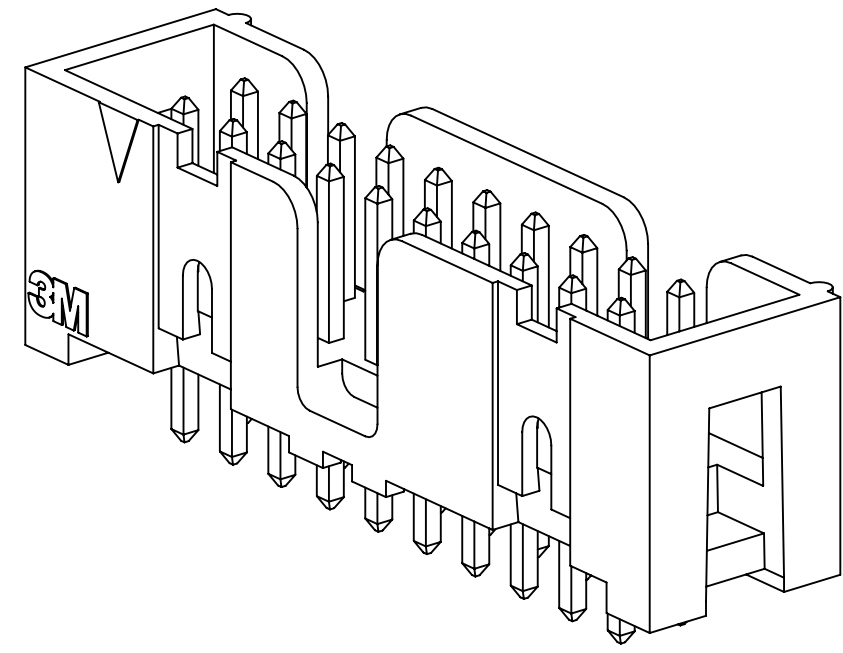
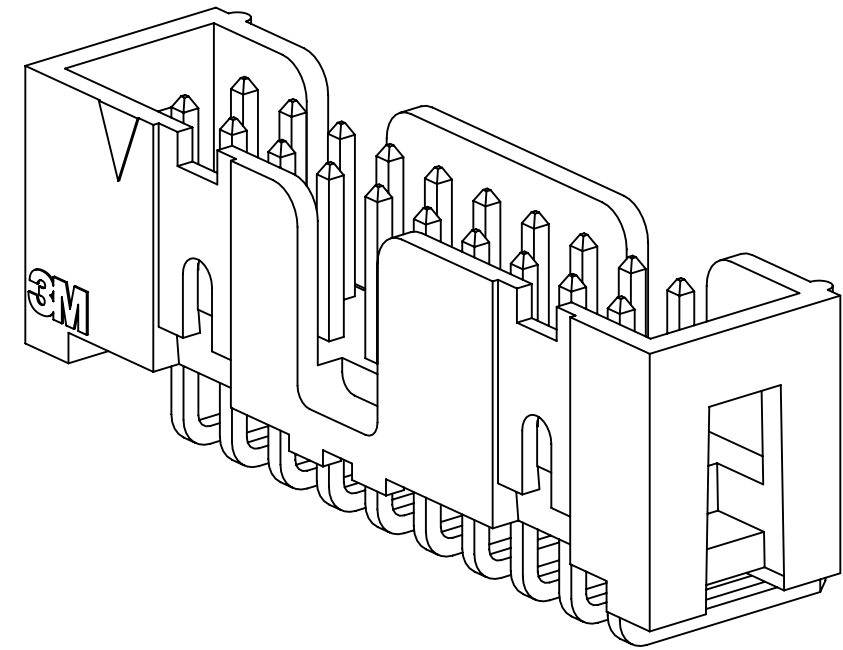


# 3M™ FOUR-WALL HEADER, 2500 SERIES

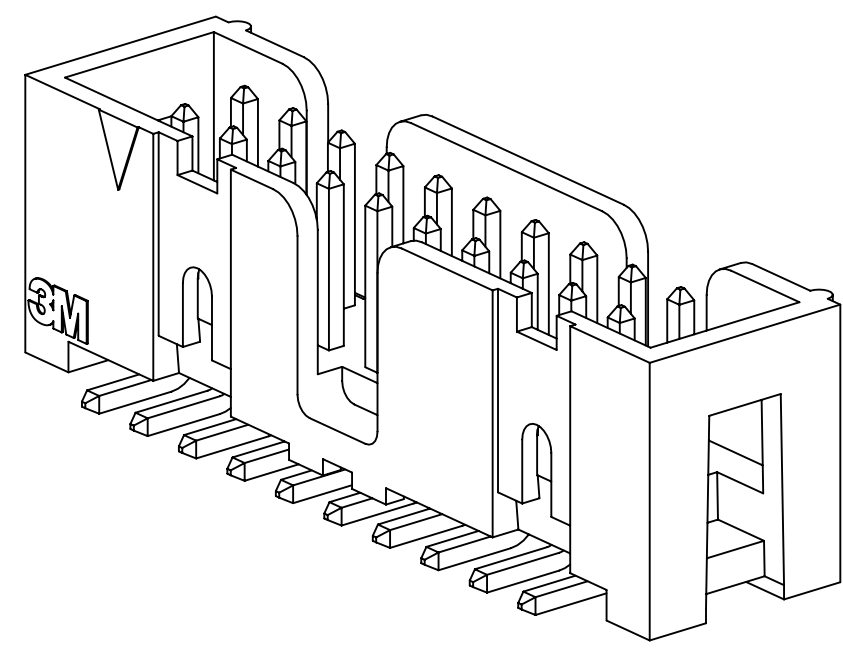
.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



25XX-60XX  
STRAIGHT VERSION



25XX-50XX  
RIGHT ANGLE VERSION



25XX-6VOC  
SURFACE MOUNT VERSION

- \* LOW PROFILE, SPACE SAVING DESIGN.
- \* CENTER SLOT POLARIZATION PREVENTS MIS-INSERTIONS AND REDUCES INSERTION TIME.
- \* DUAL SLOT POLARIZATION MEANS BROADER COMPATIBILITY WITH COMPETITIVE POLARIZATION DESIGNS (NOT AVAILABLE ON 6, 8 OR 10 POSITIONS).
- \* OPTIONAL RETAINER CLIP FOR LOCKING SOCKETS IN PLACE AND INCREASING CONNECTION RELIABILITY IN VIBRATION-PRONE ENVIRONMENTS.
- \* HIGH TEMPERATURE INSULATOR SUITABLE FOR "NO LEAD" SOLDERING OPERATIONS.
- \* THROUGH HOLE VERSION SUITABLE FOR REFLOW SOLDERING USING "PASTE IN HOLE" TECHNIQUES.
- \* EXPOSED SOLDER TAILS (ON RIGHT ANGLE VERSION) PROVIDE EASE OF CLEANING AND REDUCED REPAIR COST.
- \* STRAIGHT SURFACE MOUNT VERSION AVAILABLE.

