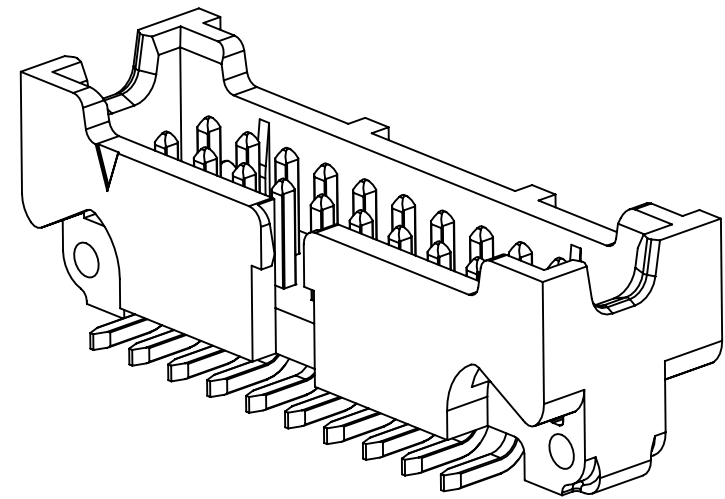
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



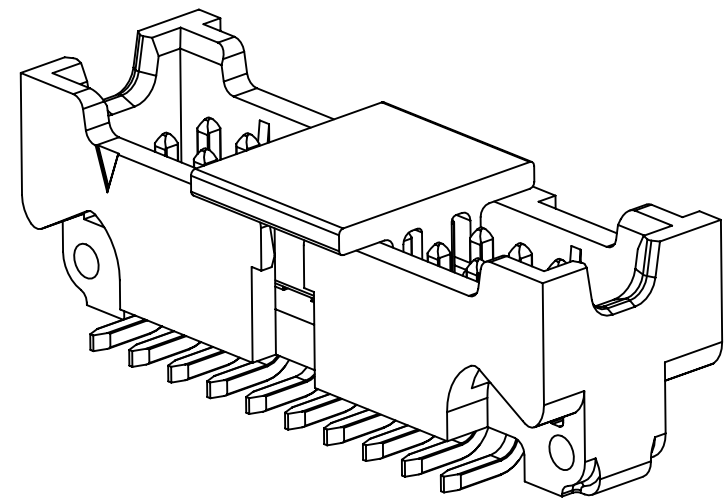
SURFACE MOUNT, VERTICAL



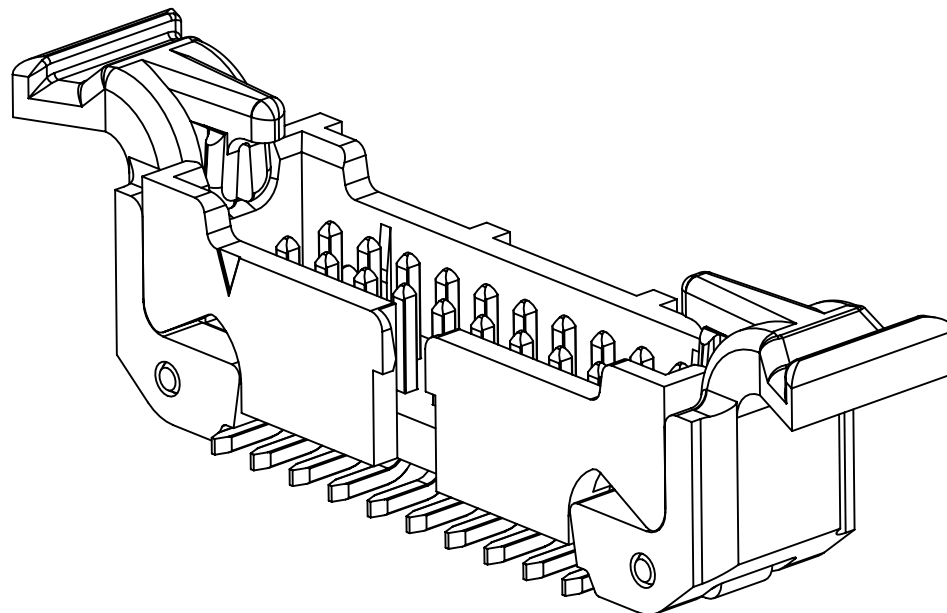
RECOMMENDED BOARD LAYOUT



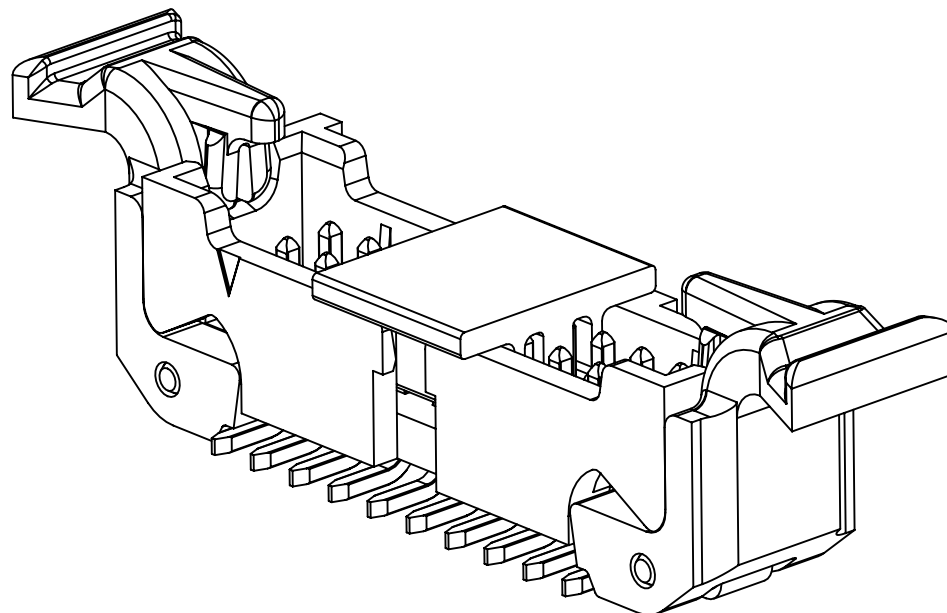
SHROUDED SMT HEADER



WITH VACUUM CAP



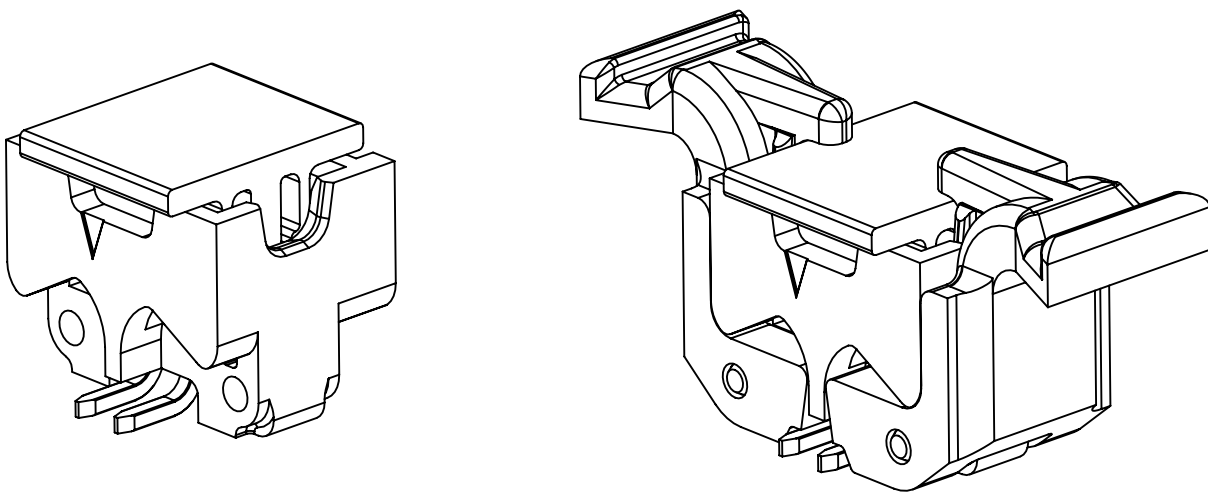
WITH LATCH/EJECT



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	ISSUE DATE AND DESCRIPTION		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
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		MILLIMETERS 0 ± .0 .00 ± .000 ± .000		ANGLES ±			
MAX. SURFACE ROUGHNESS		ALL SURFACES		CAGE NUMBER		SIZE		DRAWING NO.	
MARKED ONLY		MARKED ONLY		D78-5100-2437-1		J		REV.	
				MODEL		452		SHT 3 OF 5	

