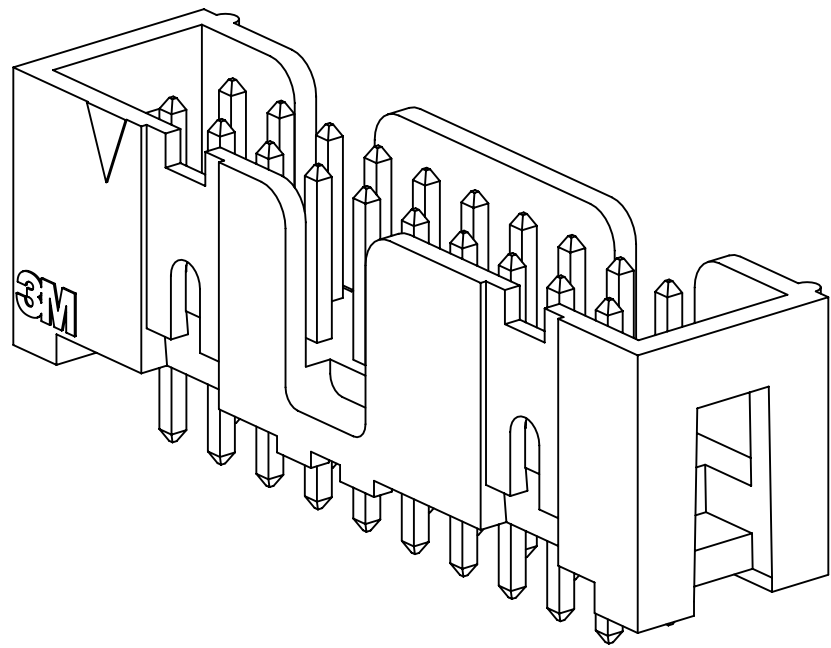


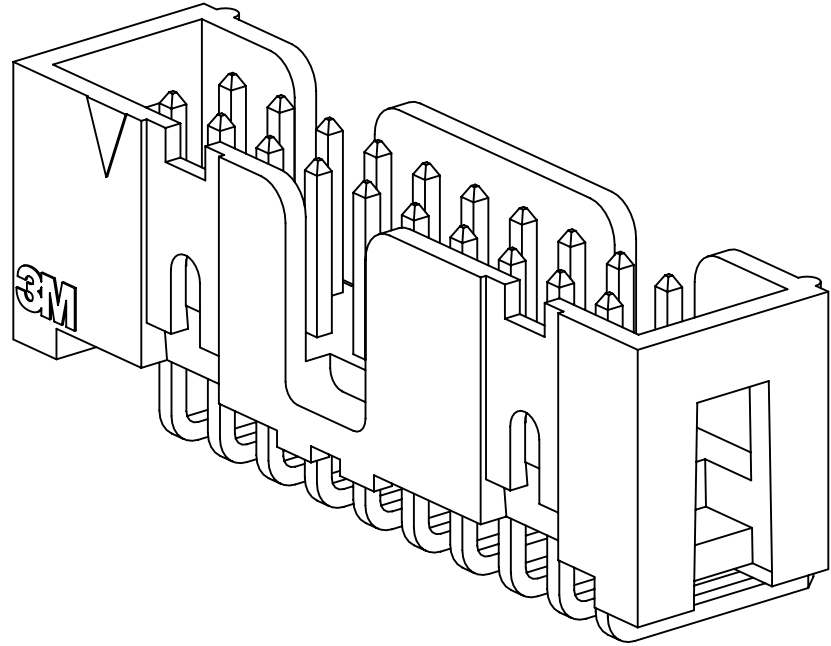
3M™ FOUR-WALL HEADER, 2500 SERIES

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



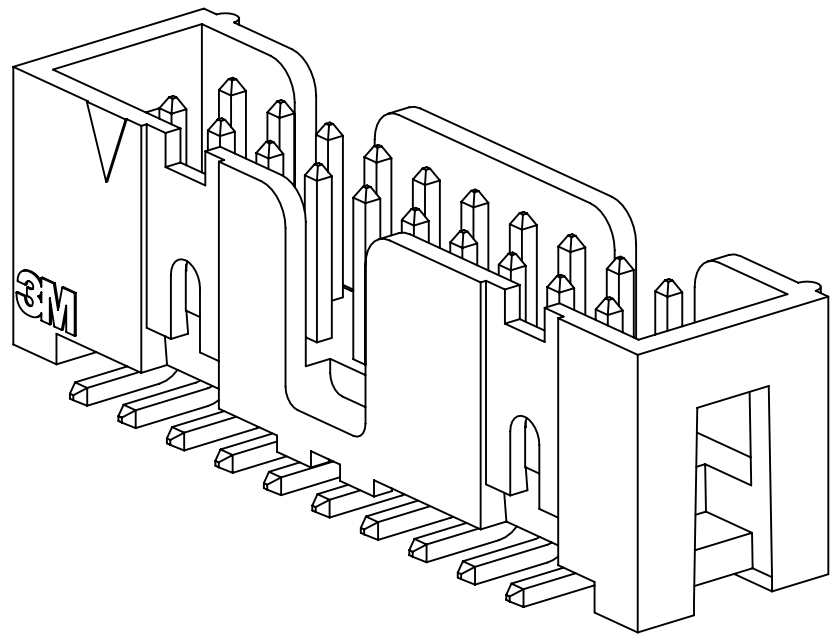
25XX-60XX

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 10⁹Ω AT 500 V_{DC}
WITHSTANDING VOLTAGE : 1,000V_{RMS} 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

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

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

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

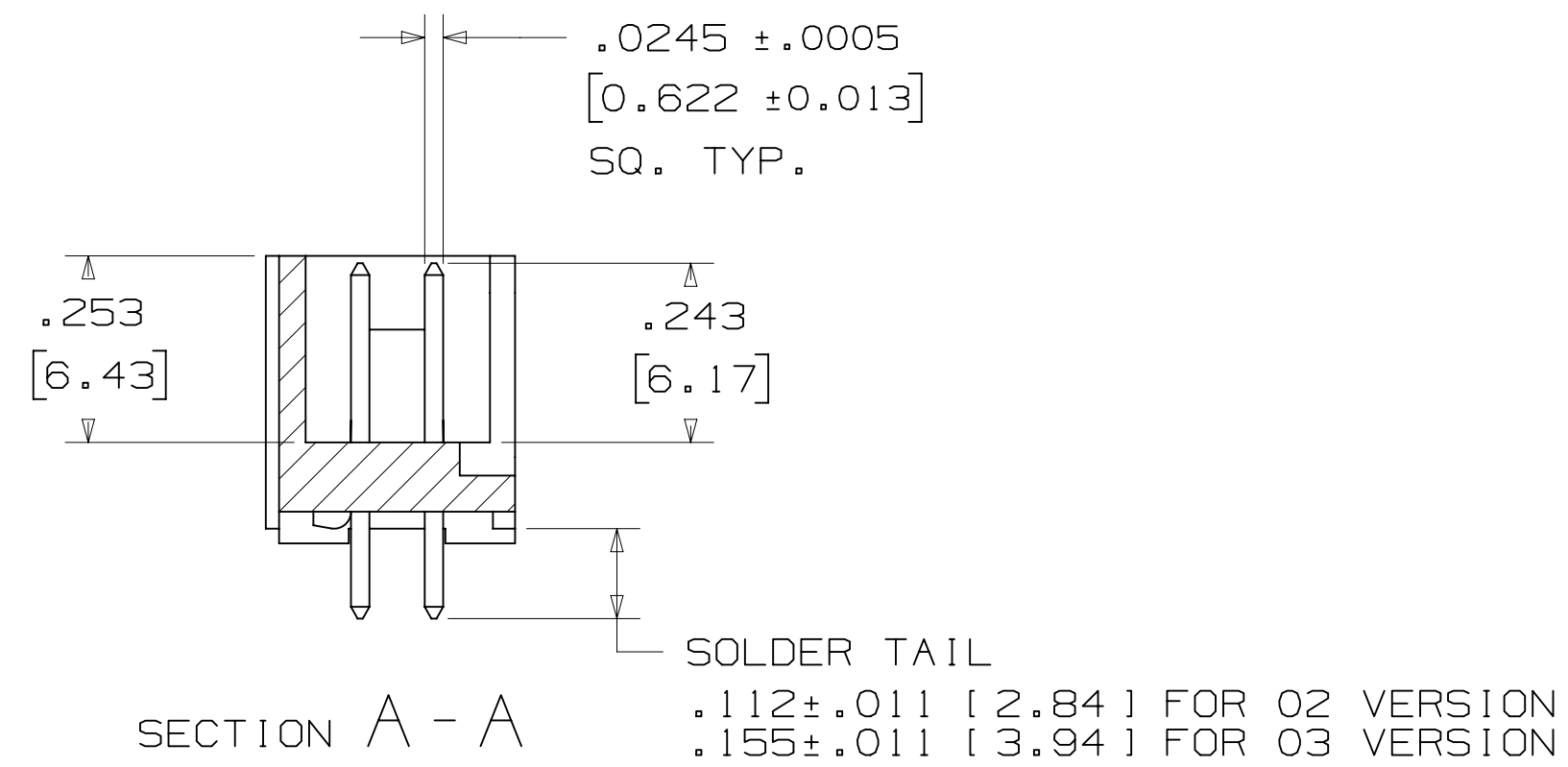
3M IS A TRADEMARK OF 3M COMPANY.
FOR TECHNICAL, SALES OR ORDERING
INFORMATION CALL 800-225-5373