## 2 PHYSICAL :

INSULATOR:  
 MATERIAL: GLASS FILLED POLYESTER (PCT)  
 FLAMMABILITY: UL94V-0  
 COLOR: BLACK  
 CONTACT:  
 MATERIAL: COPPER ALLOY  
 PLATING:  
 UNDER PLATING: 100µ" [2.54µm] NICKEL-OVERALL  
 WIPING AREA: AVG. GOLD (SEE ORDERING INFORMATION)  
 SOLDER TAILS: 200µ" [5.08µm] TIN LEAD OR MATTE TIN (SEE ORDERING INFORMATION)  
 MARKINGS: 3M LOGO, PART IDENTIFICATION NUMBER AND ORIENTATION TRIANGLE

## 2 ELECTRICAL :

CURRENT RATING: 5.00A, 1 CONTACT POWERED  
 3.00A, 6 CONTACTS POWERED  
 1.75A, ALL CONTACTS POWERED  
 RATING CONDITIONS: EIA-364-070 METHOD 2, 30°C MAXIMUM TEMPERATURE RISE, 20% DERATED. REFERENCE APPROPRIATE 3M PRODUCT SPECIFICATION FOR DETAILED CURRENT DERATING CURVES.  
 INSULATION RESISTANCE: >1 X 10<sup>9</sup>Ω AT 500 V<sub>DC</sub>  
 WITHSTANDING VOLTAGE: 1,000V<sub>RMS</sub> AT SEA LEVEL

## 2 ENVIRONMENTAL :

TEMPERATURE RATING: -55°C TO 105°C  
 PROCESS RATING: 260°C, PER J-STD-020C, SINGLE PASS  
 MOISTURE SENSITIVITY LEVEL: 1 (PER J-STD-020C)

- NOTES
- REGULATORY INFORMATION: ROHS COMPLIANT. SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "ROHS COMPLIANCE" SECTION OF WWW.3MCONNECTORS.COM FOR COMPLIANCE INFORMATION.
  - IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
  - NOTCHES A & C WILL ACCOMMODATE 3M POLARIZING KEY: N3518.
  - CONTACT TAILS .0245 [ .622 ] WIRE WITH .0075 [ .191 ] CORNER RADIUS AND .028 [ .072 ] DIAGONAL.
  - SOLDER STANDOFFS FACILITATE .01 [ .3 ] CLEARANCE ABOVE BOARD FOR REFLOW SOLDERING.

3M ELECTRONIC MATERIALS SOLUTIONS DIVISION  
 INTERCONNECT SOLUTIONS  
<http://www.3mconnectors.com>

3M IS A TRADEMARK OF 3M COMPANY.  
 FOR TECHNICAL, SALES OR ORDERING  
 INFORMATION CALL 800-225-5373

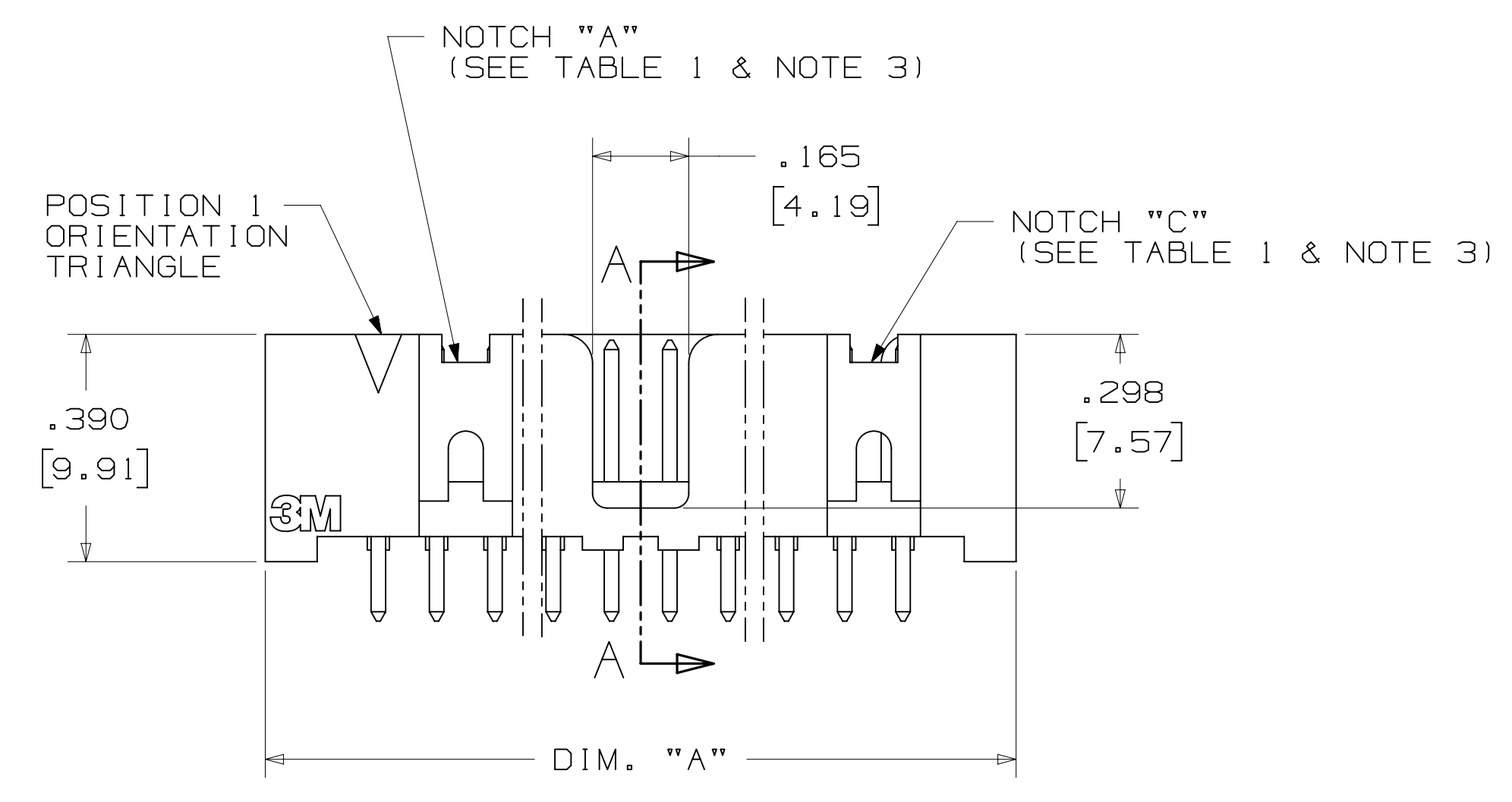
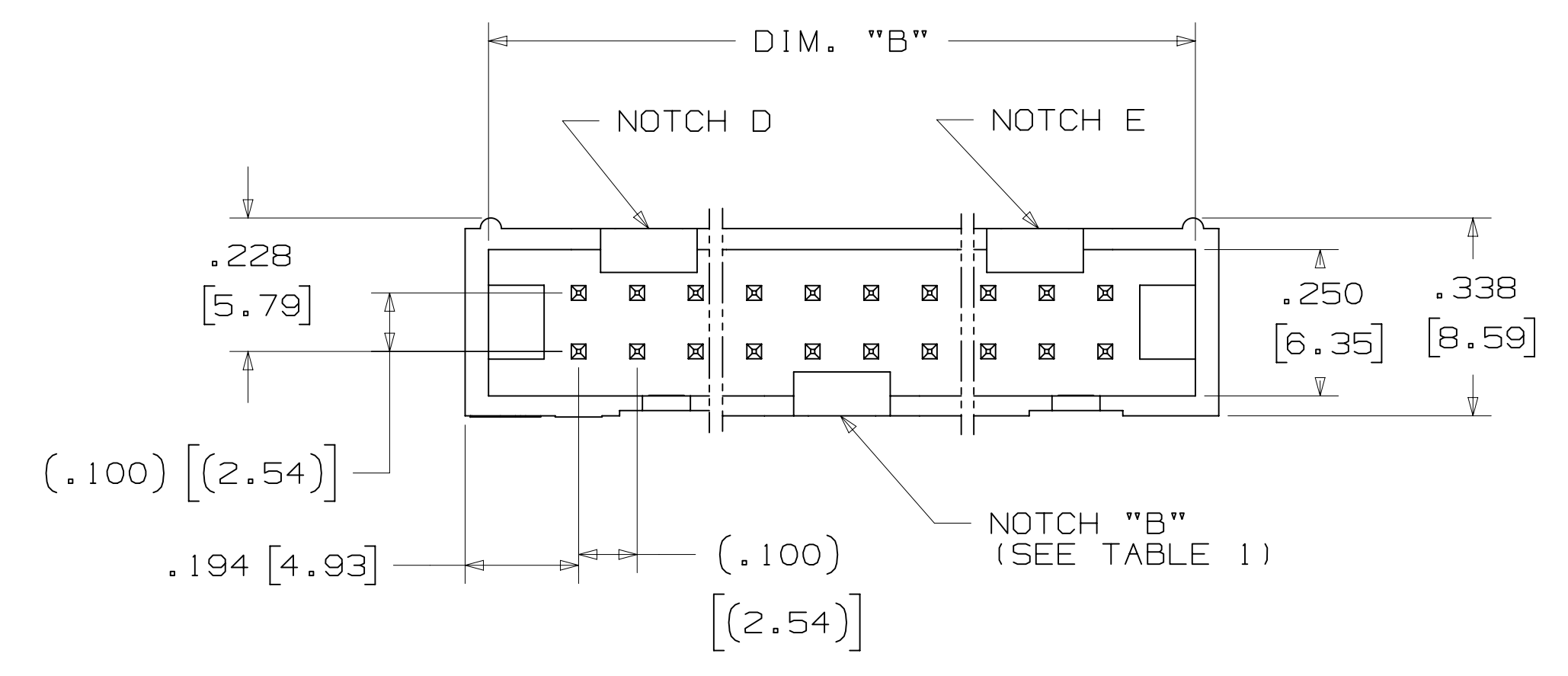
**3M**  
 UL FILE NO: E68080

