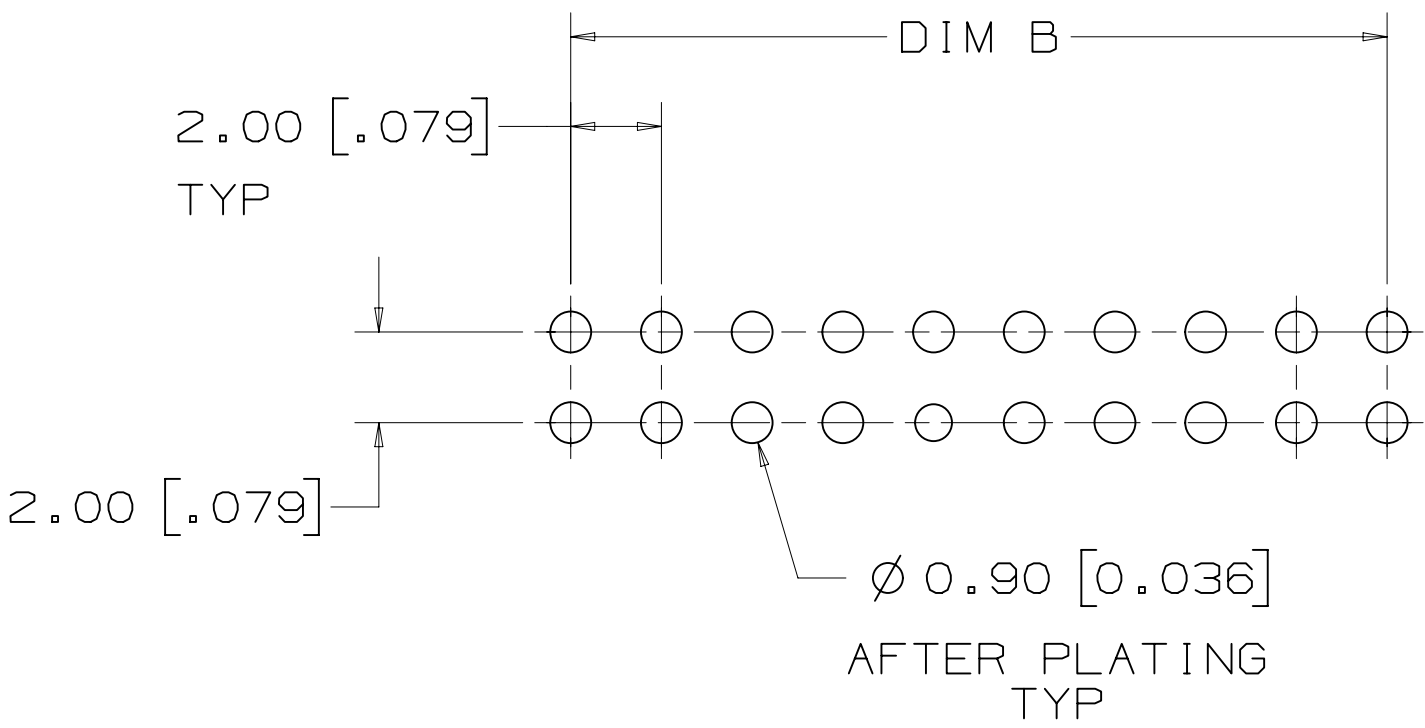
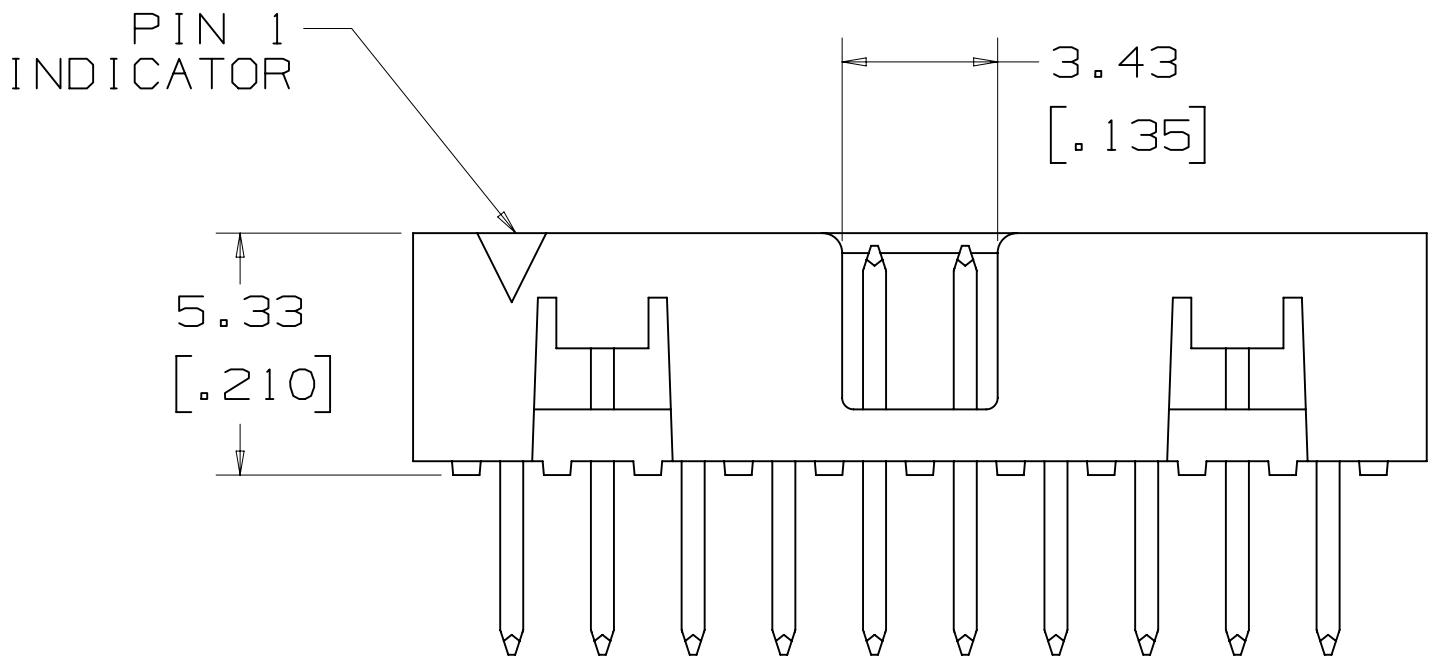
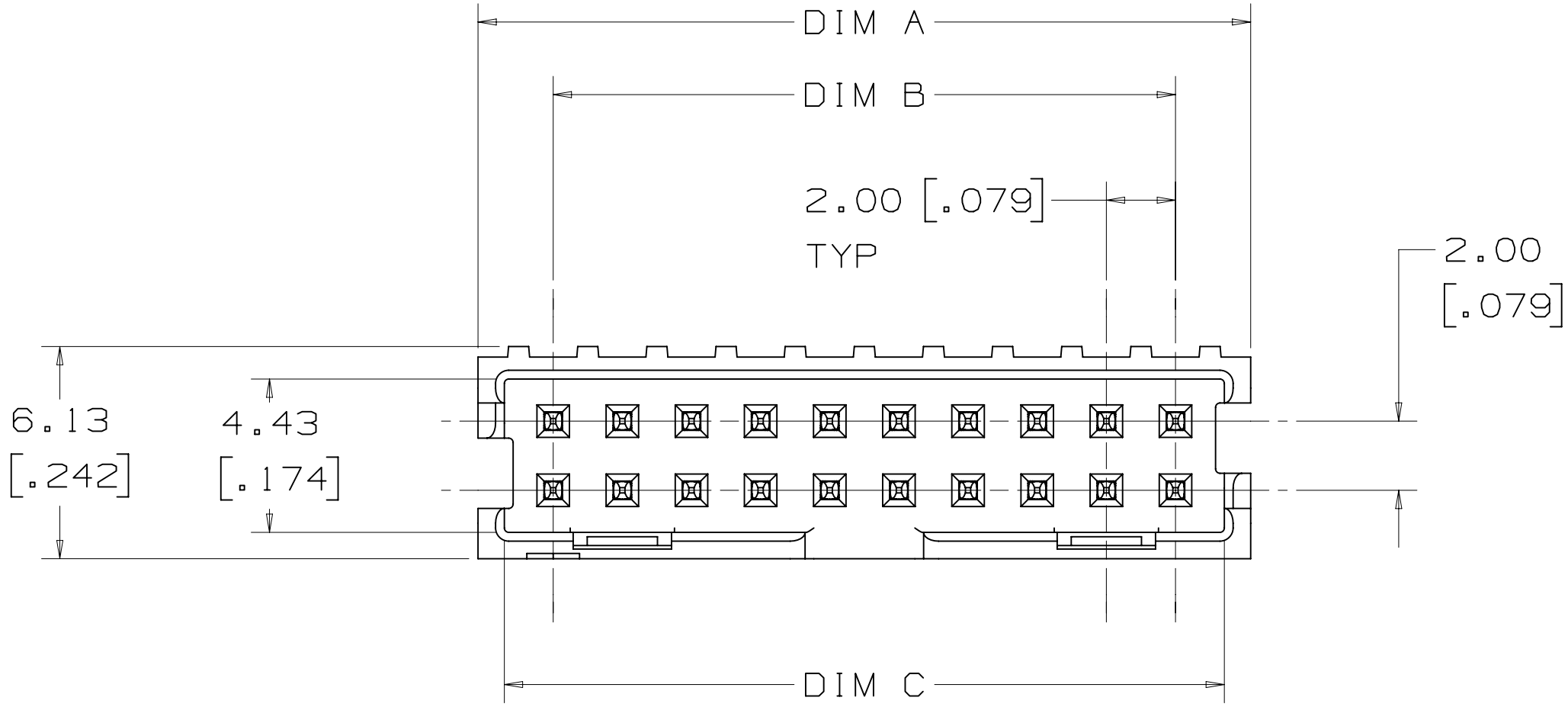
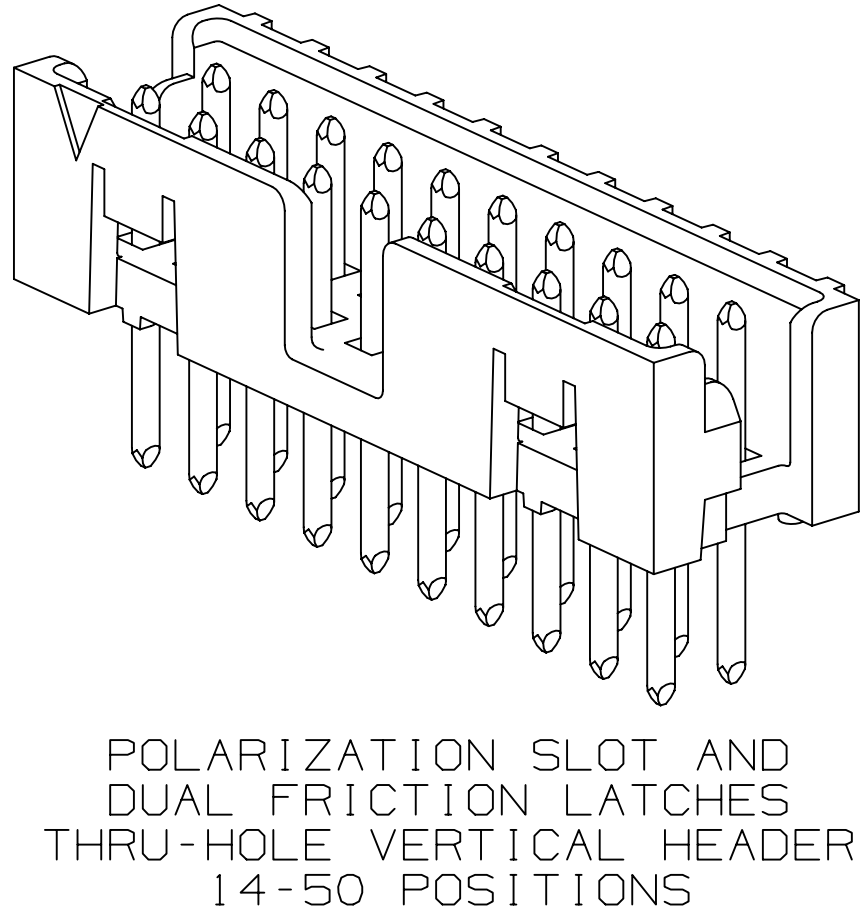