UL **US**
UL FILE NO: E68080

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
XREF CODES		CATTIGLIONE		AUG 11, 2014	MFG	DATE			
		CHKD			R. SCHERER	DATE		SEP 05, 2014	
DIVISION		DIVISION CODE		© 3M COPYRIGHT 2015					
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					
				.0		± .01			
				.00		± .005			
				.000		± .0000			
				.0000					
THIRD ANGLE PROJECTION				MILLIMETERS					
INTERPRET PER ASME Y14.5 - 2009				0		± .3			
				.0		± .13			
				.00		± .000			
				.000					
MAX SURFACE ROUGHNESS				ANGLES					
SURFACES									
MARKED ONLY									

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

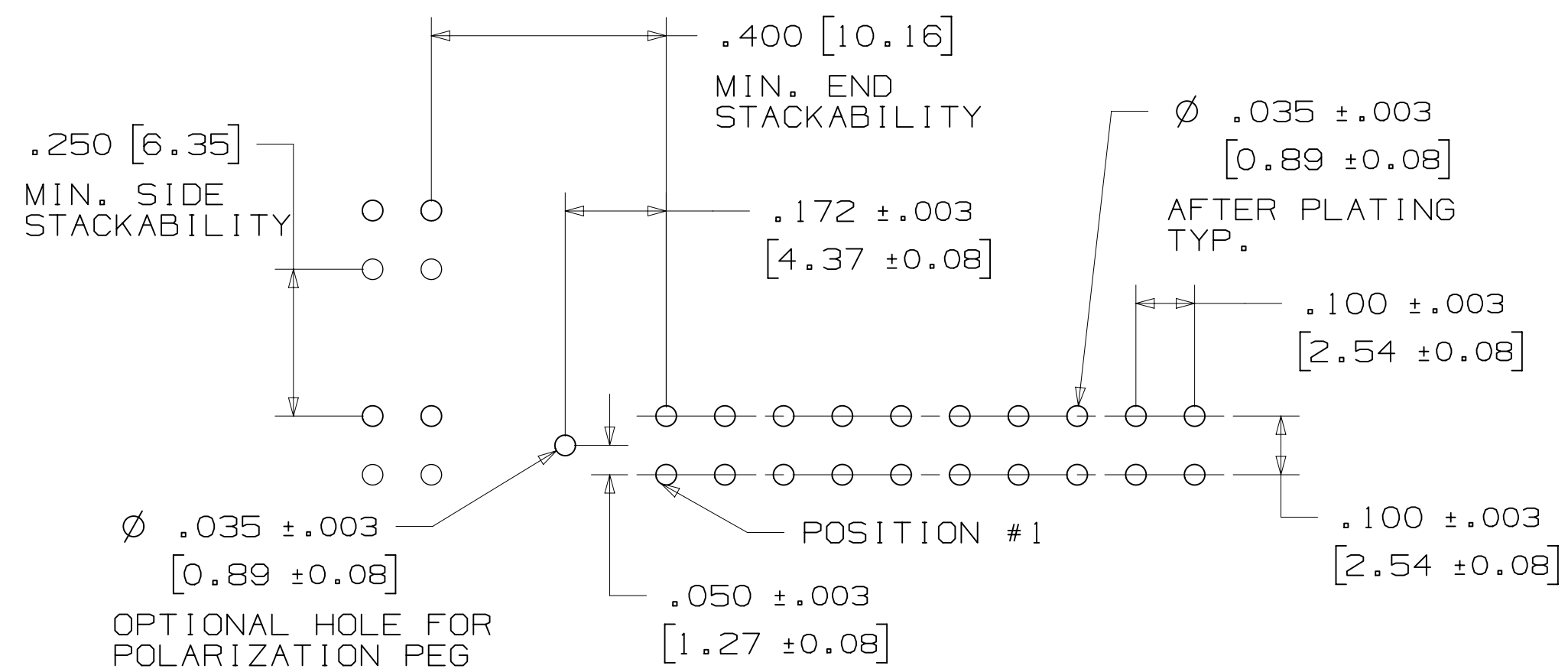
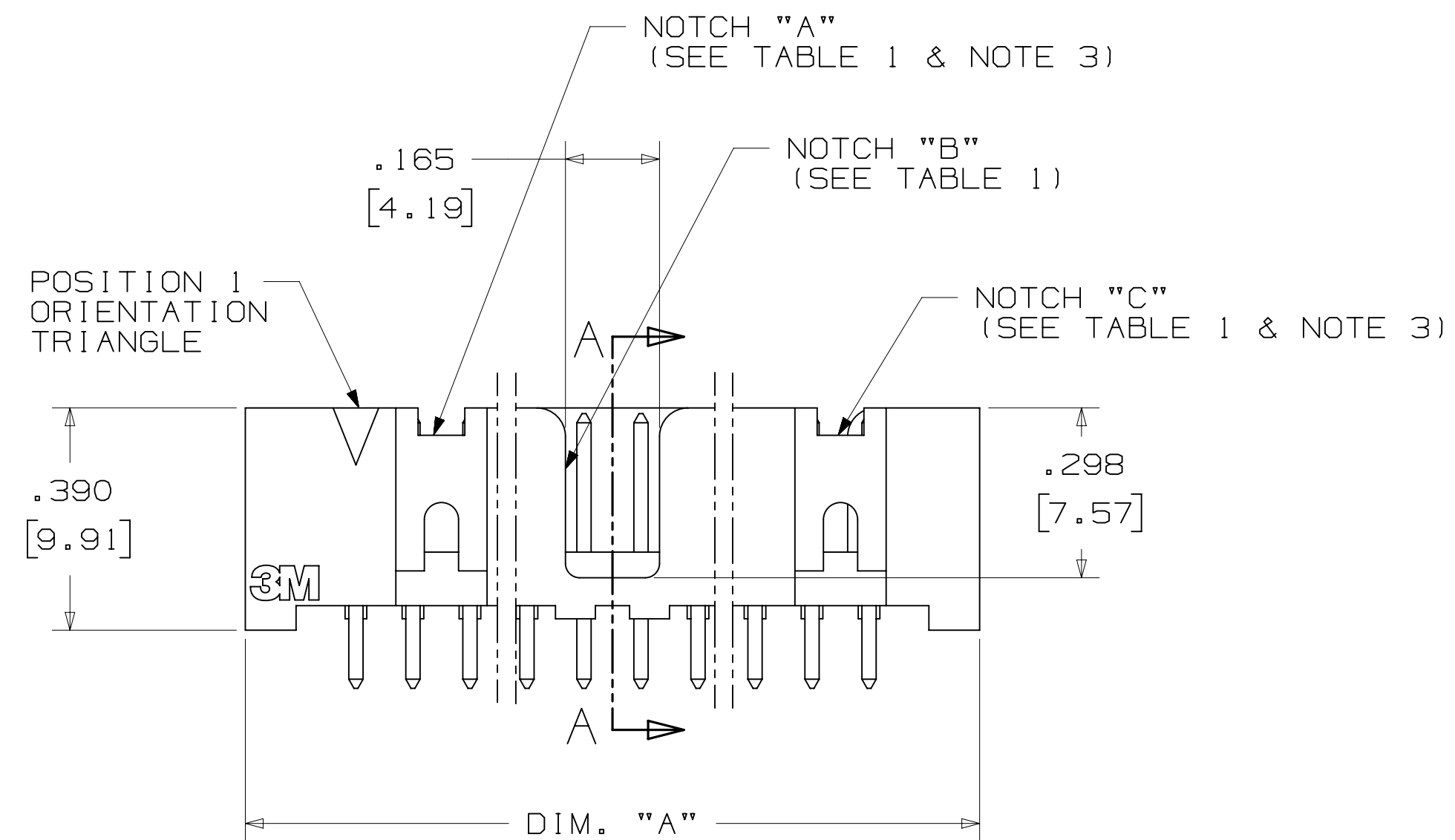
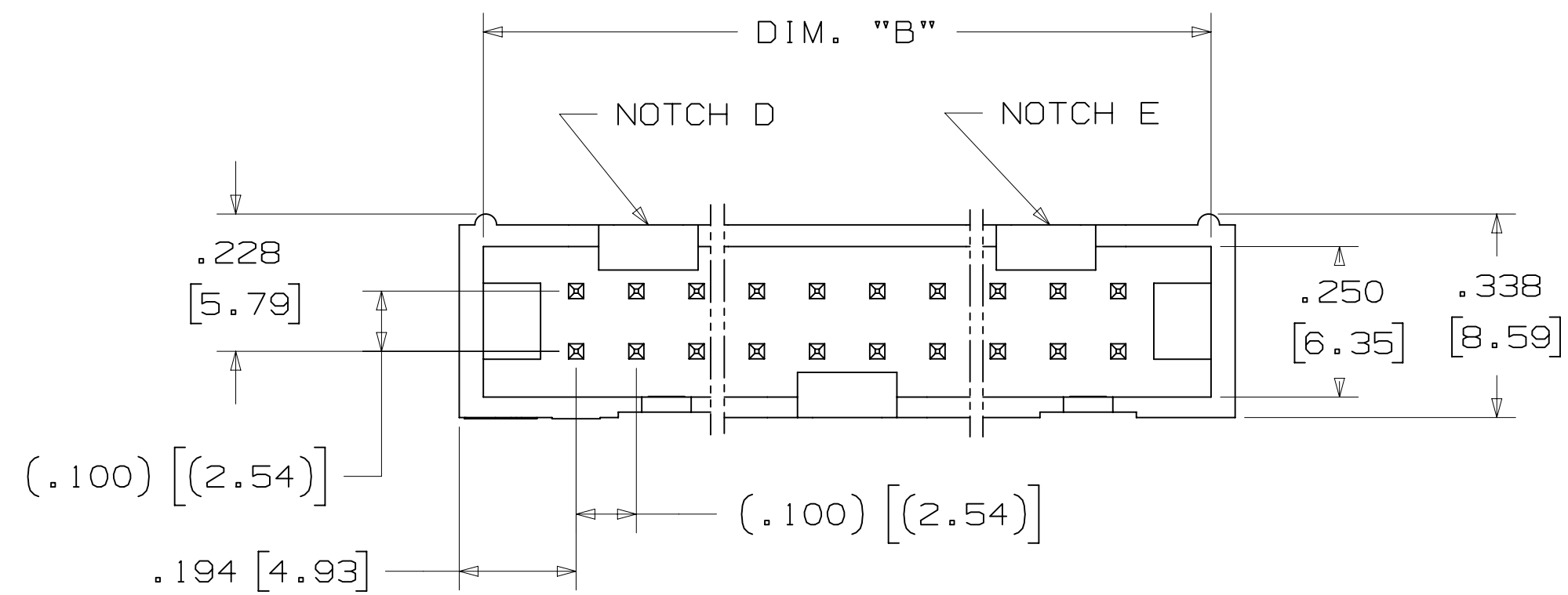
N= HIGH TEMP BLACK (PCT) _____
(RB, UB OR UG PLATING REQ'D)
BLANK= (UB OR UG PLATING)