DIMENSIONS: INCHES [ MM ]  
 [ MM ] IS REF. ONLY

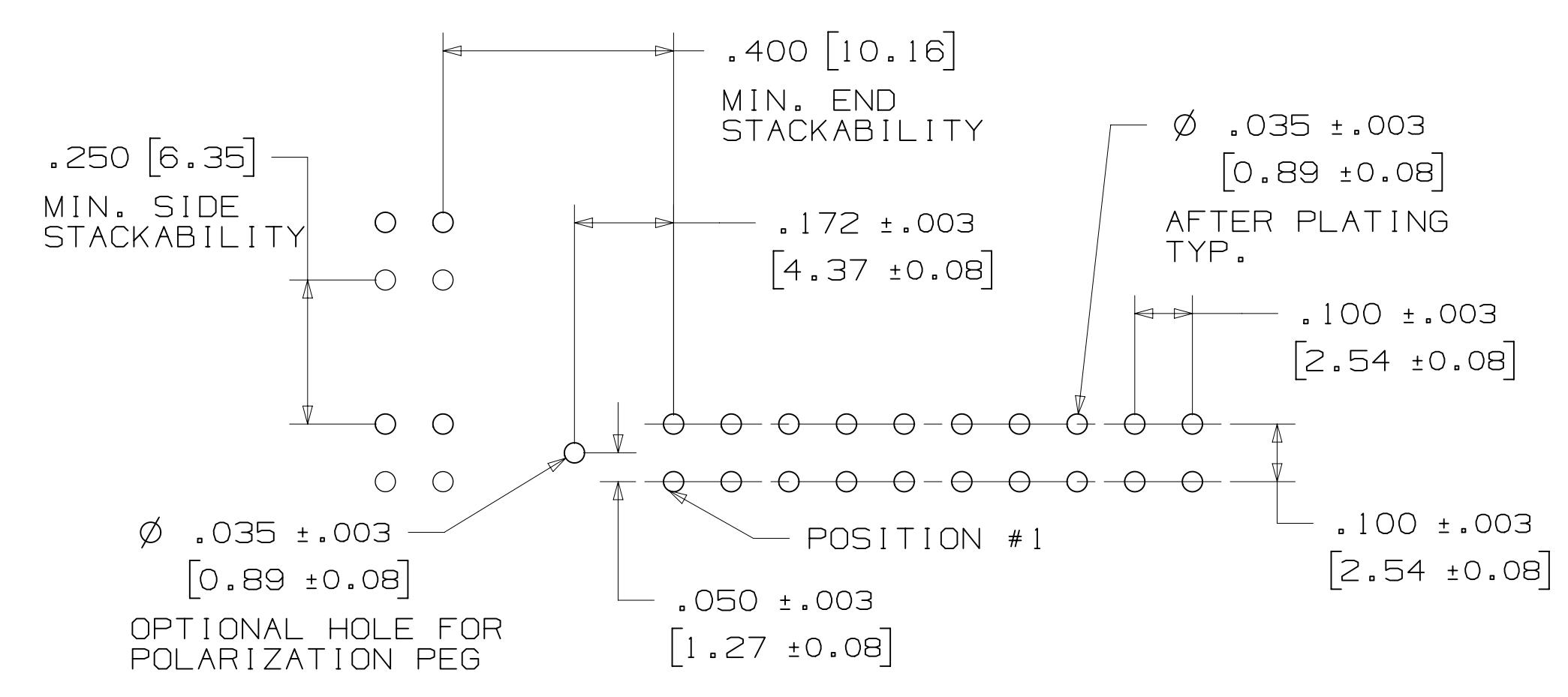
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 02, 2016	JNC	SC
				REVISE DIM ON SHT2 & CLIP CHART ON SHT5		
				AUG 11, 2014	JNC	RS
				REVISED AND REDRAWN		
DESIGN CODES		CHKD	DATE	APPR	DATE	
		CASTIGLIONE	AUG 11, 2014	R. SCHERER	SEP 05, 2014	
DIVISION	DIVISION CODE	© 3M COPYRIGHT 2016				
Interconnect Solutions	EMSD	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 4/1	TOLERANCES EXCEPT AS NOTED				
		INCHES	TITLE HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA			
		.00 ± .01 .000 ± .005 .0000 ±	CAGE NUMBER D 78-5100-0770-7 N			
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	MILLIMETERS 0 ± .0 ± .3 .00 ± .13 .000 ±	REV. NUMBER 2500 SERIES			
		MAX SURFACE ROUGHNESS R <sub>a</sub> SURFACES MARKED ONLY	MODEL 2500 SERIES			
		ANGLES	SHEET 1 OF 5			

78-5100-0770-7  
 N  
 REVISION  
 11:10 AM UTC-05:00  
 8/5/2016

3M™ FOUR-WALL HEADER, 2500 SERIES  
 .100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	06
08	.688 [17.48]	.608 [15.44]	B	08
10	.788 [20.02]	.708 [17.98]	BC	10
14	.988 [25.10]	.908 [23.06]	BCDE	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	64



ORDERING INFORMATION  
 STRAIGHT VERSION

X25XX-60XX-XX

N= HIGH TEMP BLACK (PCT)  
 (RB, UB OR UG PLATING REQ'D)  
 BLANK= (UB OR UG PLATING)