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

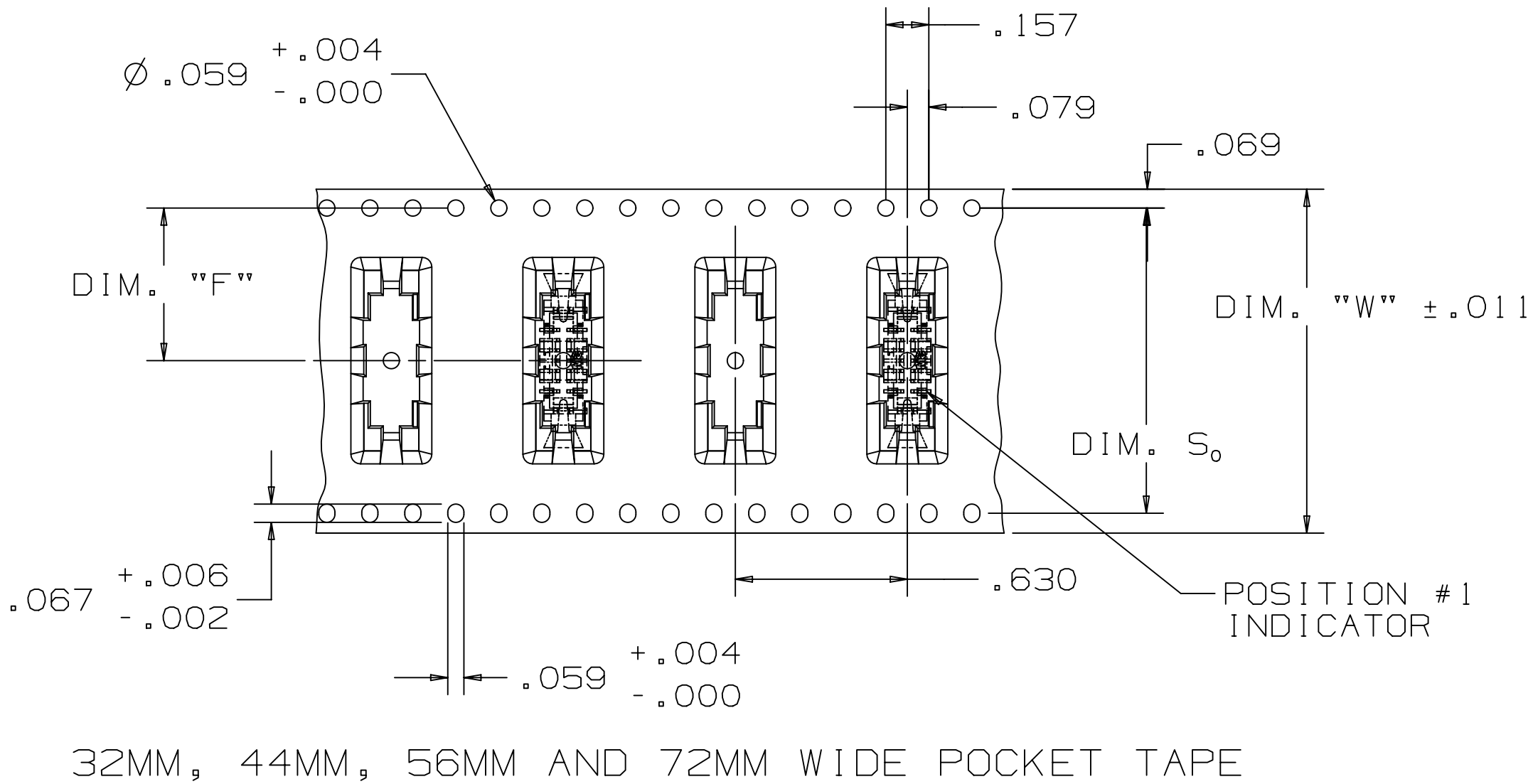
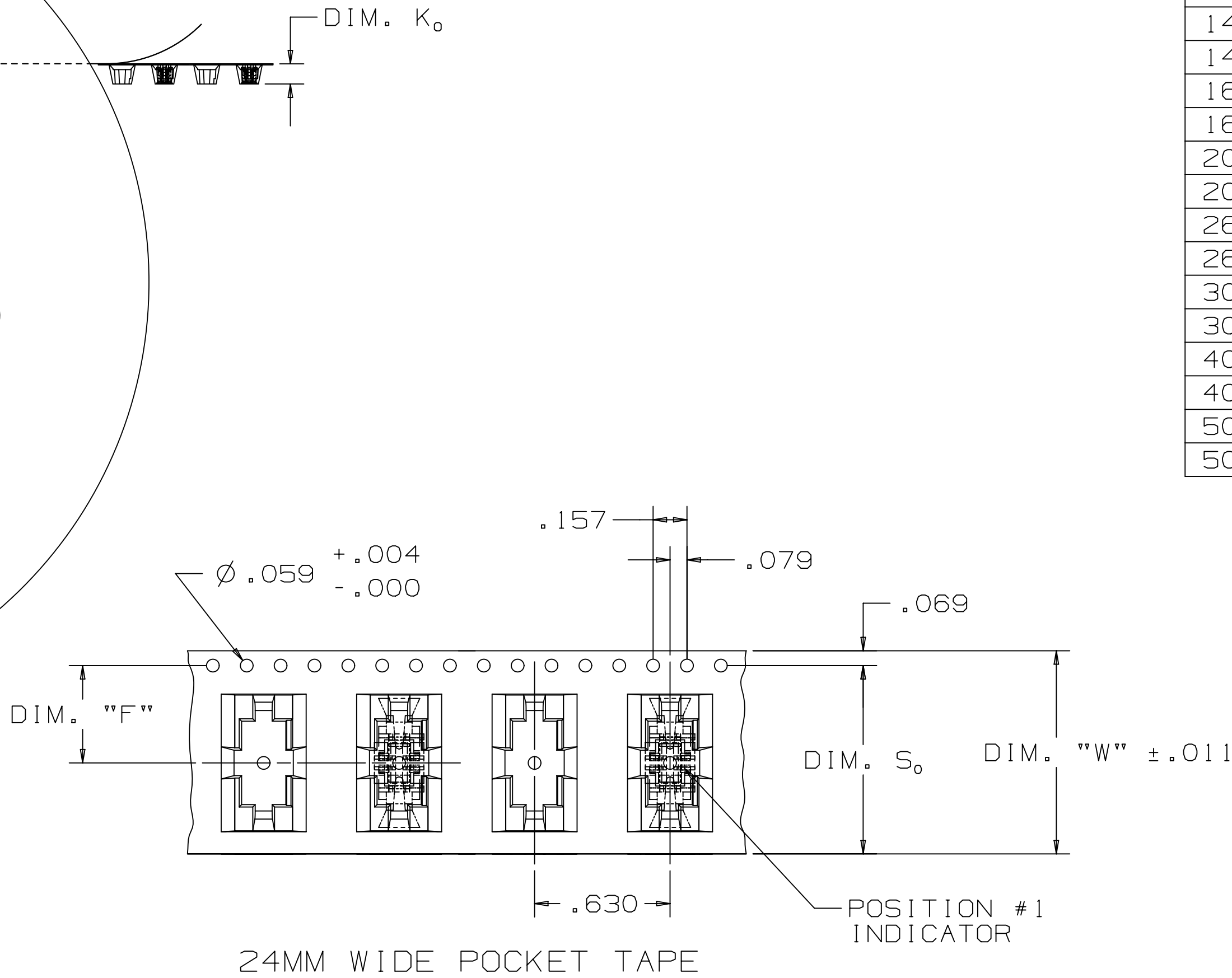