PIN QUANTITY:
(SEE TABLE 1)

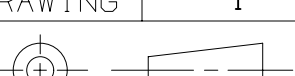
SOLDER TAIL: _____
 02 = FOR .062 [1.57] THICK BOARD
 03 = FOR .094 TO .125 [2.39 TO 3.18]
 THICK BOARD

- PLATING:

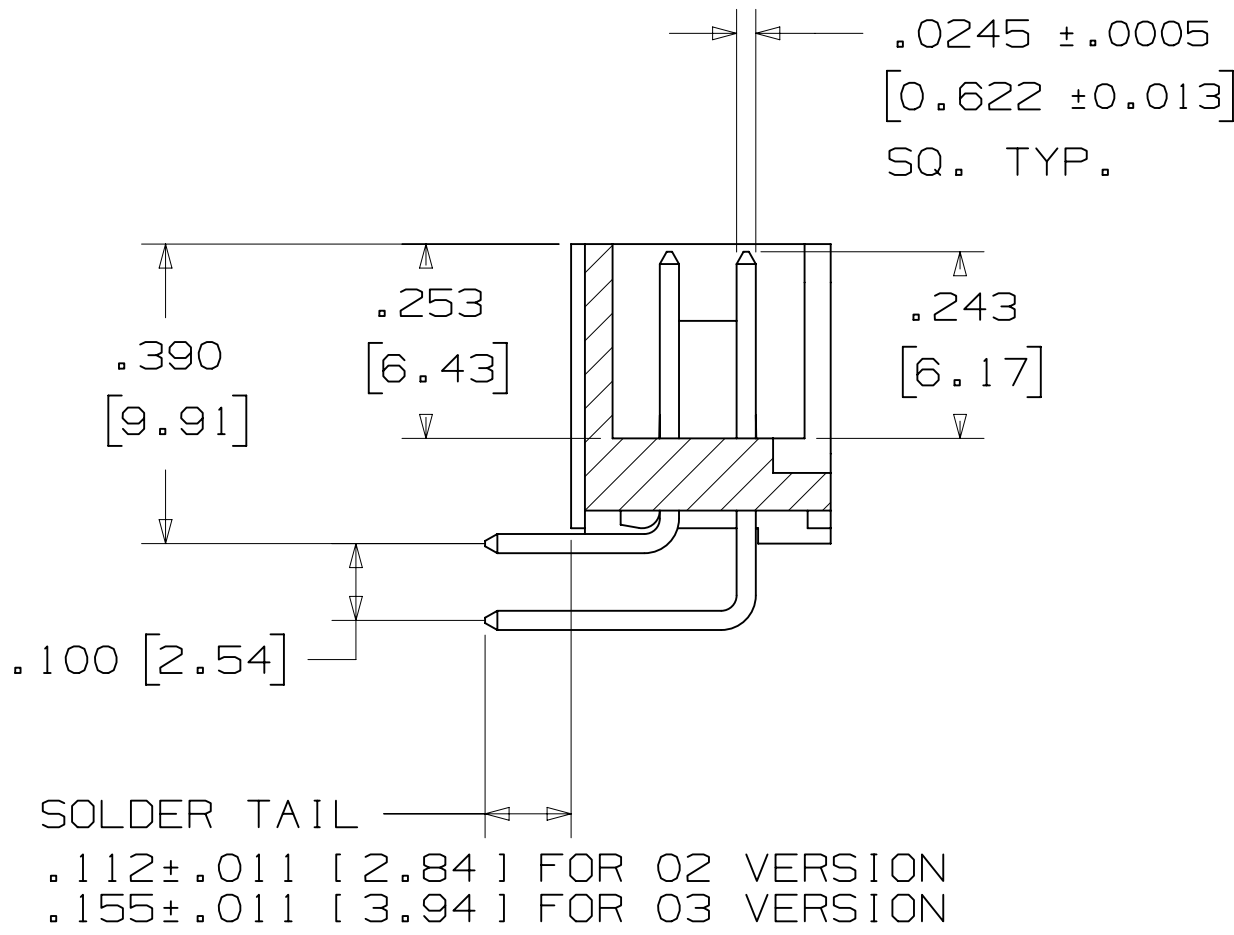
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RB = 30 $\mu$ " [0.76 $\mu$ m] AVG. GOLD  
200 $\mu$ " [5.08 $\mu$ m] MATTE TIN (RIA, E1 & C1 APPLY)  
UG = 15 $\mu$ " [0.38 $\mu$ m] AVG. GOLD  
200 $\mu$ " [5.08 $\mu$ m] 60:40 TIN-LEAD SOLDER TAILS  
(RIA E3 & C2 APPLY)  
UB = 30 $\mu$ " [0.76 $\mu$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