PIN QUANTITY:  
 (SEE TABLE 1)

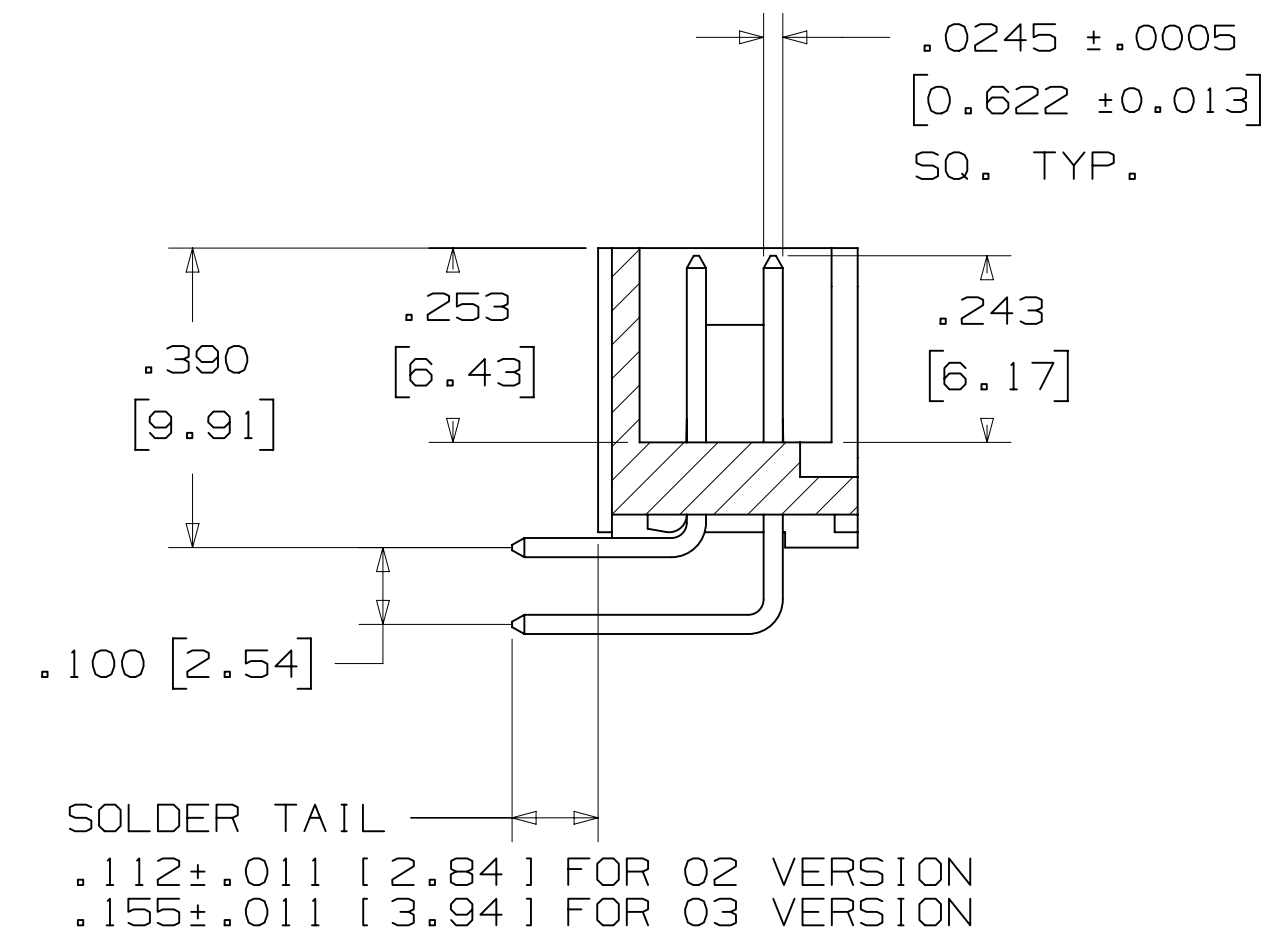
SOLDER TAIL:  
 02 = FOR .062 [1.57] THICK BOARD  
 03 = FOR .094 TO .125 [2.39 TO 3.18]  
 THICK BOARD

PLATING:  
 RB = 30µ" [0.76µm] AVG. GOLD  
 200µ" [5.08µm] MATTE TIN (RIA, E1 & C1 APPLY)  
 UG = 15µ" [0.38µm] AVG. GOLD  
 200µ" [5.08µm] 60:40 TIN-LEAD SOLDER TAILS  
 (RIA E3 & C2 APPLY)  
 UB = 30µ" [0.76µm] AVG. GOLD  
 200µ" [5.08µm] 60:40 TIN LEAD SOLDER TAILS  
 (RIA E3 & C2 APPLY)

RECOMMENDED HOLE PATTERN  
 SHOWN FROM COMPONENT SIDE

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 11, 2014		
DIVISION		DIVISION CODE		DATE		
Interconnect Solutions		EMSD		AUG 11, 2014		
DO NOT SCALE DRAWING	SCALE 4-1	TOLERANCES EXCEPT AS NOTED		DATE		
THIRD ANGLE PROJECTION		INCHES		DATE		
INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS		DATE		
MAX SURFACE ROUGHNESS		ANGLES		DATE		
SURFACES				DATE		
MARKED ONLY				DATE		
CAGE NUMBER				DRAWING NO.		REV.
D78-5100-0770-7				2500 SERIES		N
MODEL				SHT 2 OF 5		

**3M™ FOUR-WALL HEADER, 2500 SERIES**  
 .100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



SECTION B-B

TABLE 1				
PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	06
08	.688 [17.48]	.608 [15.44]	B	08
10	.788 [20.02]	.708 [17.98]	BC	10
14	.988 [25.10]	.908 [23.06]	BCDE	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	64