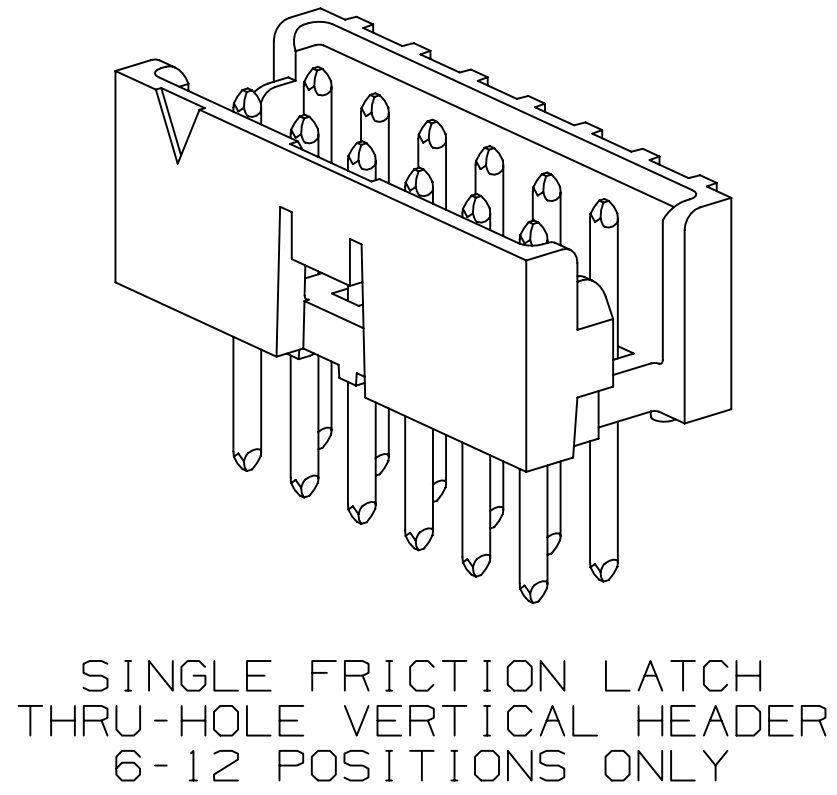
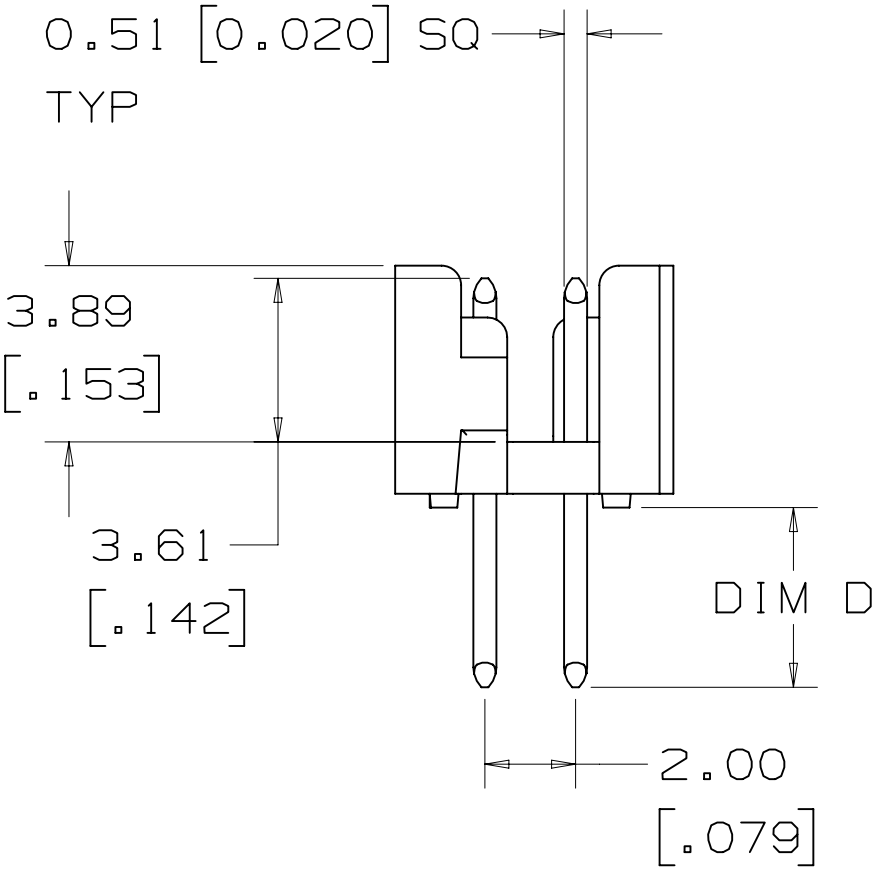
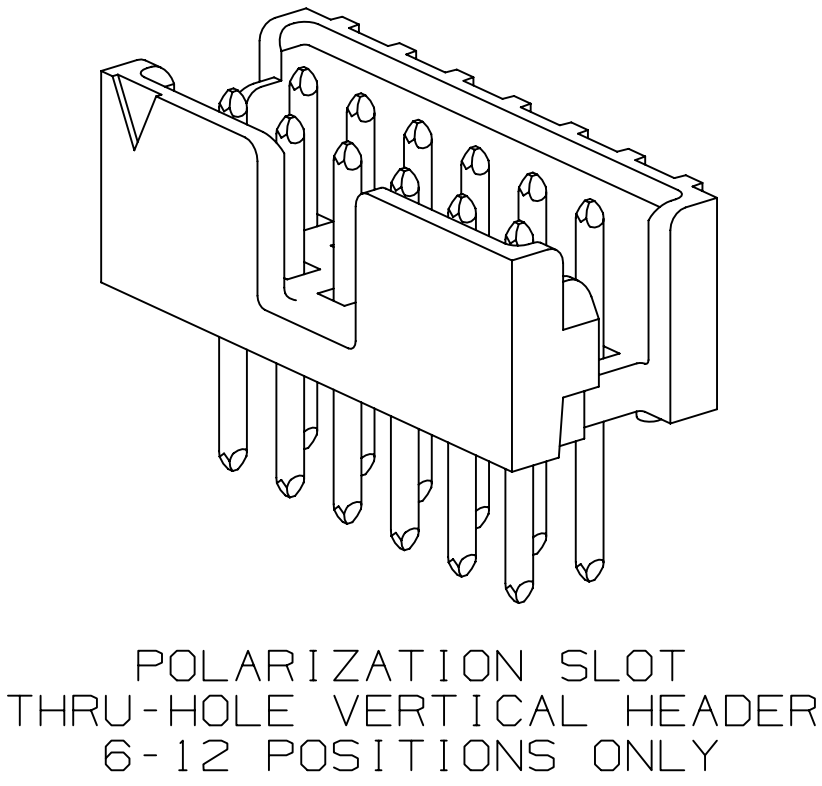