RECOMMENDED HOLE PATTERN
SHOWN FROM COMPONENT SIDE

M 56088		AUG 11, 2014		JNC		RS	
REVISED AND REDRAWN							
REV ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD	
DRFT CASTIGLIONE		DATE AUG 11, 2014		MFG		DATE	
CHKD		DATE		APPROV R. SCHERER		DATE SEP 05, 2014	
DIVISION Interconnect Solutions		DIVISION CODE EMSD		© 3M COPYRIGHT 2015			
DO NOT SCALE DRAWING 1		TOLERANCES EXCEPT AS NOTED		 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		INCHES .01 ± .001 ± .0005 ± .0000 ±		TITLE HEADER, 4-WALL, LO-PRO, 100 X 100, SMT, STRAIGHT & RA			
INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS .01 ± .001 ± .0005 ± .0000 ±		CAGE NUMBER D78-5100-0770-7		REV. M	
MAX SURFACE ROUGHNESS 125 ☒ UNK SURFACES ☐ MARKED ONLY		ANGLES ±		MODEL 3000 SERIES		DET. LISTS ☐ YES ☒ NO 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

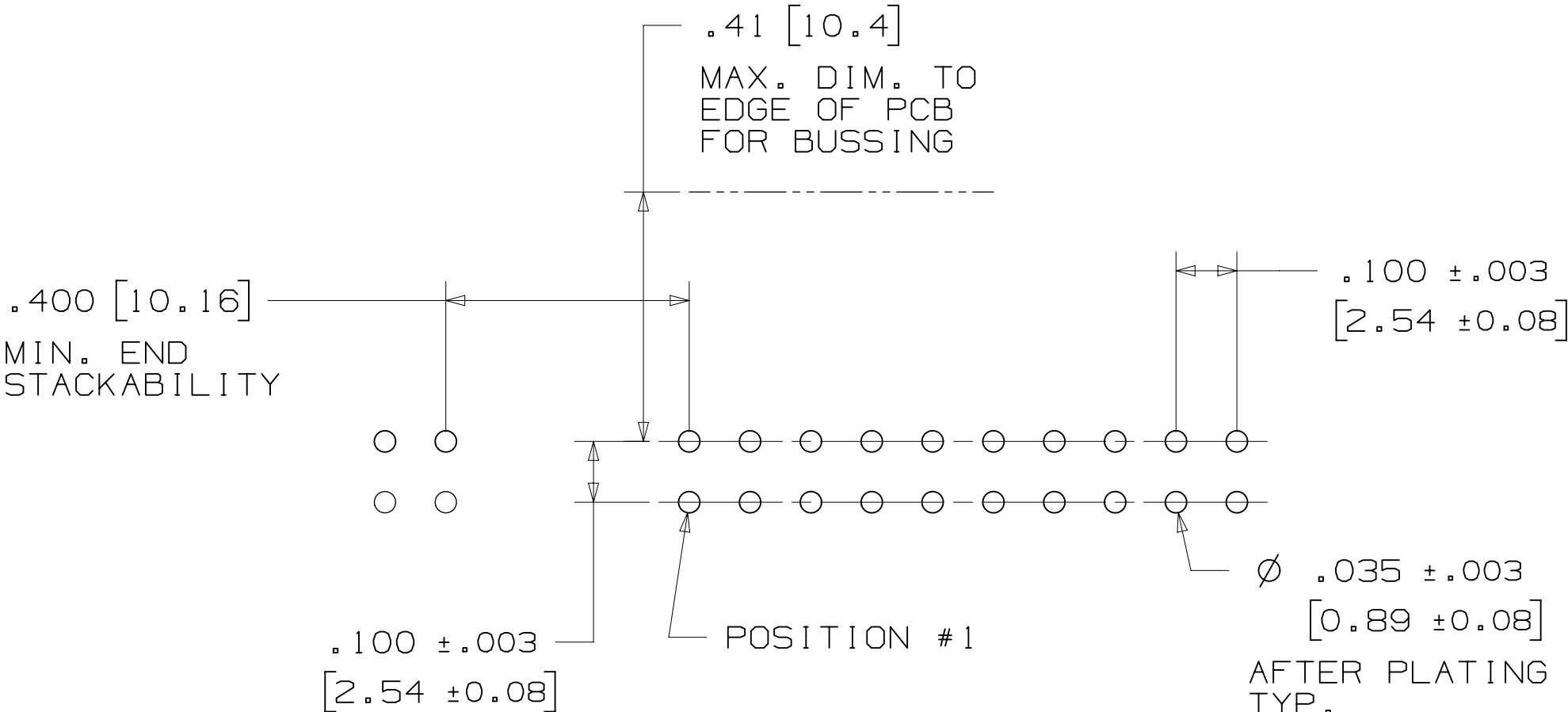
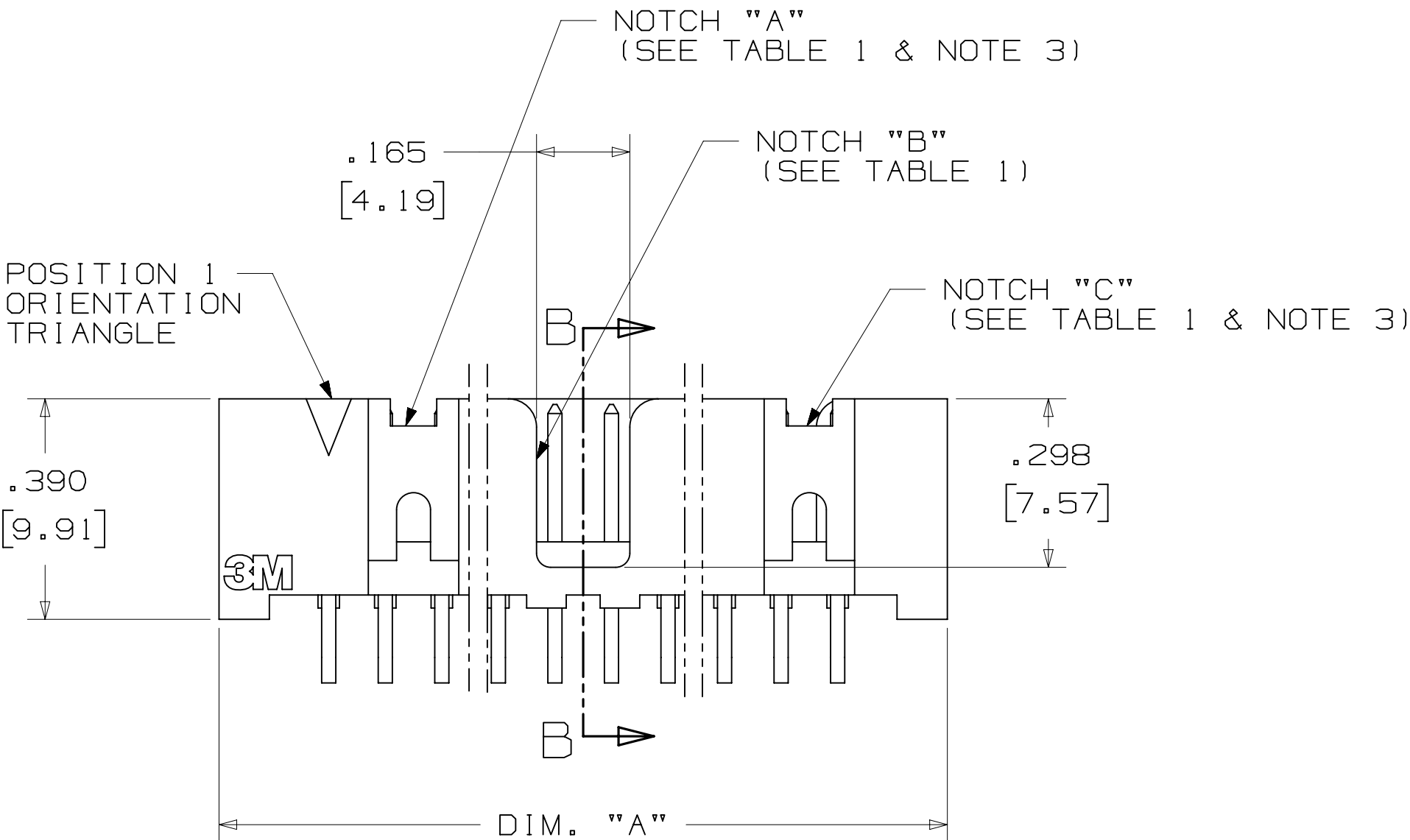
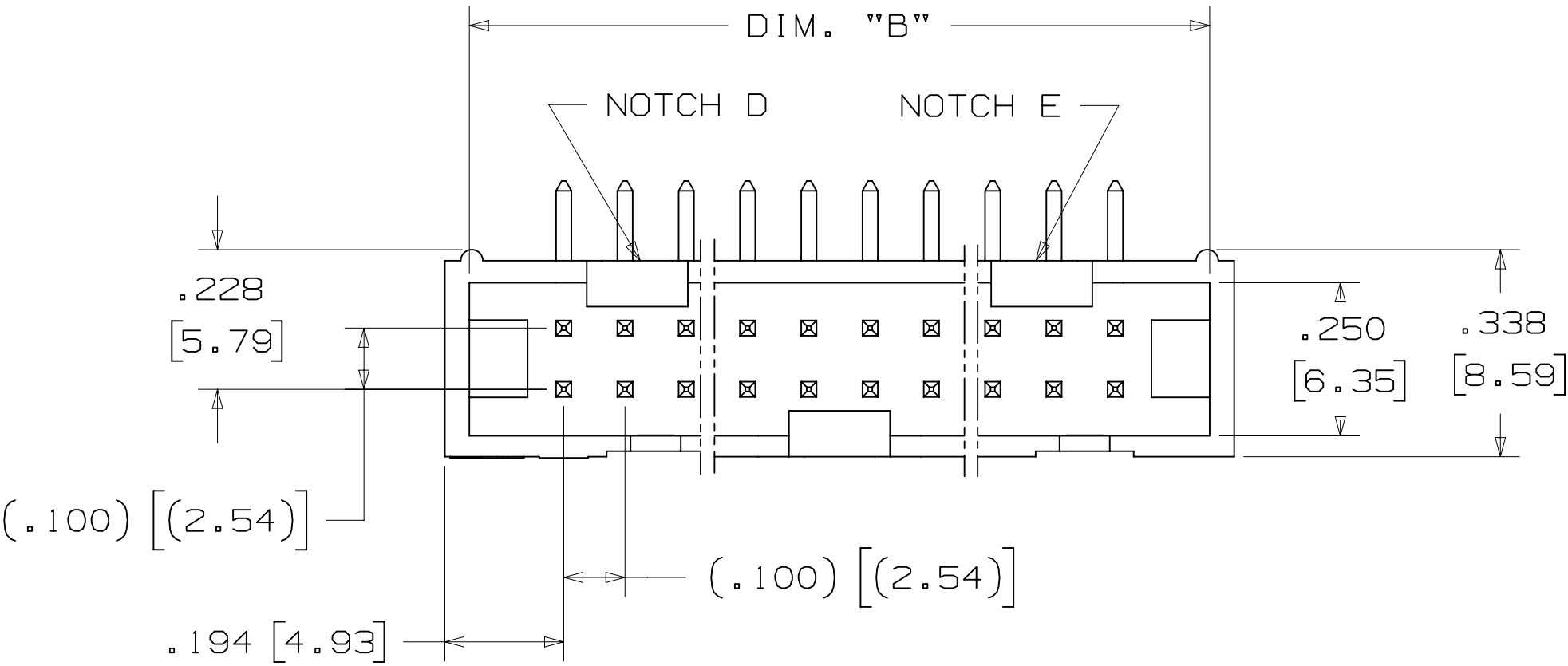
X25XX-50XX-XX