**ORDERING INFORMATION  
 RIGHT ANGLE VERSION**

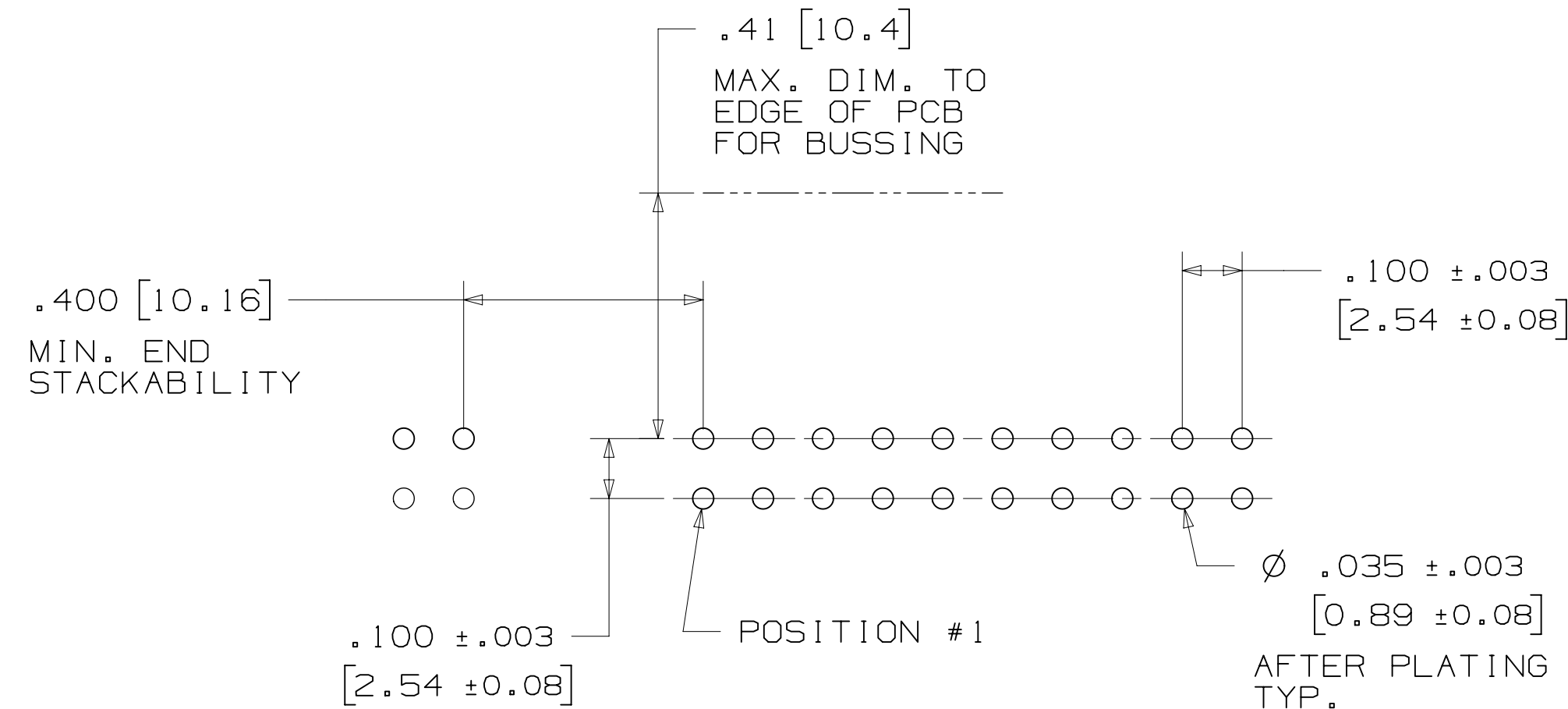
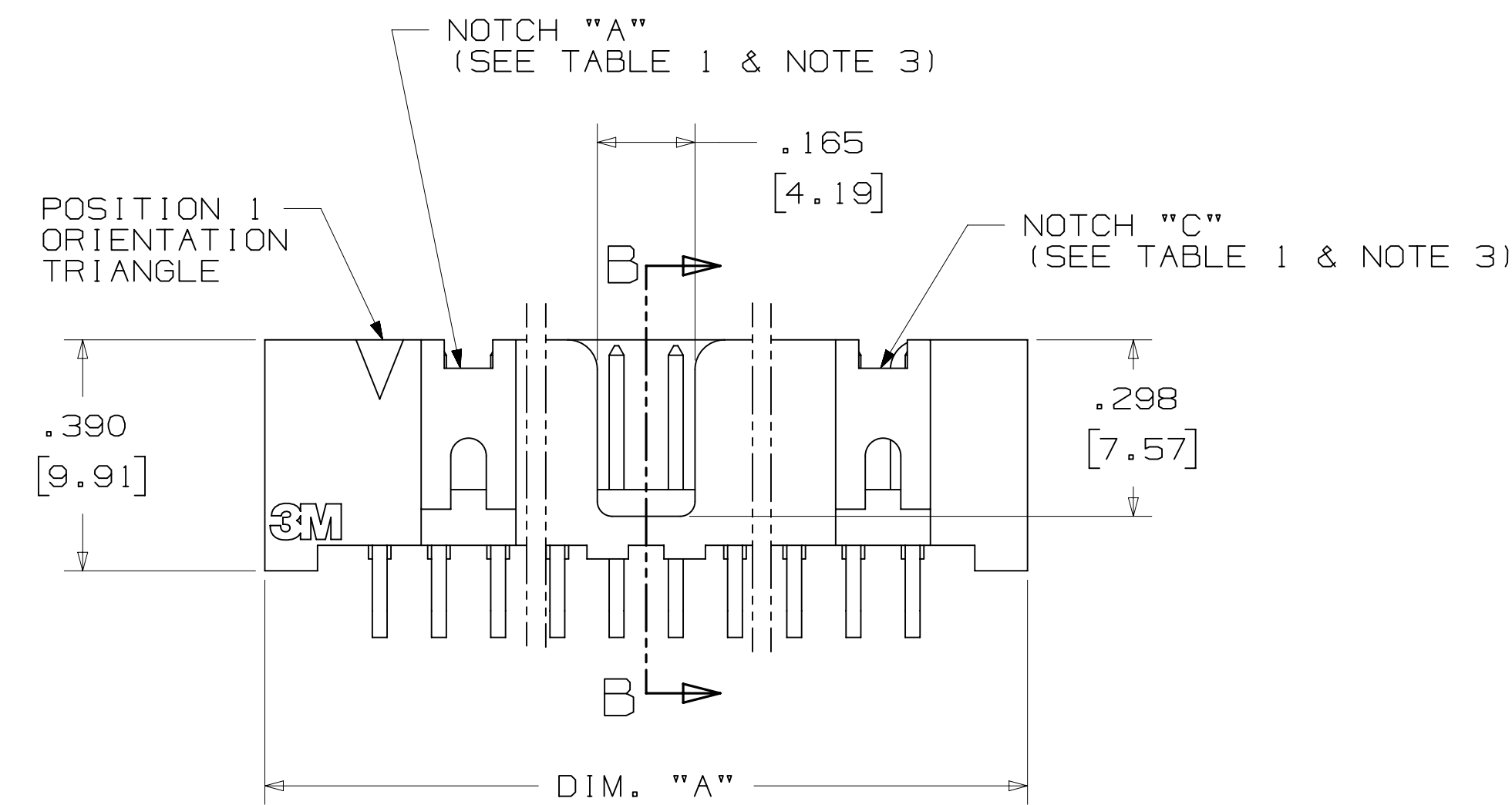
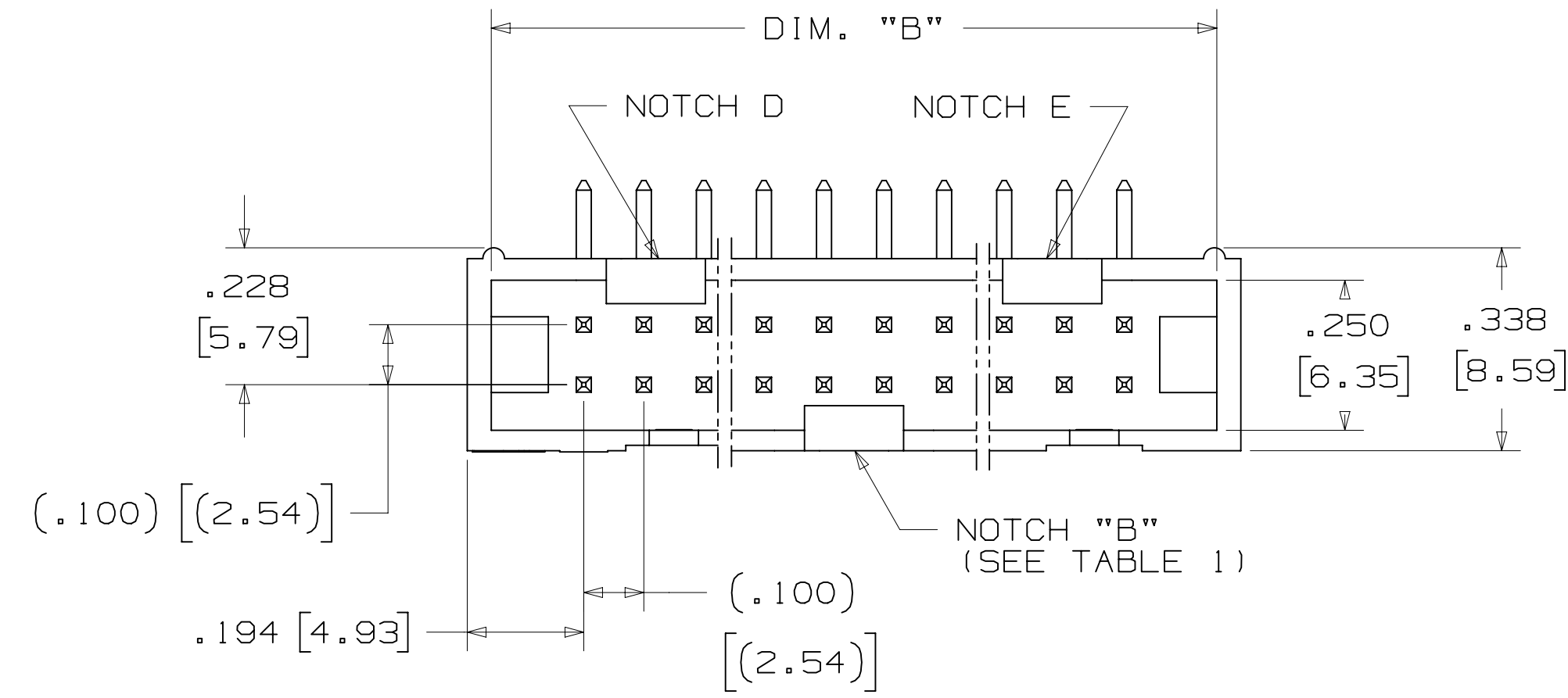
X25XX-50XX-XX