3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



RECOMMENDED PCB HOLE PATTERN
TOLERANCE = 0.05 [.002]



PERFORMANCE [5] [7]

CURRENT:	1A, 6 LINES ENERGIZED
INSULATION RESISTANCE:	>1 X 10 ⁹ OHMS AT 500 VDC
WITHSTANDING VOLTAGE:	500 VACrms AT SEA LEVEL
TEMPERATURE RATING:	-55° C TO +105° C
SOLDER PROCESS TEMPERATURE:	260° C MAX PER IPC/JEDEC J-STD-020D

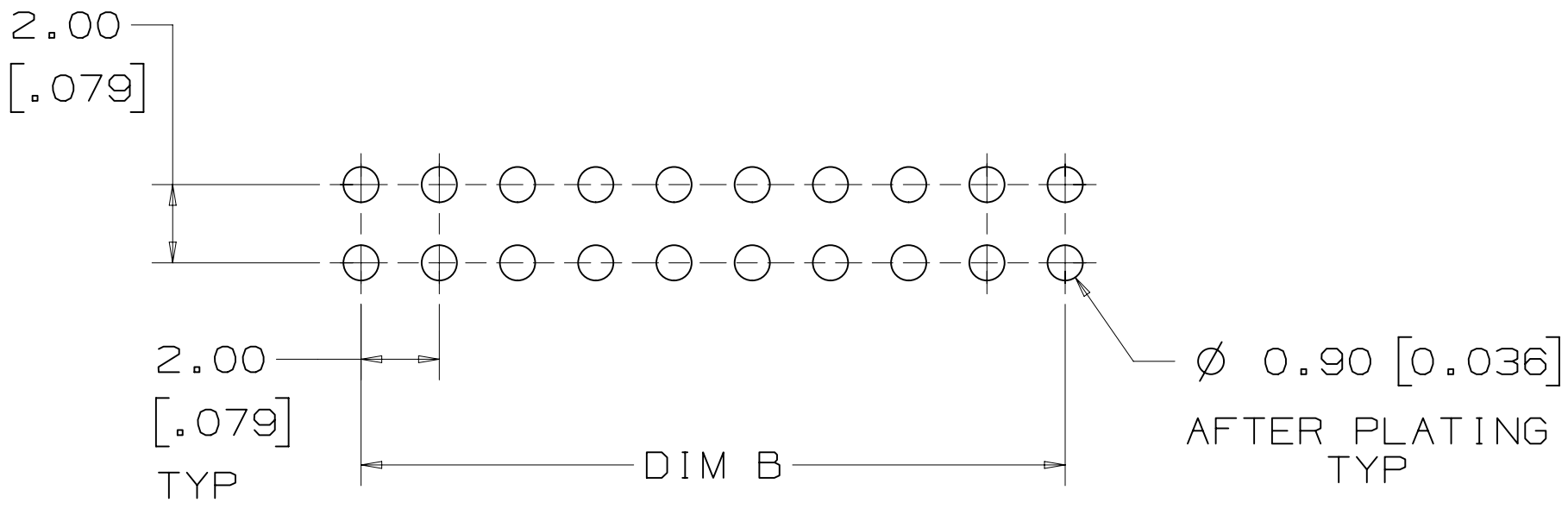
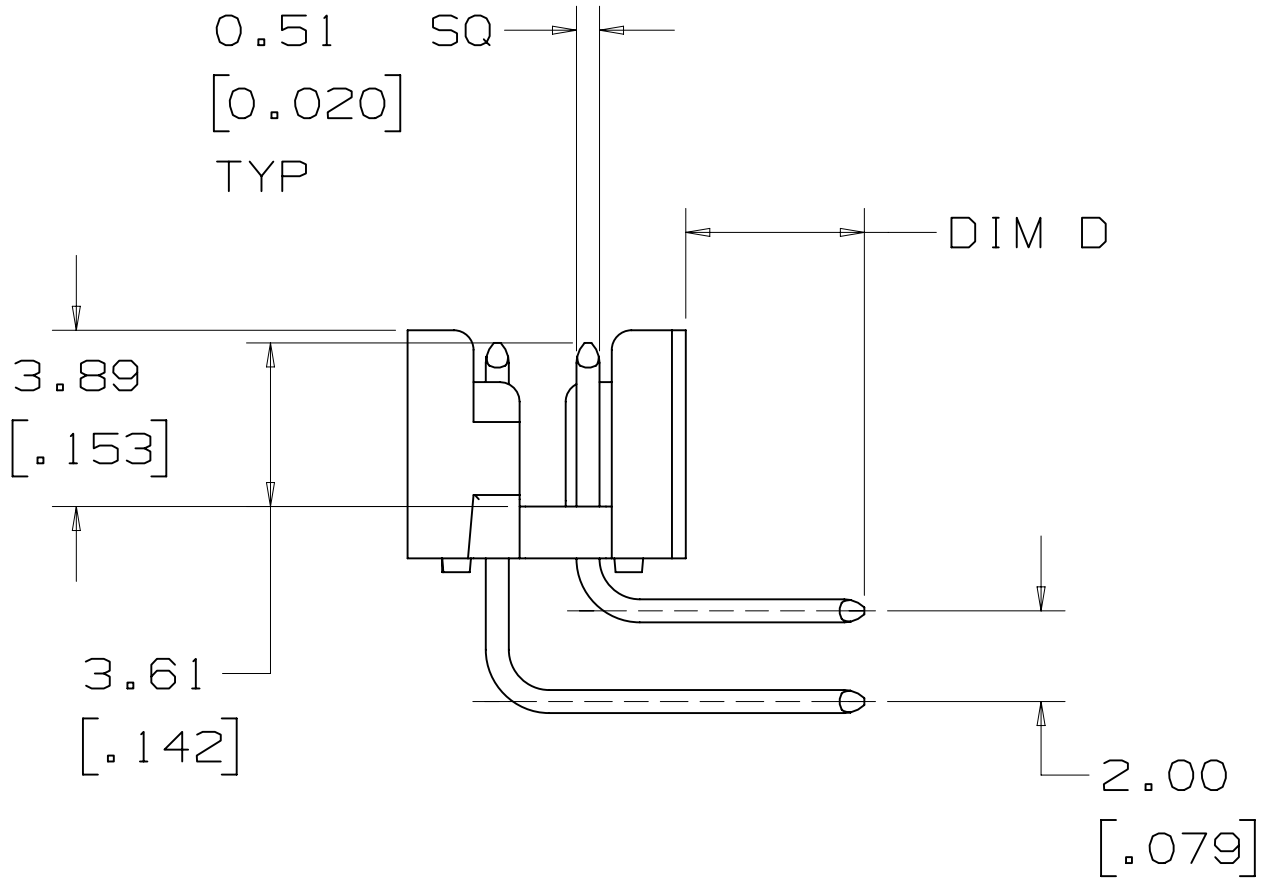
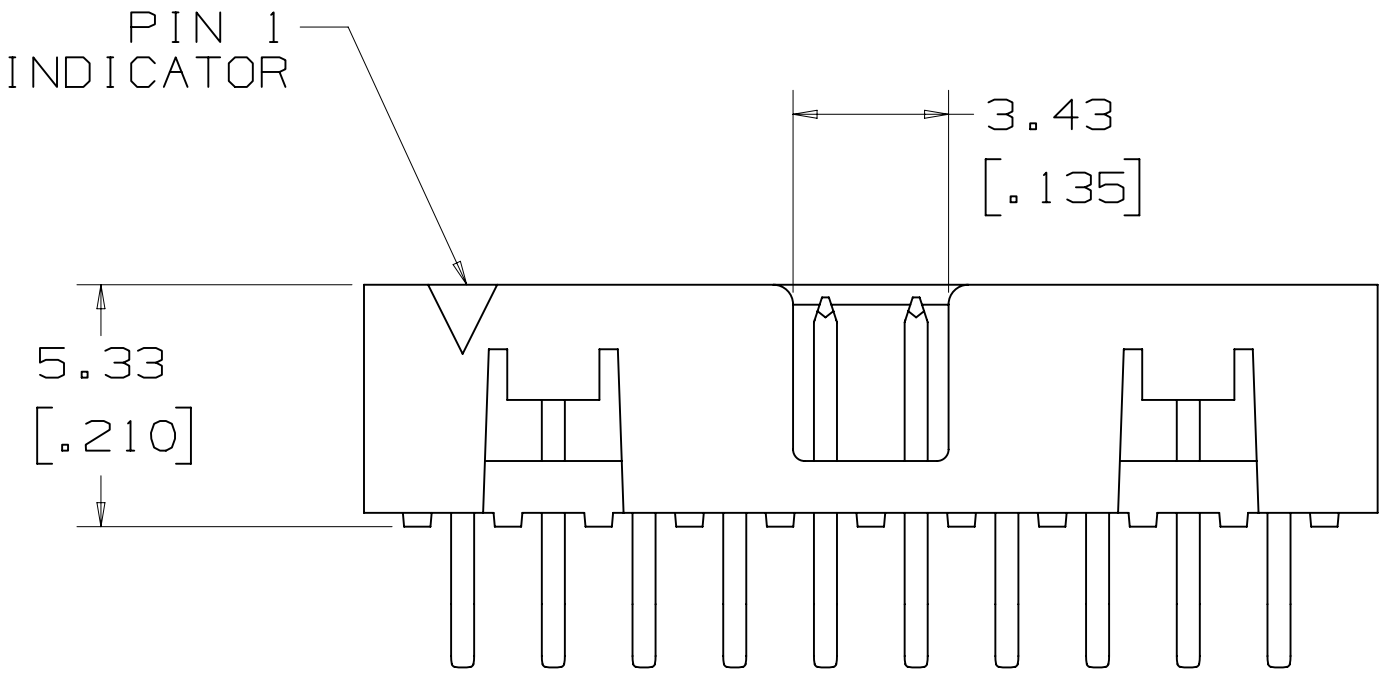
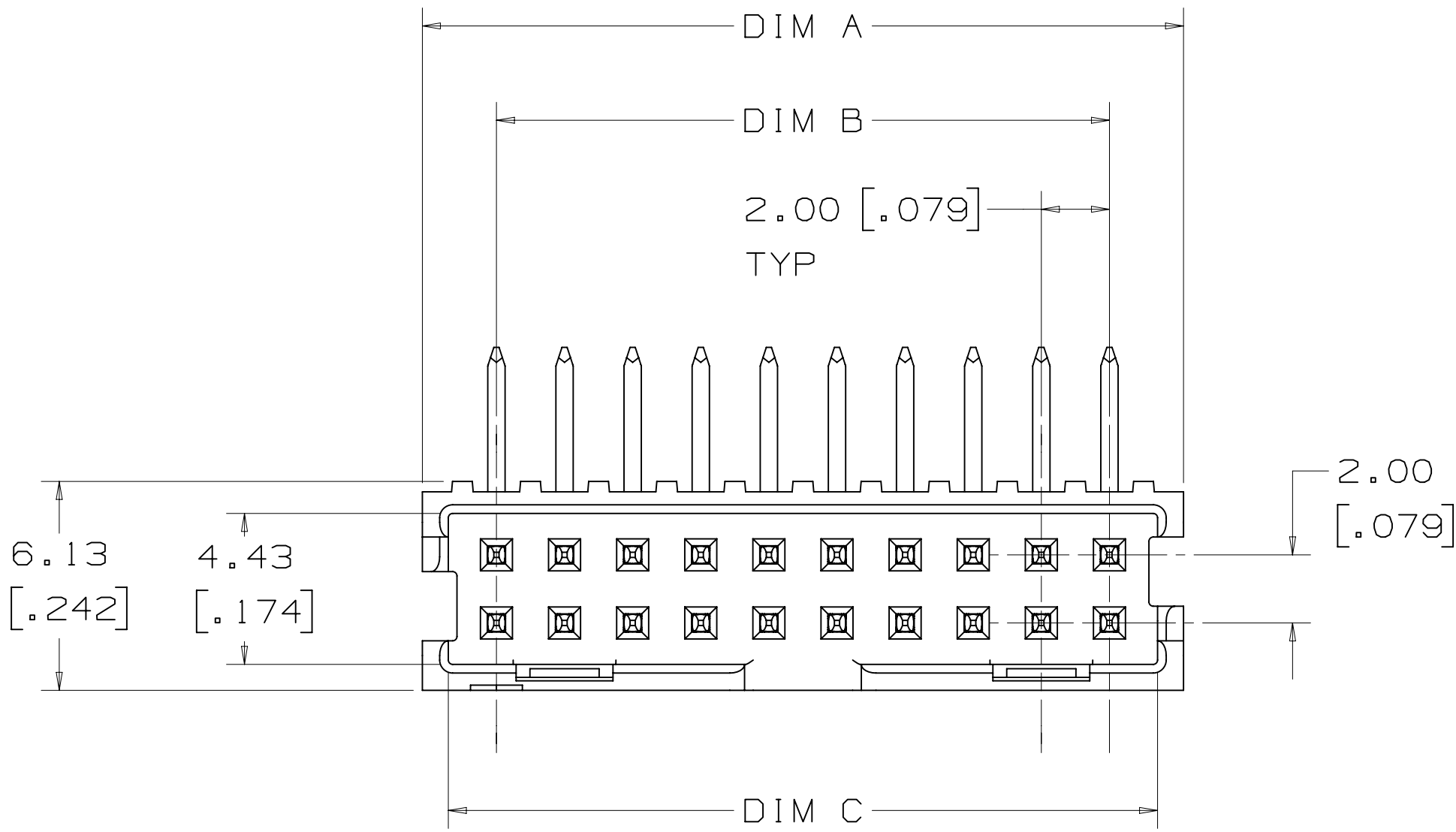
REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