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

PIN QUANTITY:
(SEE TABLE 1)

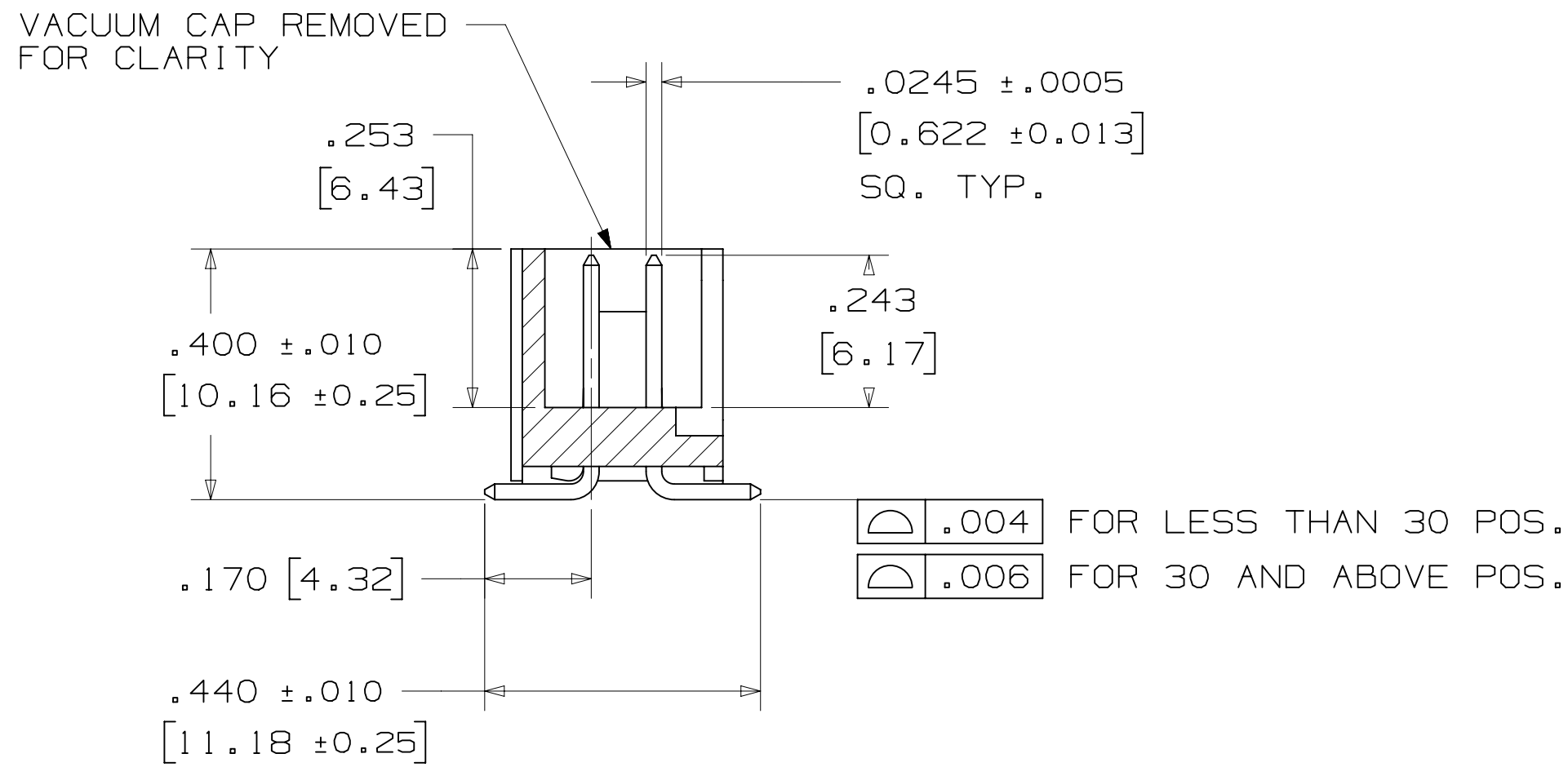
SOLDER TAIL:
02 = FOR .062 [1.57] THICK BOARD
03 = FOR .094 TO .125 [2.39 TO 3.18] THICK BOARD

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	
X25XX-50XX-XX				ECO		ECO		AUG 11, 2014		MFG		DATE	
DIVISION		DIVISION CODE		CHKD		CHKD		DATE		DATE		DATE	
Interconnect Solutions		EMSD		R. SCHERER		R. SCHERER		AUG 11, 2014		SEP 05, 2014			
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		TOLERANCES EXCEPT AS NOTED		TOLERANCES EXCEPT AS NOTED		TOLERANCES EXCEPT AS NOTED		TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION		THIRD ANGLE PROJECTION	
MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS		MAX SURFACE ROUGHNESS	
MARKED ONLY		MARKED ONLY		MARKED ONLY		MARKED ONLY		MARKED ONLY		MARKED ONLY		MARKED ONLY	
CAGE NUMBER		CAGE NUMBER		CAGE NUMBER		CAGE NUMBER		CAGE NUMBER		CAGE NUMBER		CAGE NUMBER	
D78-5100-0770-7		D78-5100-0770-7		D78-5100-0770-7		D78-5100-0770-7		D78-5100-0770-7		D78-5100-0770-7		D78-5100-0770-7	
MODEL		MODEL		MODEL		MODEL		MODEL		MODEL		MODEL	
3000 SERIES		3000 SERIES		3000 SERIES		3000 SERIES		3000 SERIES		3000 SERIES		3000 SERIES	
LISTS		LISTS		LISTS		LISTS		LISTS		LISTS		LISTS	
YES		YES		YES		YES		YES		YES		YES	
NO		NO		NO		NO		NO		NO		NO	
SHT 3 OF 5		SHT 3 OF 5		SHT 3 OF 5		SHT 3 OF 5		SHT 3 OF 5		SHT 3 OF 5		SHT 3 OF 5	