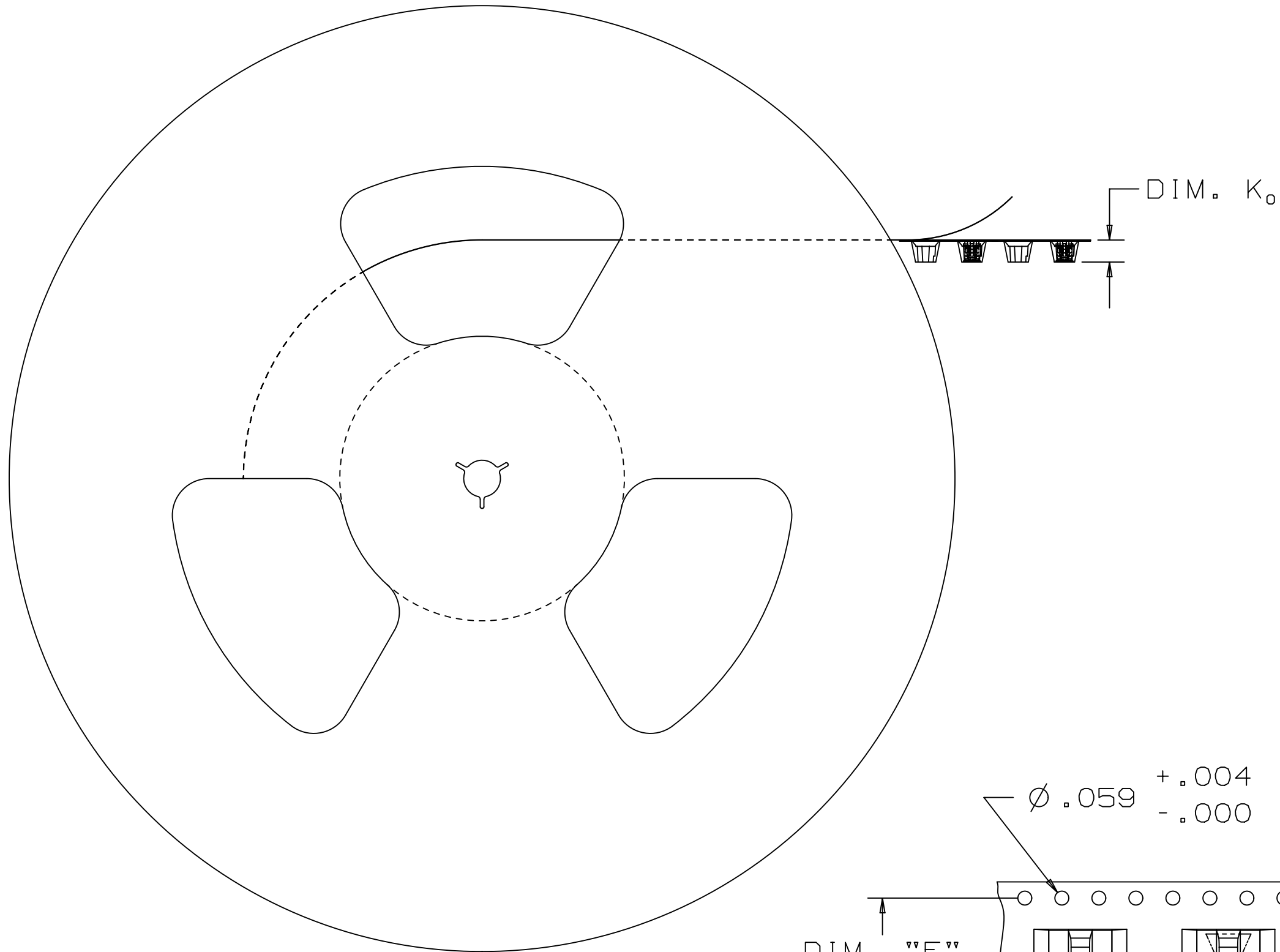
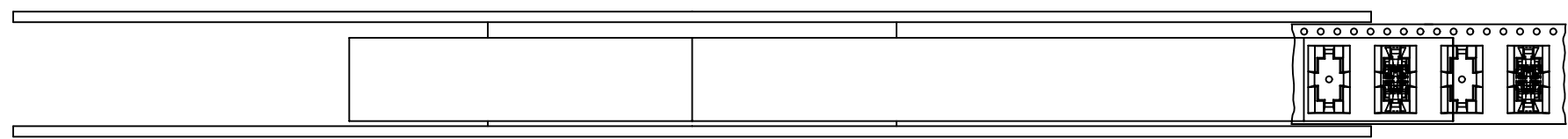