METRIC [ENGLISH]

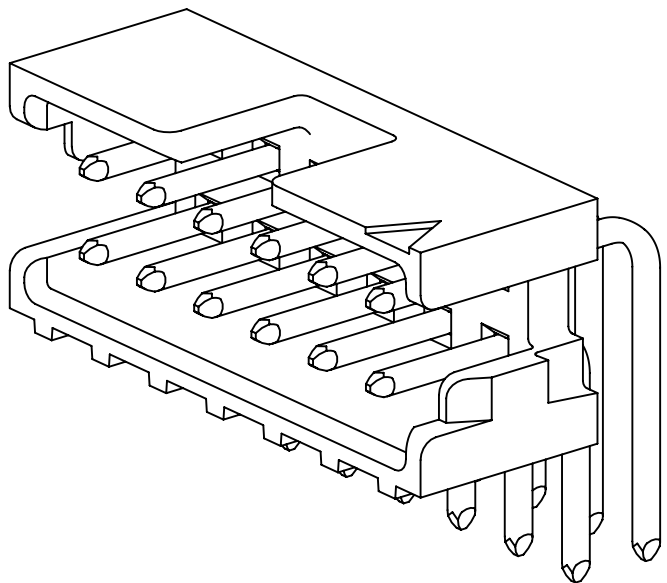
- NOTES
- MATERIAL:
BODY: HIGH TEMPERATURE
GLASS FILLED LCP, BLACK
UL94V-0
CONTACTS: COPPER ALLOY
 - PLATING:
2.03-3.81 μm [80-150 μin]
NICKEL UNDERPLATE.
0.38 μm [15 μin] OR
0.76 μm [30 μin] AVG GOLD
ON WIPING AREA.
5.08 μm [200 μin] MIN
MATTE TIN ON SOLDER TAILS.
 - STANDARD LENGTH HEADERS
MATE WITH 3M™ SOCKETS,
158 SERIES (REFERENCE 3M
DRAWING 78-5100-2358-9).
 - EXTENDED LENGTH HEADERS
MATE WITH 3M™ SOCKETS,
870 SERIES.
 - FOR PRODUCT
SPECIFICATIONS AND
WARRANTY INFORMATION SEE
3M 78-5102-0078-1.
 - SEE THE REGULATORY
INFORMATION APPENDIX (RIA)
IN THE "RoHS COMPLIANCE"
SECTION OF
WWW.3MCONNECTOR.COM FOR
COMPLIANCE INFORMATION
(RIA E1 & C1 APPLY).
 - IN THE EVENT OF CONFLICT
BETWEEN THIS DATA AND
THAT CONTAINED IN THE
PRODUCT SPECIFICATION,
THE PRODUCT SPECIFICATION
TAKES PRECEDENT.