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

ORDERING INFORMATION
SURFACE MOUNT VERSION

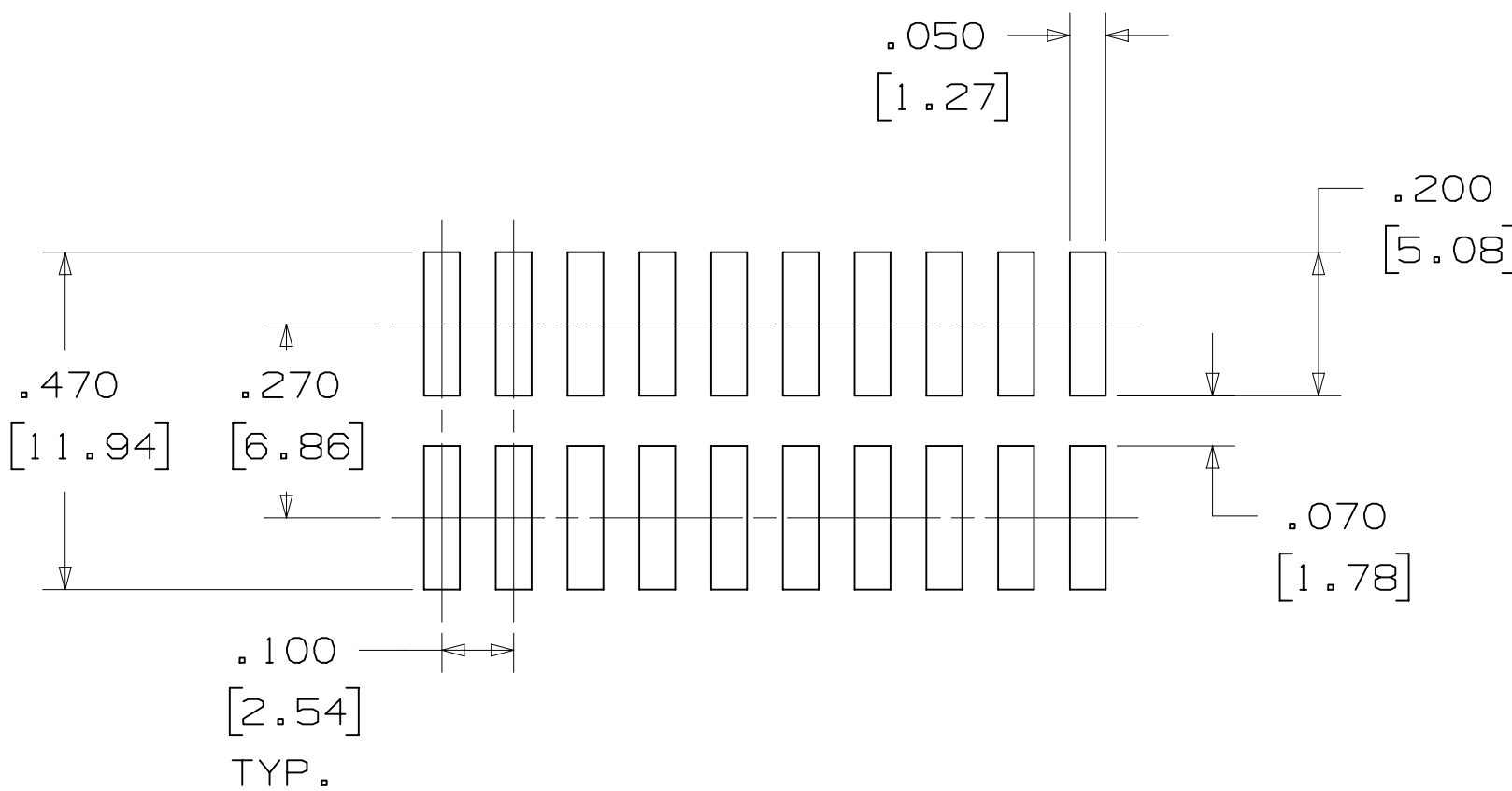
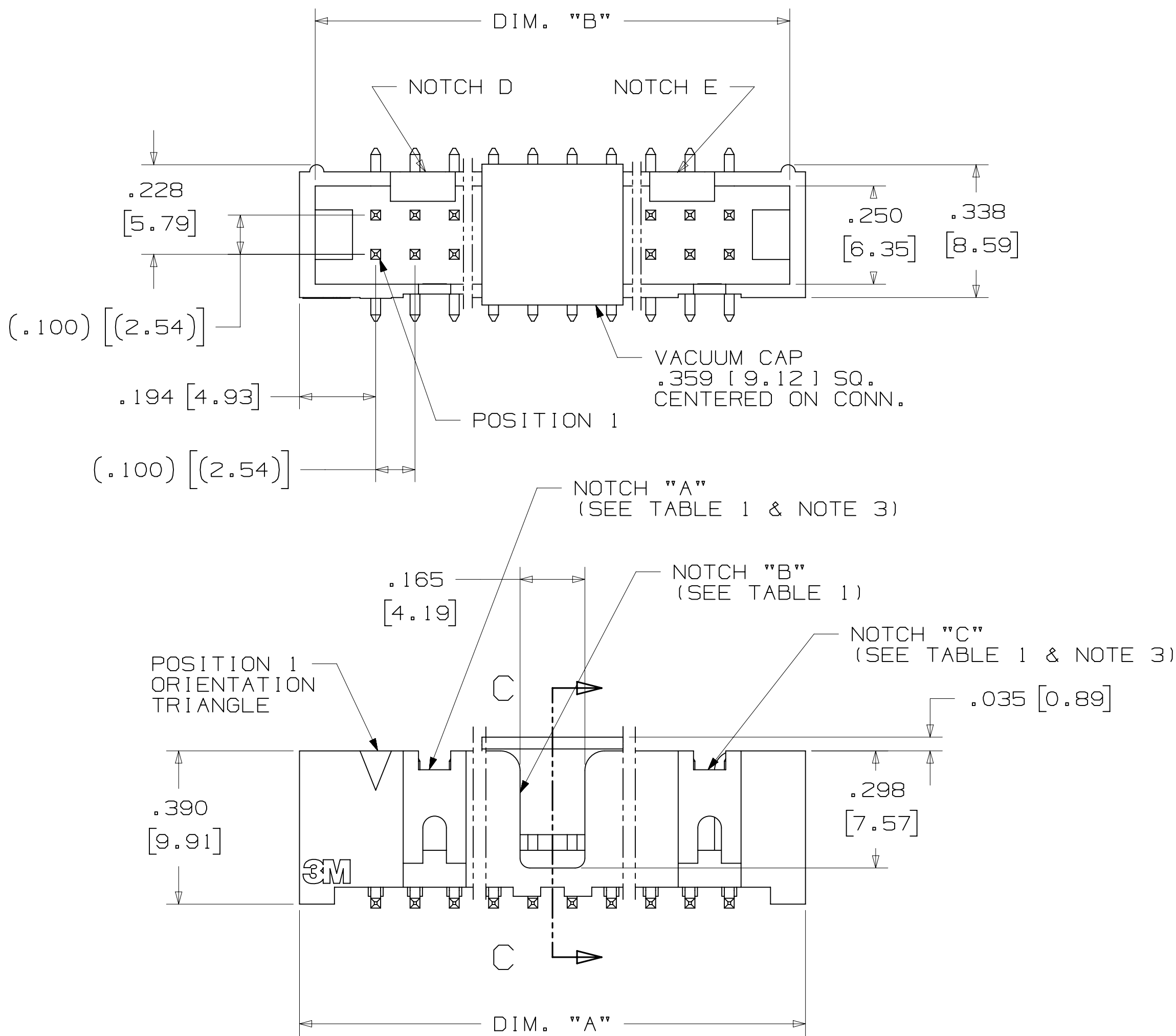
N25XX-6VOC-XX-XX