N= HIGH TEMP BLACK (PCT)  
 (RB, UB OR UG PLATING REQ'D)  
 BLANK= (UB OR UG PLATING)

PIN QUANTITY:  
 (SEE TABLE 1)

SOLDER TAIL:  
 02 = FOR .062 [1.57] THICK BOARD  
 03 = FOR .094 TO .125 [2.39 TO 3.18]  
 THICK BOARD

PLATING:  
 RB = 30μ" [0.76μm] AVG. GOLD  
 200μ" [5.08μm] MATTE TIN (RIA, E1 & C1 APPLY)  
 UG = 15μ" [0.38μm] AVG. GOLD  
 200μ" [5.08μm] 60:40 TIN-LEAD SOLDER TAILS  
 (RIA E3 & C2 APPLY)  
 UB = 30μ" [0.76μm] AVG. GOLD  
 200μ" [5.08μm] 60:40 TIN LEAD SOLDER TAILS  
 (RIA E3 & C2 APPLY)



RECOMMENDED HOLE PATTERN  
 SHOWN FROM COMPONENT SIDE

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
Interconnect Solutions	EMSD	C	M	AUG 11, 2014		
DO NOT SCALE DRAWING	SCALE 4-1	TOLERANCES EXCEPT AS NOTED	INCHES .00 ±.01 .000 ±.005 .0000 ±.0000 MILLIMETERS 0 ±.3 .00 ±.13 .000 ±.000			
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	TITLE: HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA CAGE NUMBER: D78-5100-0770-7 MODEL: 2500 SERIES				
MAX SURFACE ROUGHNESS	MARKED ONLY	REV. N DATE: AUG 02, 2016 REVISION: REVISE DIM ON SHT2 & CLIP CHART ON SHT5 DATE: AUG 11, 2014 DATE: SEP 05, 2014 SHT 3 OF 5				

78-5100-0770-7

Imaged: N.1 8/5/2016 11:10 AM UTC-05:00

# 3M™ FOUR-WALL HEADER, 2500 SERIES

.100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE



SECTION C - C

TABLE 1					
PIN QTY.	DIM. "A"	DIM. "B"	POLARIZING NOTCHES	TAPE AND REEL PKG CODE	PIN QTY.
06	.588 [14.94]	.508 [12.90]	B	WD (44 MM)	06
08	.688 [17.48]	.608 [15.44]	B	WD (44 MM)	08
10	.788 [20.02]	.708 [17.98]	BC	WD (44 MM)	10
14	.988 [25.10]	.908 [23.06]	BCDE	WD (44 MM)	14
16	1.088 [27.64]	1.008 [25.60]	ABCDE	WD (44 MM)	16
20	1.288 [32.72]	1.208 [30.68]	ABCDE	WE (56 MM)	20
24	1.488 [37.80]	1.408 [35.76]	ABCDE	WE (56 MM)	24
26	1.588 [40.34]	1.508 [38.30]	ABCDE	WE (56 MM)	26
30	1.788 [45.42]	1.708 [43.38]	ABCDE	WF (72 MM)	30
34	1.988 [50.50]	1.908 [48.46]	ABCDE	WF (72 MM)	34
36	2.088 [53.04]	2.008 [51.00]	ABCDE	WG (88 MM)	36
40	2.288 [58.12]	2.208 [56.08]	ABCDE	WG (88 MM)	40
50	2.788 [70.82]	2.708 [68.78]	ABCDE	WG (88 MM)	50
60	3.288 [83.52]	3.208 [81.48]	ABCDE	WH (120 MM)	60
64	3.488 [88.60]	3.408 [86.56]	ABCDE	WH (120 MM)	64



RECOMMENDED PAD LAYOUT

## ORDERING INFORMATION SURFACE MOUNT VERSION

N25XX-6VOC-XX-XX

N = HIGH TEMP BLACK (PCT) (RB PLATING REQ'D)

PIN QUANTITY: (SEE TABLE 1)

PACKAGING OPTIONS: WX = TAPE & REEL PACKAGING (SEE TABLE 1)

PLATING: RB = 30µ" [0.76µm] AVG. GOLD 200µ" [5.08µm] MATTE TIN (RIA, E1 & C1 APPLY)

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 11, 2014		
DIVISION: Interconnect Solutions		DIVISION CODE: EMSD		DATE: AUG 11, 2014		
DO NOT SCALE DRAWING		SCALE: 4/1		TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		INCHES: .00 ±.01, .000 ±.005, .0000 ±		MILLIMETERS: 0 ±, .0 ±.3, .00 ±.13, .000 ±		
MAX SURFACE ROUGHNESS: SURFACES		MARKED ONLY		CAGE NUMBER: D78-5100-0770-7		
				MODEL: 2500 SERIES		
				REV. N		

N	68908	AUG 02, 2016	JNC	SC
M	56068	AUG 11, 2014	JNC	RS

© 3M COPYRIGHT 2016  
 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.