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DIST. PART CODES				DRP	L. SCHMIDT	DATE	JUL 29, 2010	MFG	DATE
DIVISION		DIVISION CODE		CHKD		DATE		APPR	DATE
								S FELDMAN	AUG 09, 2010
DO NOT SCALE DRAWING		SCALE 6 1		TOLERANCES EXCEPT AS NOTED		© 3M COPYRIGHT 2010 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 - 1994		INCHES 0 ± 0.00 ± 0.002 ± 0.000		MILLIMETERS 0 ± 0.00 ± 0.13 ± 0.000			
MAX SURFACE ROUGHNESS 125 ✓ □ ALL SURFACES ✗ MARKED ONLY		ANGLES ±1°		TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES		CAGE NUMBER D 78-5100-2359-7		REV. A	
				MODEL		DET LISTS		YES NO SHT 1 OF 4	

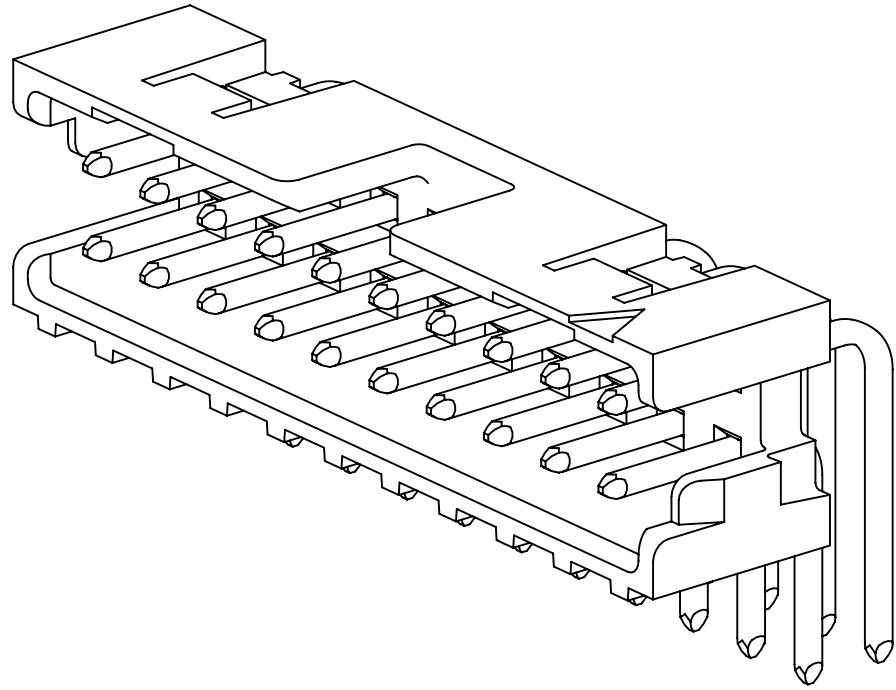
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



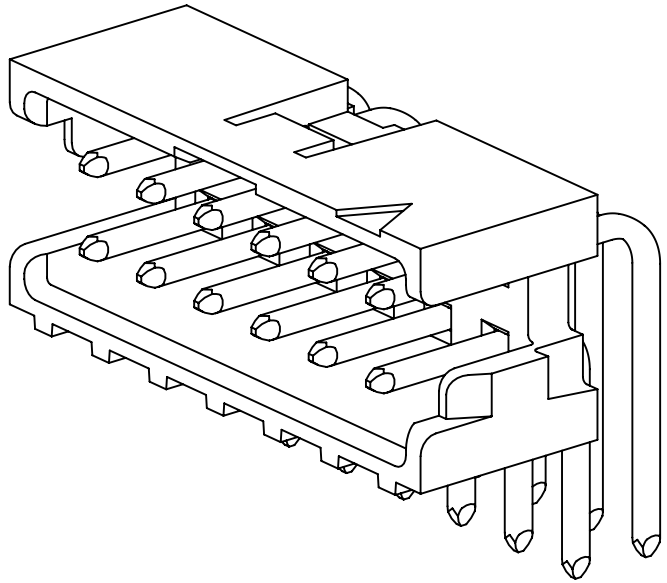
RECOMMENDED PCB HOLE PATTERN
TOLERANCE = ±0.05 [0.002]