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)



RECOMMENDED PAD LAYOUT

DESIGN REFERENCE		NEXT ASSEMBLY		REV. ECO		ISSUE DATE AND DESCRIPTION		DRFT CHKD	
DIVISION		DIVISION CODE		DATE		DATE		DATE	
Interconnect Solutions		EMSD		AUG 11, 2014		AUG 11, 2014		SEP 05, 2014	
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		INCHES .00 ±.01 .000 ±.005 .0000 ±		MILLIMETERS 0 ±.3 .00 ±.13 .000 ±	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 2009		MAX. SURFACE ROUGHNESS		DET. SURFACES		MARKED ONLY	
CAGE NUMBER		SIZE		DRAWING NO.		REV.		M	
3000 SERIES		D		78-5100-0770-7		SHT 4 OF 5			

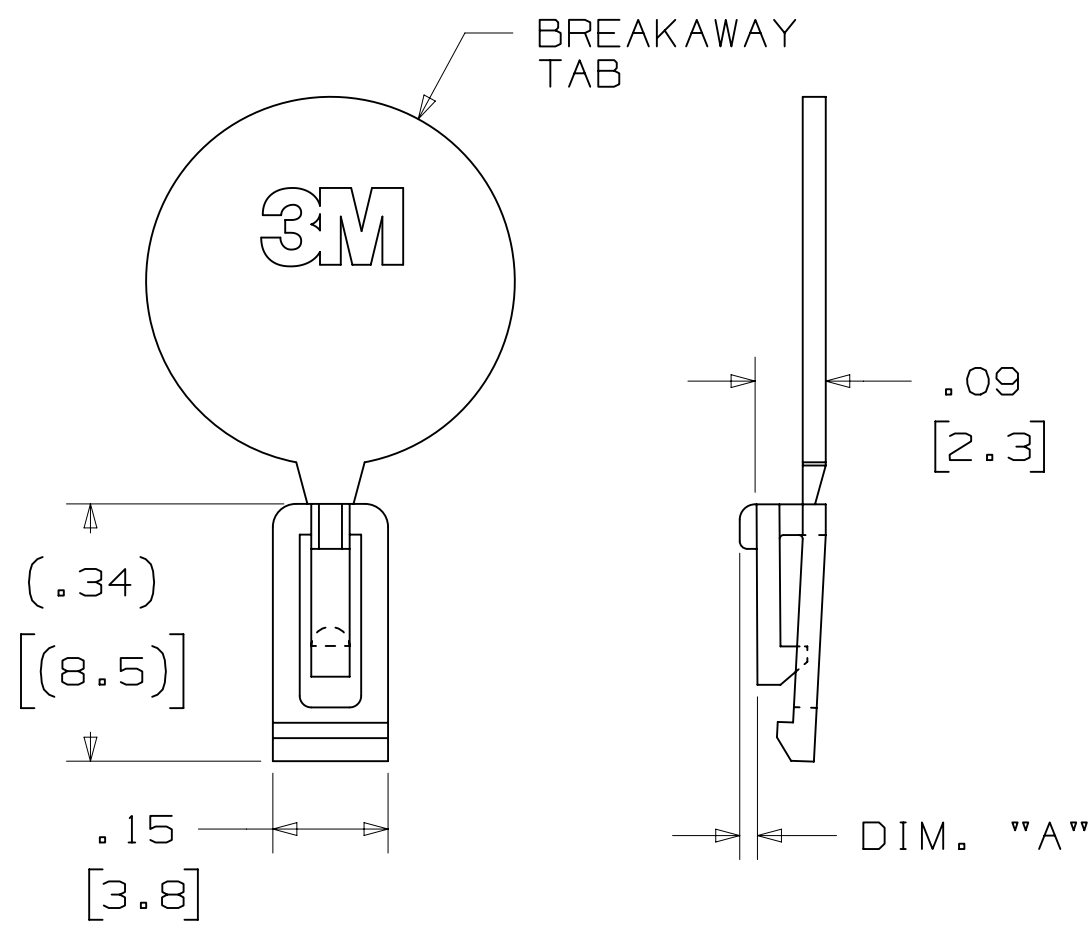
PART CUSTOMIZATION

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.