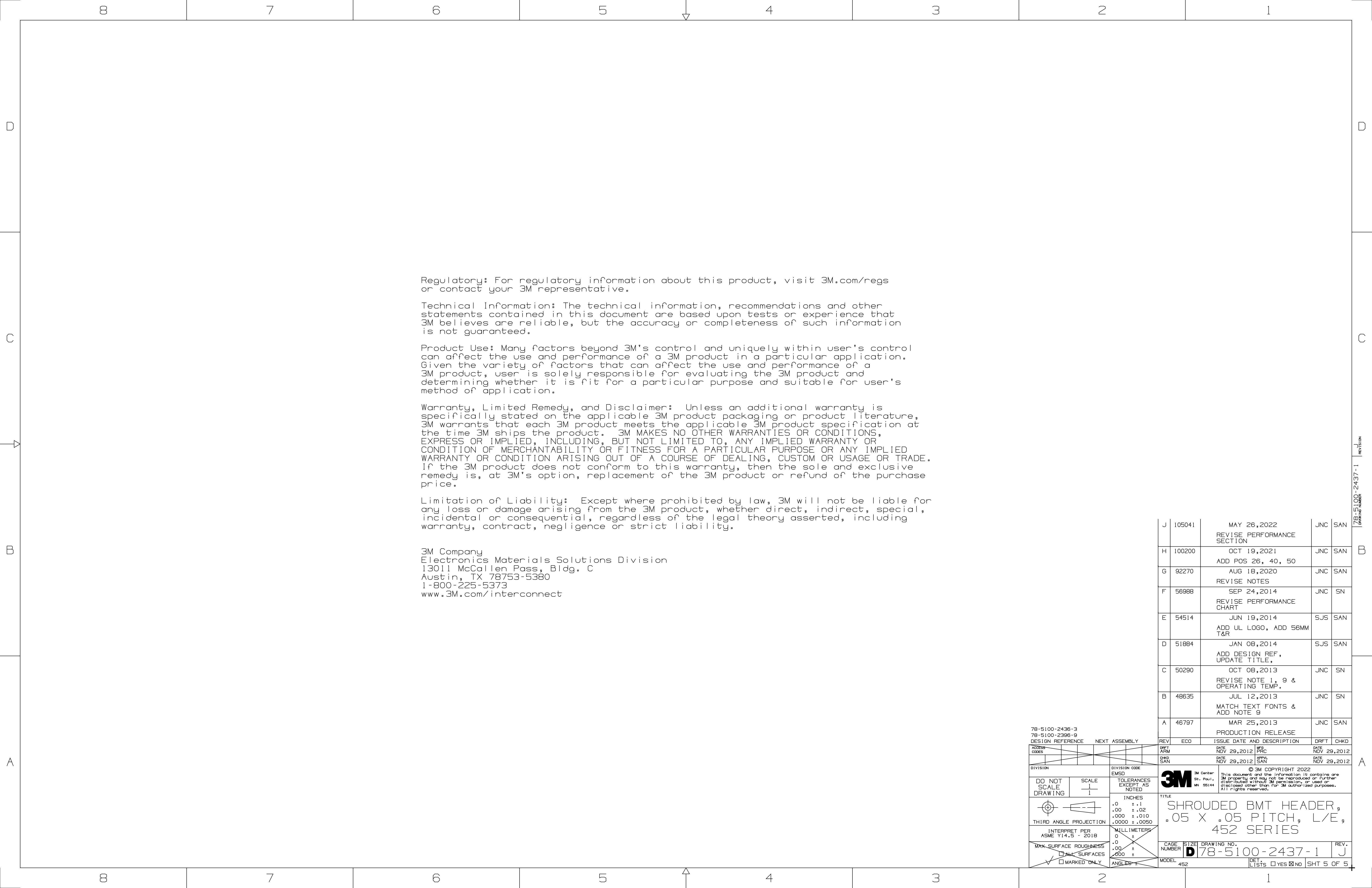
TABLE 2
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

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	DRFT	DRFT	DRFT
ARM	ARM	ARM	ARM
DIVISION		DIVISION CODE	
EMSD		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		ALL SURFACES MARKED ONLY	

J	105041	MAY 26,2022	JNC	SAN
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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
NOV 29,2012	NOV 29,2012	NOV 29,2012	NOV 29,2012	NOV 29,2012
NOV 29,2012	NOV 29,2012	NOV 29,2012	NOV 29,2012	NOV 29,2012
DIVISION		DIVISION CODE		
EMSD		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		ALL SURFACES MARKED ONLY		
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TITLE				
SHROUDED BMT HEADER, .05 X .05 PITCH, L/E, 452 SERIES				
CAGE NUMBER		DRAWING NO.		REV.
D78-5100-2437-1		J		J
MODEL		452		DET
LISTS		YES		NO
SHT		4		OF 5



Regulatory: For regulatory information about this product, visit 3M.com/regs or contact your 3M representative.

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CHKD	SAN	DATE NOV 29,2012	APPR	DATE NOV 29,2012
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452 SERIES				
CAGE NUMBER	SIZE	DRAWING NO.	REV.	
D		78-5100-2437-1	J	
MODEL	452	DET	LISTS	YES ☐ NO ☒ SHT 5 OF 5