3M Center St. Paul, MN 55144

HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA

REV. N

SHT 4 OF 5

DRAWING NUMBER: 78-5100-0770-7

REVISION: N

DATE: AUG 11, 2014

DRAWN BY: R. SCHERER

CHECKED BY: R. SCHERER

DATE: SEP 05, 2014

CAGE NUMBER: D78-5100-0770-7

MODEL: 2500 SERIES

REV. N

SHT 4 OF 5

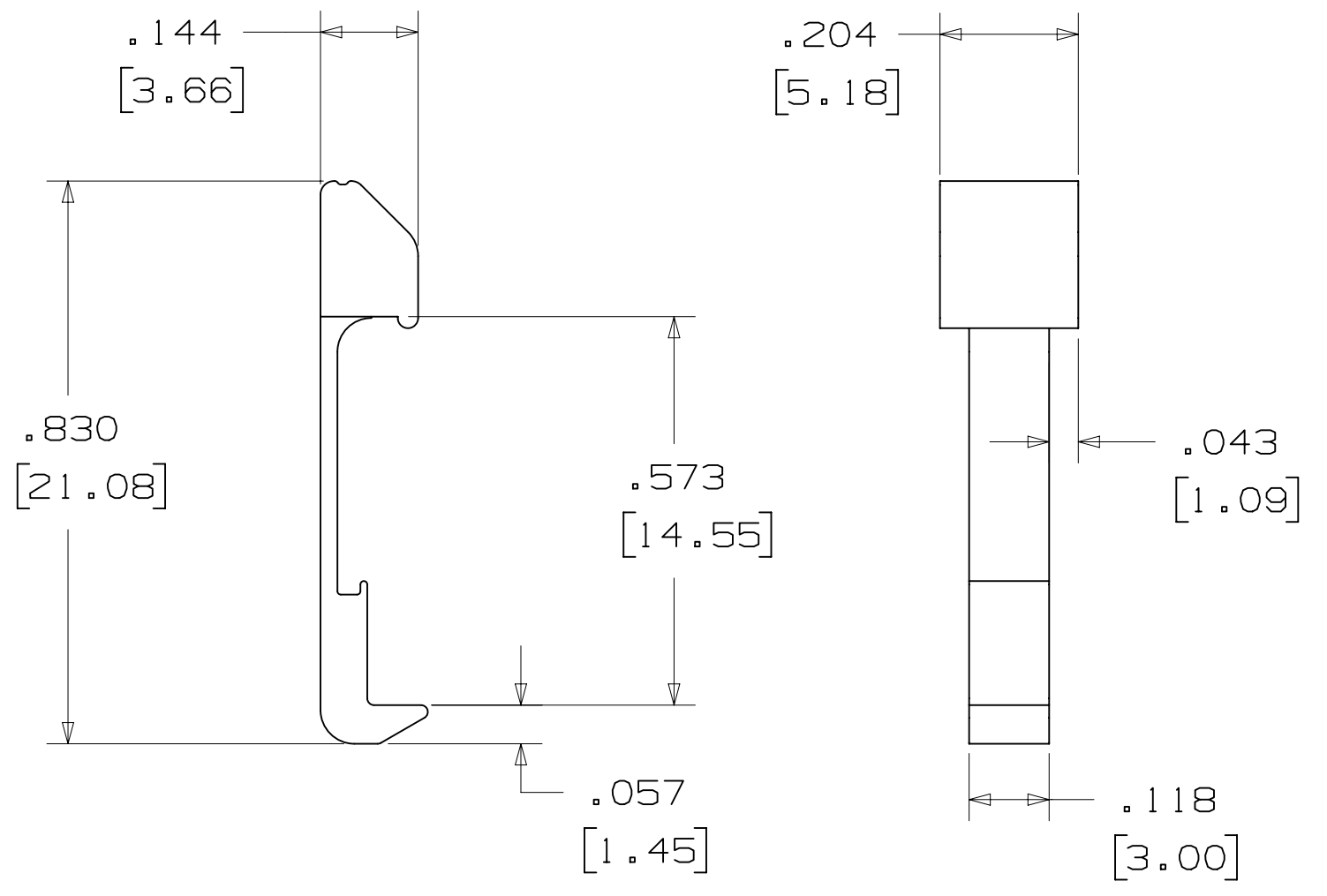
3M™ FOUR-WALL HEADER, 2500 SERIES  
 .100" X .100" LOW PROFILE, SURFACE MOUNT, STRAIGHT AND RIGHT ANGLE THROUGH-HOLE

PART CUSTOMIZATION

THIS SPEC SHEET DETAILS OUR STANDARD OFFERING.  
 3M HAS SEVERAL CAPABILITIES THAT CAN PROVIDE A PART TAILORED TO YOUR SPECIFIC NEEDS. ASK YOUR 3M SALES REPRESENTATIVE OR CUSTOMER SERVICE FOR MORE DETAILS.

- \* SELECTIVE PIN REMOVAL (FOR BOARD ASSEMBLY POLARIZATION).
- \* DIFFERENT PIN LENGTHS.