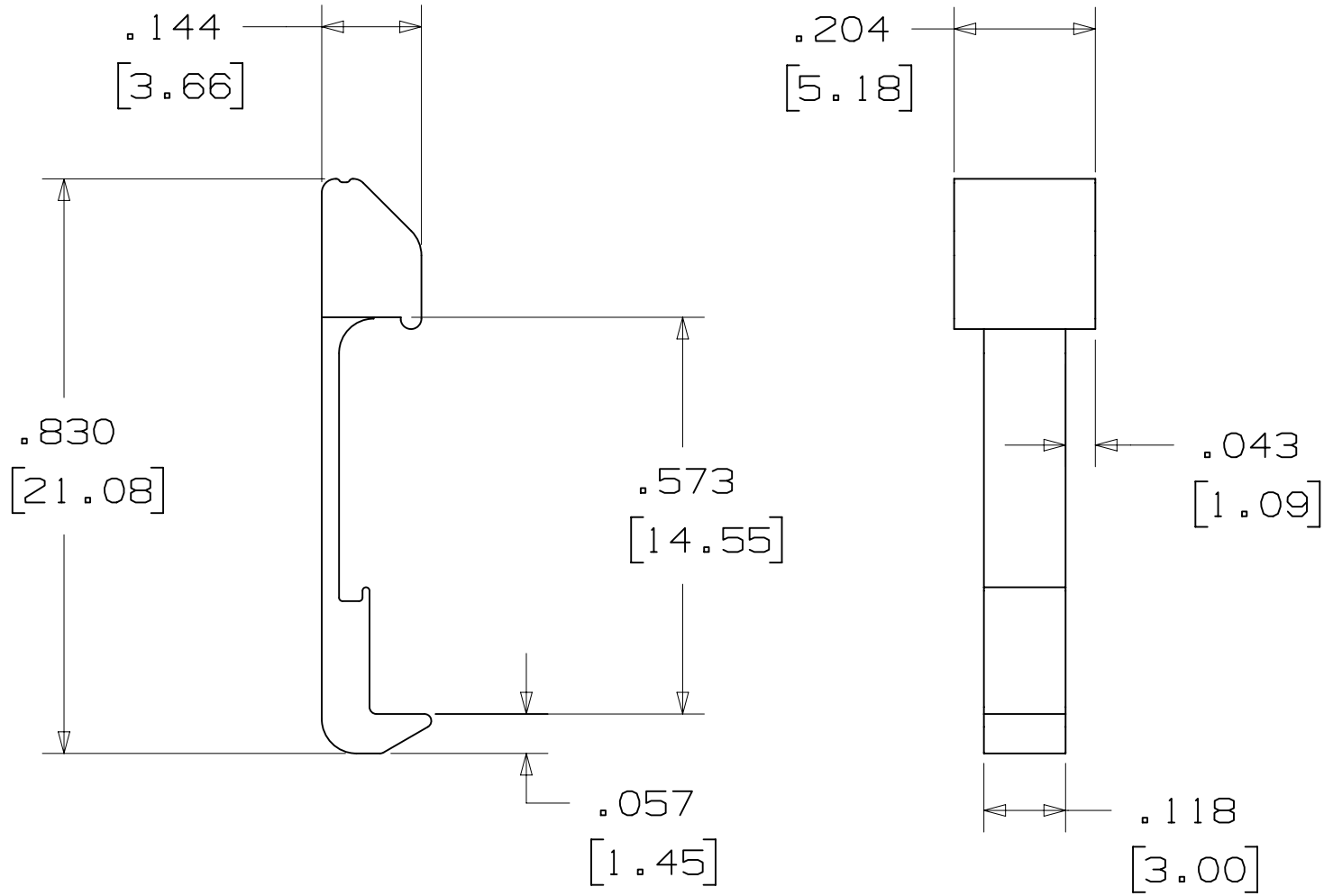
POLARIZING KEY



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

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

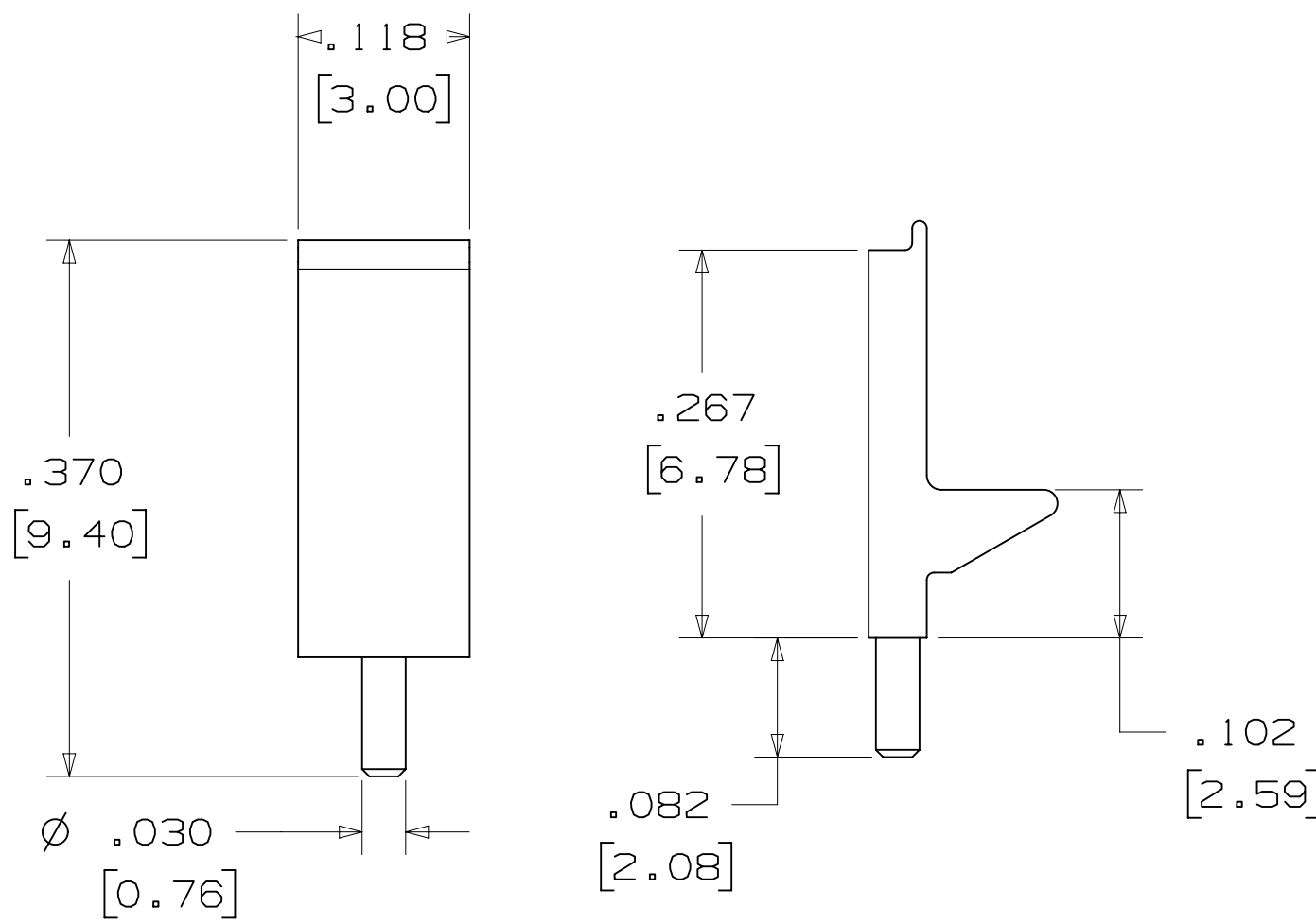
LOW PROFILE LATCH



PART NO.	MATERIAL	COLOR
3505-33B	NYLON	BLACK

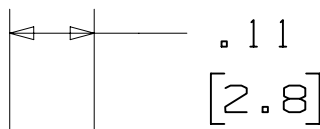
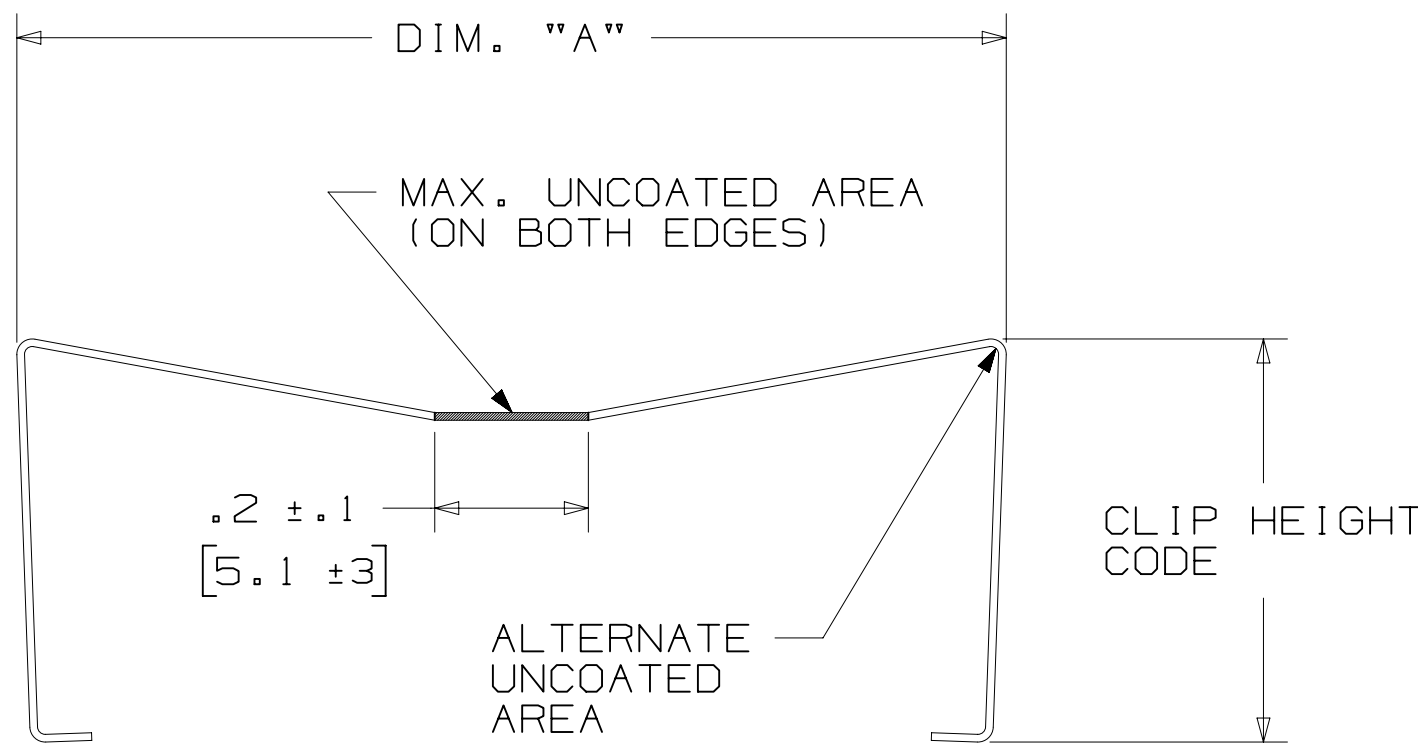
NOTE:
LATCHES NOT COMPATIBLE WITH REFLOW SOLDERING.
ATTACH LATCHES AFTER SOLDERING.

POLARIZING POST



PART NO.	MATERIAL	COLOR
3201-3	PCT	BLACK

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

DESIGN REFERENCE		NEXT ASSEMBLY		M 56068		AUG 11, 2014		JNC		RS	
REV		ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD			
CSTIGLIONE		AUG 11, 2014		MFG		DATE					
CHKD		R. SCHERER		DATE		SEP 05, 2014					
DIVISION		Interconnect Solutions		DIVISION CODE		EMSD					
DO NOT SCALE DRAWING		SCALE 4 1		TOLERANCES EXCEPT AS NOTED							
THIRD ANGLE PROJECTION				INCHES		.00 ± .01					
INTERPRET PER ASME Y14.5 - 2009				MILLIMETERS		0 ± .005					
MAX SURFACE ROUGHNESS				.00 ± .13							
SURFACES											
MARKED ONLY											
CAGE NUMBER		D 78-5100-0770-7		SIZE		DRAWING NO.		REV.			
MODEL		3000 SERIES		DET		YES		NO		SHT 5 OF 5	