POLARIZATION SLOT
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY



POLARIZATION SLOT AND
DUAL FRICTION LATCHES
RIGHT ANGLE HEADER
14-50 POSITIONS



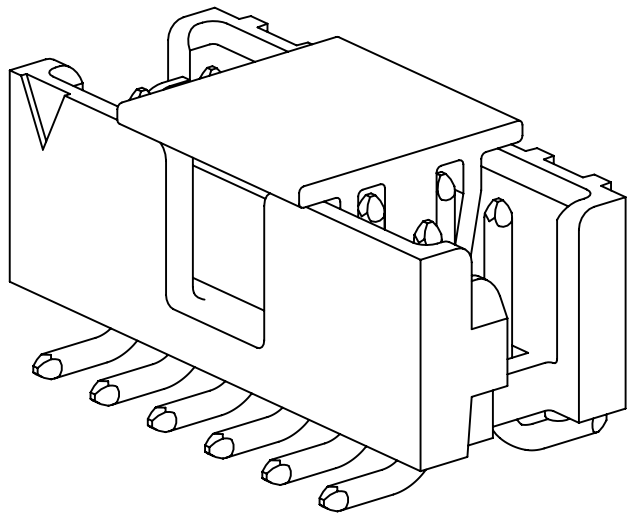
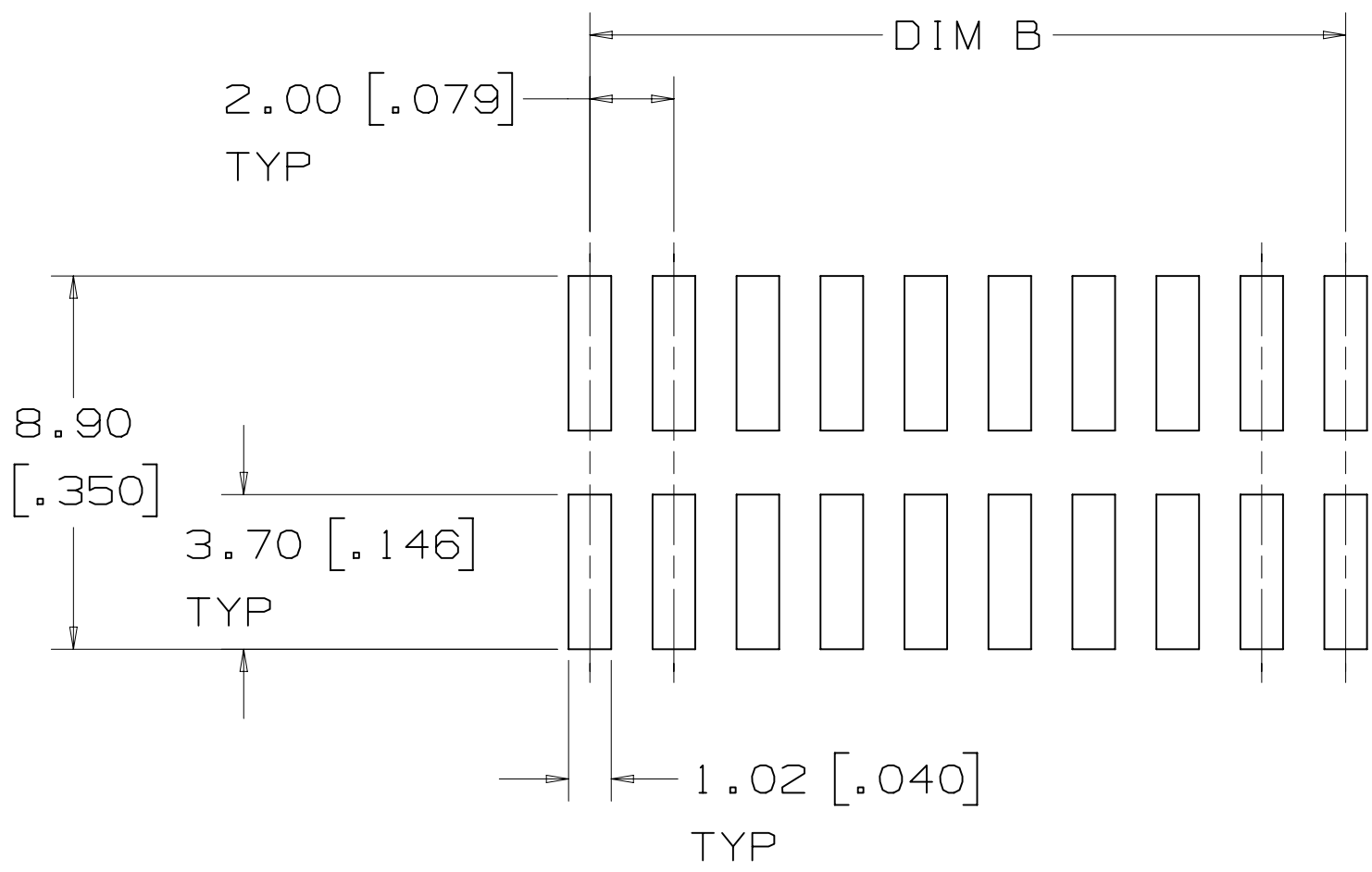
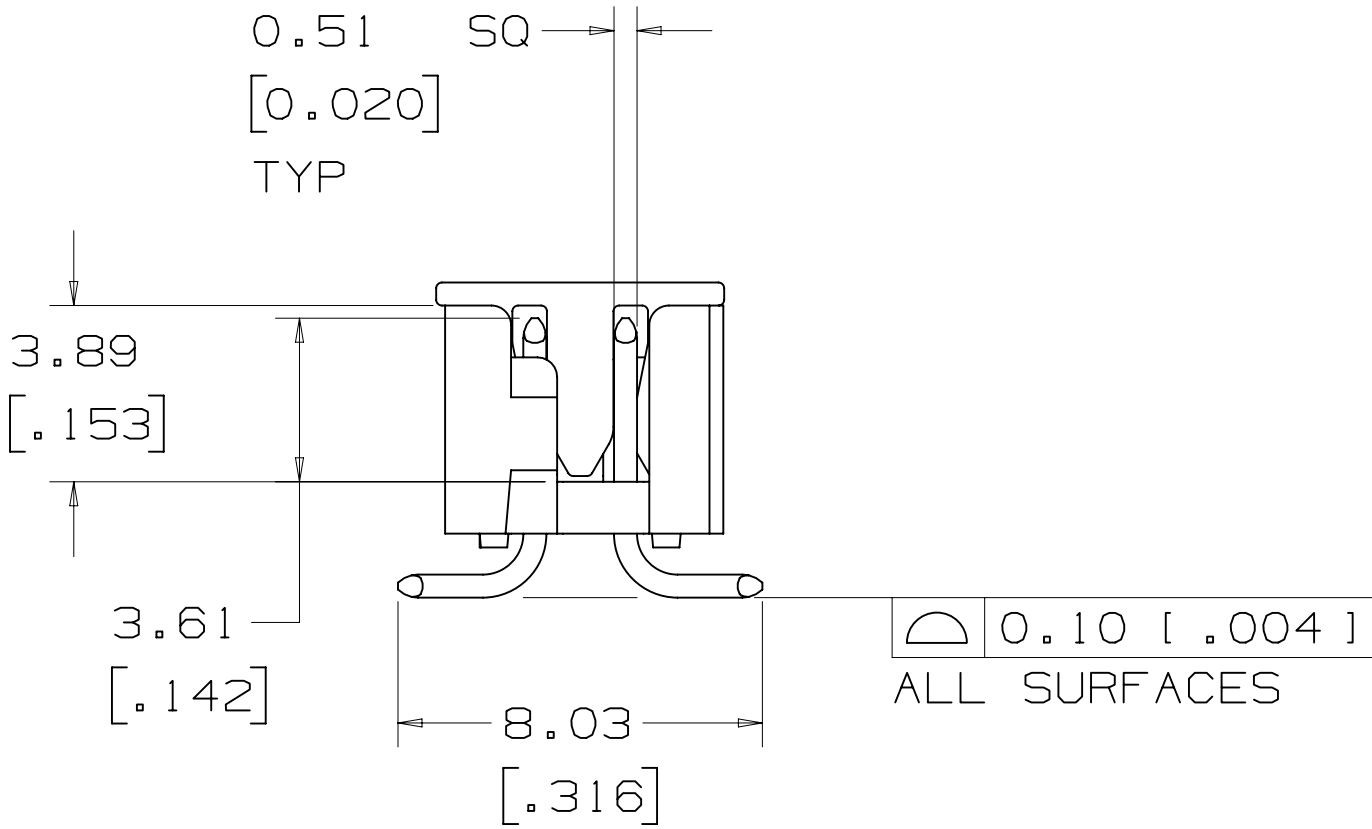
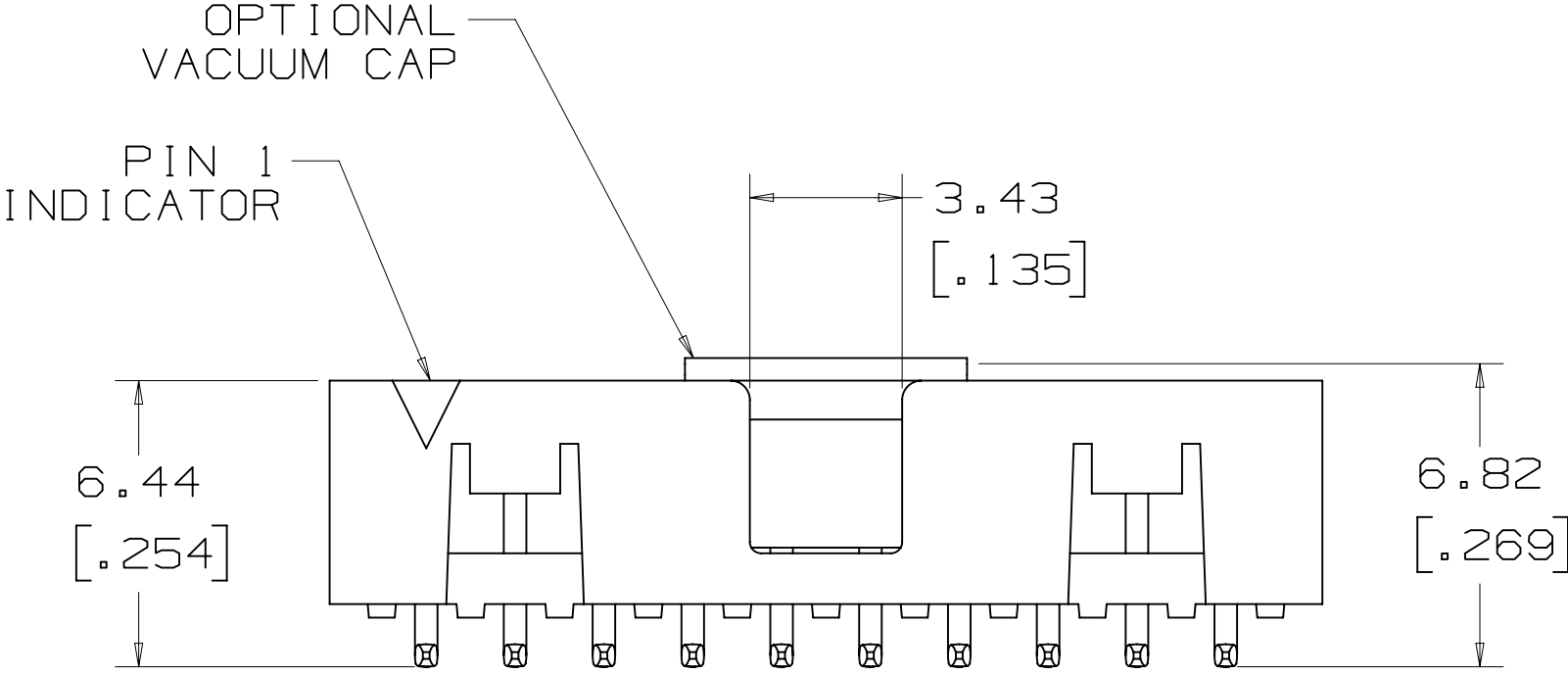
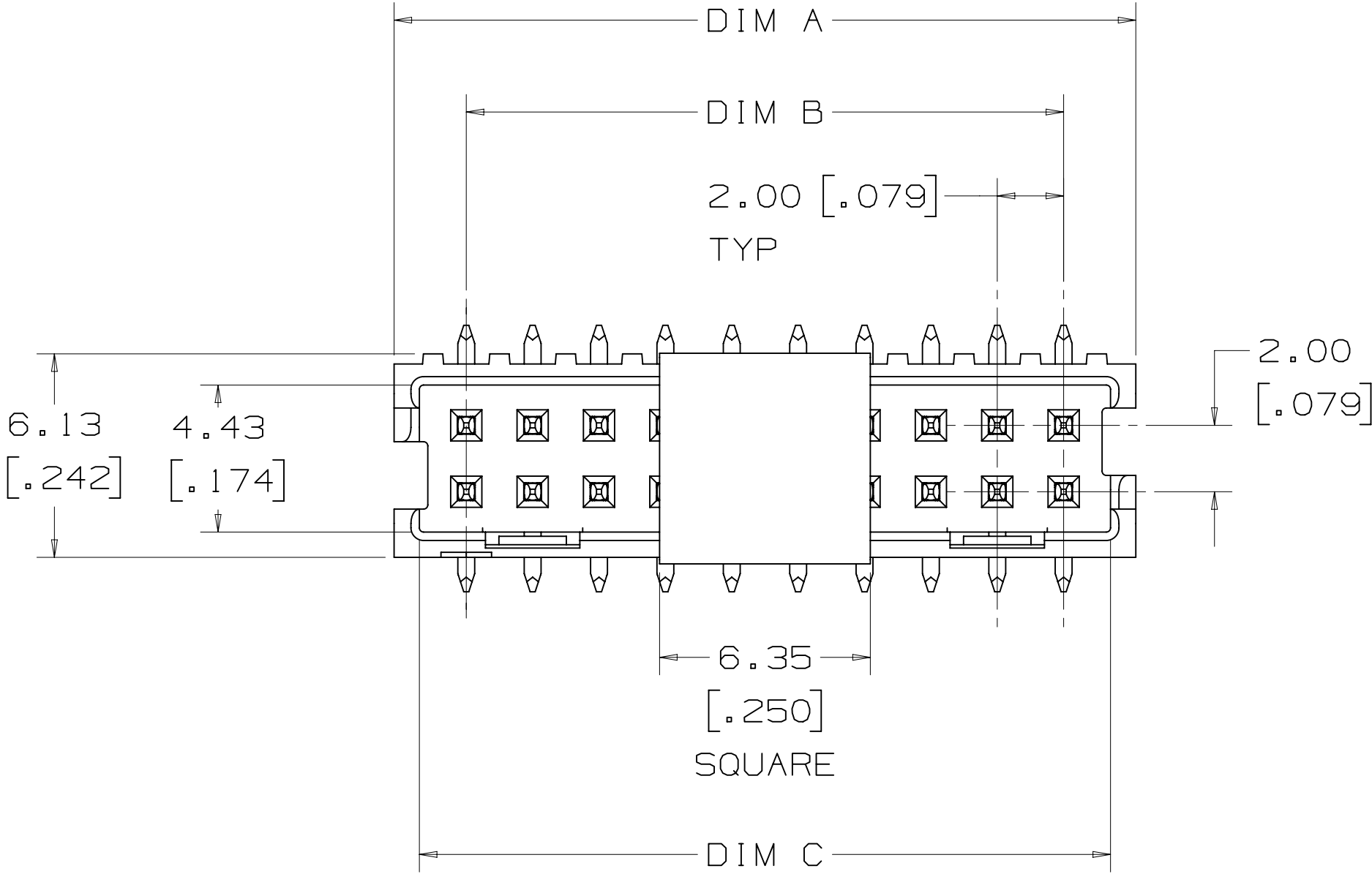
SINGLE FRICTION LATCH
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY

REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

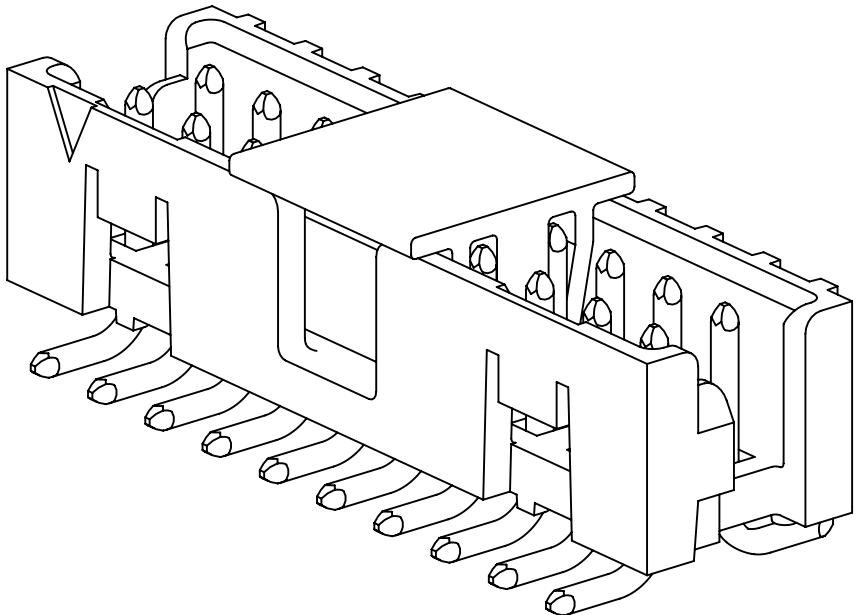
METRIC [ENGLISH]

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DISTANCE		DISTANCE		DRFT	ECO	DATE		DATE	DATE
L. SCHMIDT		JUL 29, 2010		DRFT	ECO	JUL 29, 2010		DATE	DATE
DIVISION		DIVISION CODE		CHKD	ECO	APPROVAL		DATE	DATE
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		INCHES		MILLIMETERS	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MAX SURFACE ROUGHNESS		125 / ALL SURFACES		MARKED ONLY	
ANGLES ±1°		ANGLES ±1°		CAGE NUMBER		DRAWING NO.		REV.	
125 / ALL SURFACES		MARKED ONLY		D		78-5100-2359-7		A	
MODEL		DET		LISTS		YES		NO	
SHT 2 OF 4		SHT 2 OF 4		SHT 2 OF 4		SHT 2 OF 4		SHT 2 OF 4	

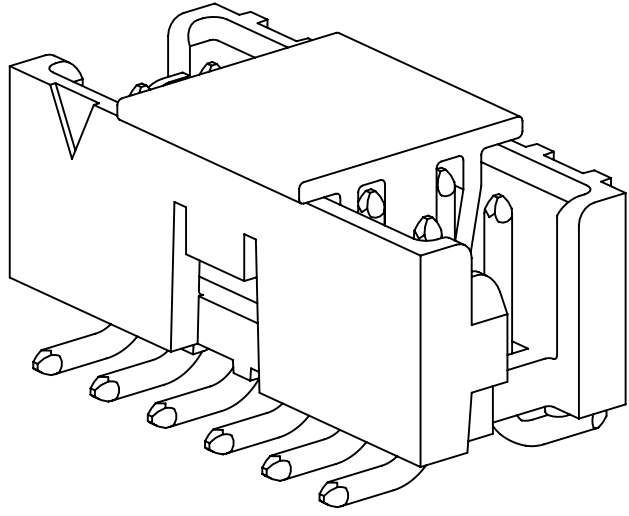
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



POLARIZATION SLOT
SURFACE MOUNT HEADER
6-12 POSITIONS ONLY



POLARIZATION SLOT AND
DUAL FRICTION LATCHES
SURFACE MOUNT HEADER
14-50 POSITIONS



SINGLE FRICTION LATCH
SURFACE MOUNT HEADER
6-12 POSITIONS ONLY

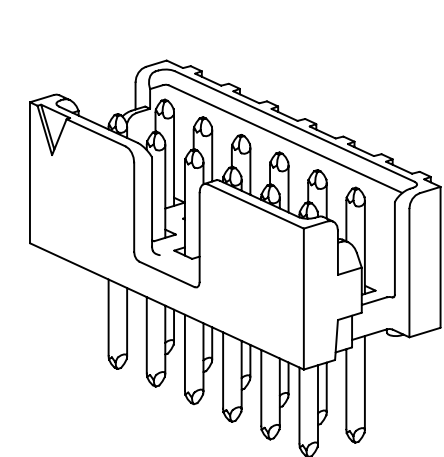
REFERENCE TABLE ON SHEET 4
FOR AVAILABLE POSITIONS

METRIC [ENGLISH]

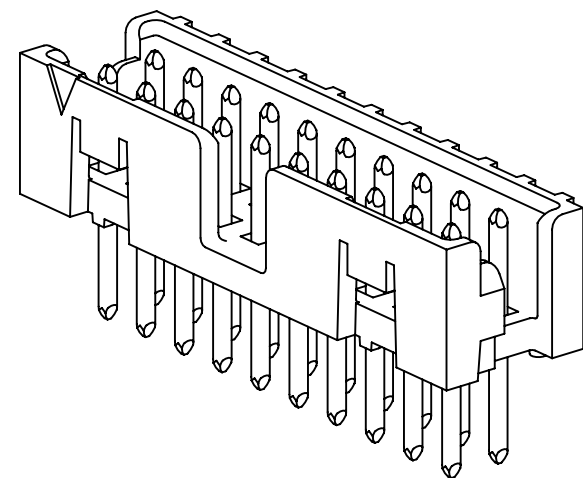
DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DISTANCE		SCALE		DATE		DATE		DATE	
L. SCHMIDT		JUL 29, 2010		MFG		JUL 29, 2010		MFG	
CHKD		DATE		APPROVAL		DATE		DATE	
DIVISION		DIVISION CODE		S. FELDMAN		AUG 09, 2010		AUG 09, 2010	
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		INCHES		MILLIMETERS	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MAX SURFACE ROUGHNESS		125/		ALL SURFACES	
X MARKED ONLY		ANGLES ±1°		CAGE NUMBER		DRAWING NO.		REV.	
125/		X MARKED ONLY		D		78-5100-2359-7		A	
MODEL		DET		LISTS		YES		NO	
SHT 3 OF 4									