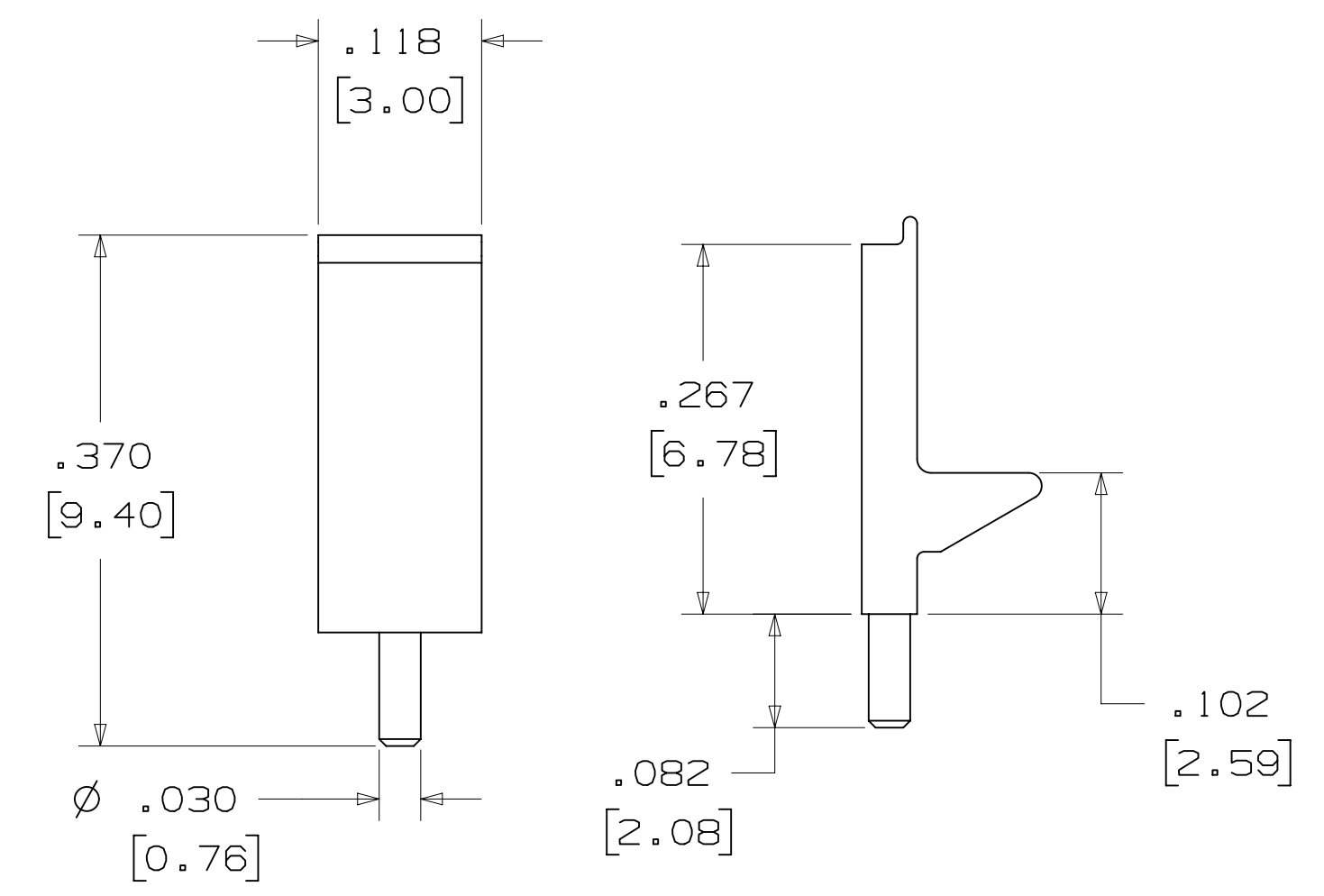
LOW PROFILE LATCH



PART NO.	MATERIAL	COLOR
3505-33B	NYLON	BLACK

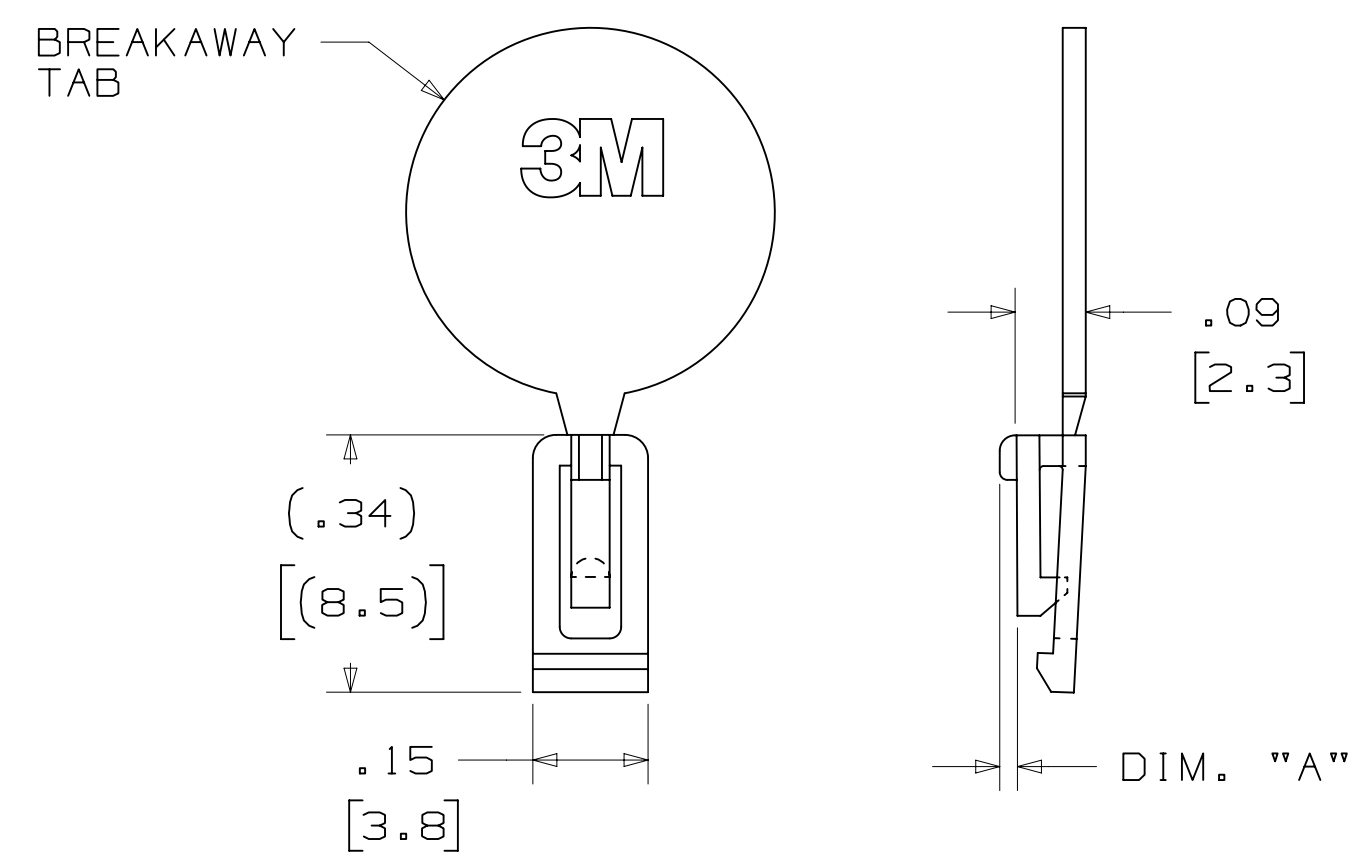
NOTE:  
 LATCHES NOT COMPATIBLE WITH REFLOW SOLDERING.  
 ATTACH LATCHES AFTER SOLDERING.

POLARIZING POST



PART NO.	MATERIAL	COLOR
3201-3	PCT	BLACK

POLARIZING KEY



3M PART NO.	MATERIAL	COLOR	DIM. "A"
N3518	LCP	BLACK	.02

NOTE:  
 #2216 B/A SCOTCHWELD CAN BE USED TO ADHERE KEYS.

SHORT/LONG SOCKET RETAINER CLIP



PIN QTY.	DIM. "A"
06	N/A
08	N/A
10	.81 [20.6]
14	1.02 [25.9]
16	1.12 [28.4]
20	1.32 [33.5]
24	1.52 [38.7]
26	1.63 [41.4]
30	1.83 [46.4]
34	2.03 [51.6]
36	N/A
40	2.33 [59.2]
50	2.83 [71.9]
60	3.33 [84.6]
64	3.53 [89.7]

NOTE:  
 STAINLESS STEEL WITH GRAY POLYURETHANE COATING.

3505-8XXX

CLIP HEIGHT CODE \_\_\_\_\_ PIN COUNT (SEE TABLE)  
 0 = .31 [7.9] FOR SOCKETS WITHOUT STRAIN RELIEF  
 1 = .53 [13.5] FOR SOCKETS WITH STRAIN RELIEF

NOTE:  
 1) THE FOLLOWING RETAINER CLIPS HAVE BEEN DISCONTINUED:  
 3505-8064  
 3505-8124  
 3505-8150

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				AUG 02, 2016	JNC	SC
				REVISE DIM ON SHT2 & CLIP CHART ON SHT5		
				AUG 11, 2014	JNC	RS
				REVISU AND REDRAWN		
				AUG 11, 2014		
				R. SCHERER		SEP 05, 2014
DIVISION: Interconnect Solutions SCALE: 4/1 DO NOT SCALE DRAWING		DIVISION CODE: EMSD TOLERANCES EXCEPT AS NOTED INCHES: .00 ± .01, .000 ± .005, .0000 ± MILLIMETERS: 0 ± .3, .00 ± .13		3M Center St. Paul, MN 55144 © 3M COPYRIGHT 2016 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 - 2009 MAX SURFACE ROUGHNESS: SURFACES MARKED ONLY		TITLE: HEADER, 4-WALL, LO-PRO, .100 X .100, SMT, STRAIGHT & RA		CAGE NUMBER: D78-5100-0770-7 MODEL: 2500 SERIES REV. N		

78-5100-0770-7  
 N  
 REVISION  
 11:10 AM UTC-05:00  
 8/5/2016