3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

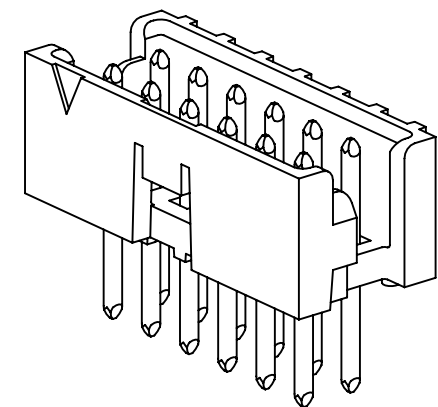
STANDARD LENGTH HEADERS
ARE AVAILABLE



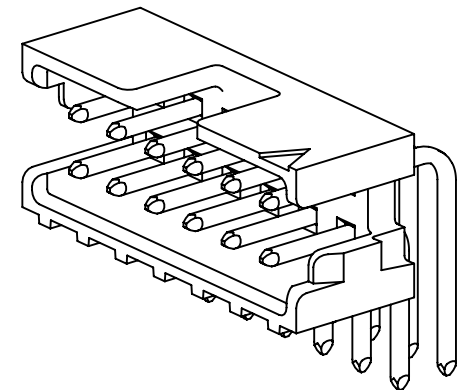
STANDARD LENGTH,
POLARIZATION SLOT,
VERTICAL HEADER
6-12 POSITIONS ONLY



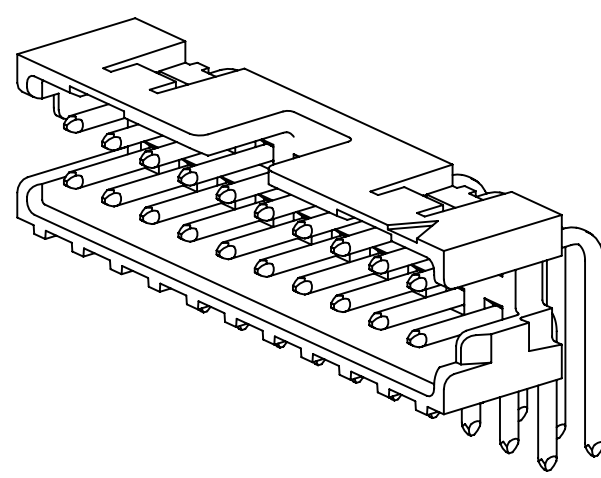
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
VERTICAL HEADER
14-50 POSITIONS



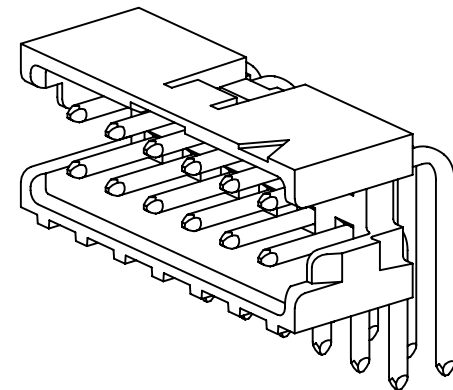
STANDARD LENGTH,
SINGLE FRICTION LATCH,
VERTICAL HEADER
6-12 POSITIONS



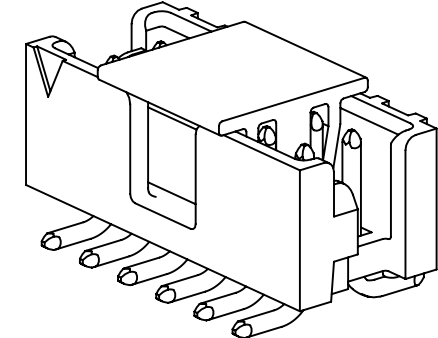
STANDARD LENGTH,
POLARIZATION SLOT,
RIGHT ANGLE HEADER
6-12 POSITIONS



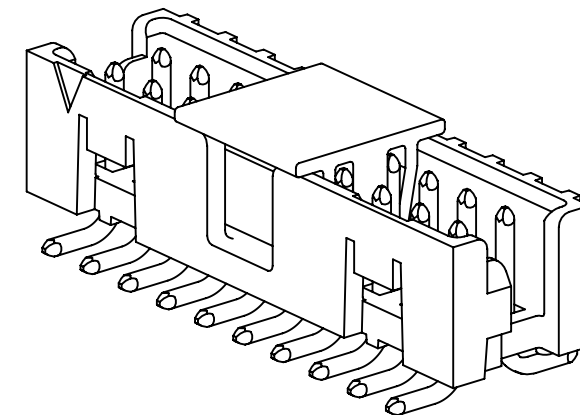
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
RIGHT ANGLE HEADER
14-50 POSITIONS



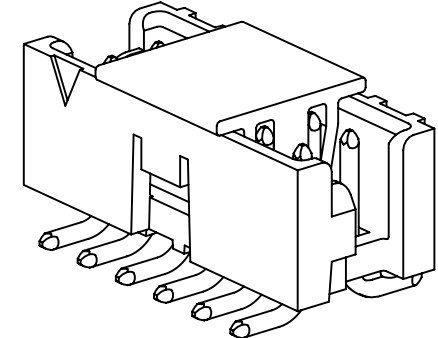
STANDARD LENGTH,
SINGLE FRICTION LATCH,
RIGHT ANGLE HEADER
6-12 POSITIONS



STANDARD LENGTH,
POLARIZATION SLOT,
SURFACE MOUNT HEADER
6-12 POSITIONS



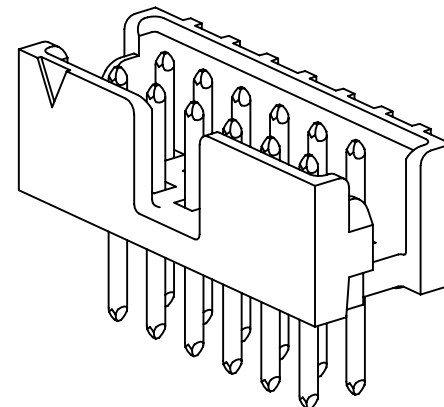
STANDARD LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
SURFACE MOUNT HEADER
14-50 POSITIONS



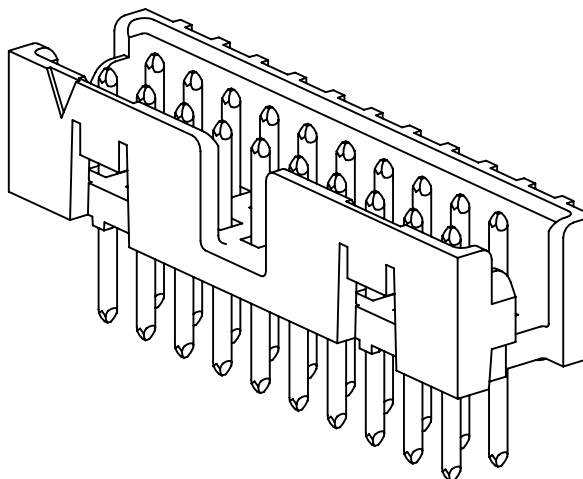
STANDARD LENGTH,
SINGLE FRICTION LATCH,
SURFACE MOUNT HEADER
6-12 POSITIONS

3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Extended Length 4

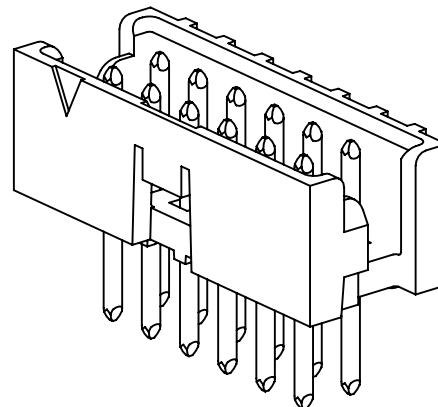
CALL 3M INTERCONNECT SOLUTIONS
AT 800-225-5373 FOR AVAILABILITY
OF EXTENDED LENGTH HEADERS



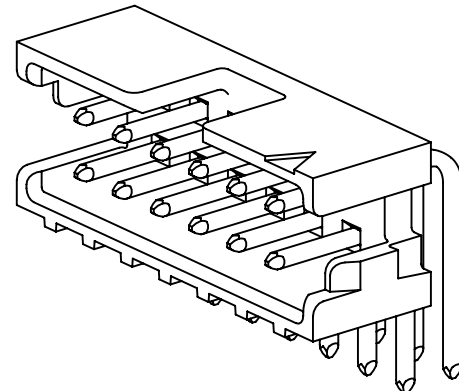
EXTENDED LENGTH,
POLARIZATION SLOT,
VERTICAL HEADER
6-12 POSITIONS



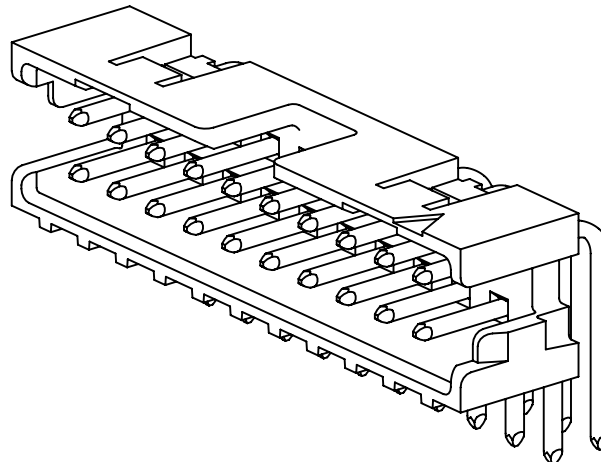
EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
VERTICAL HEADER
14-50 POSITIONS



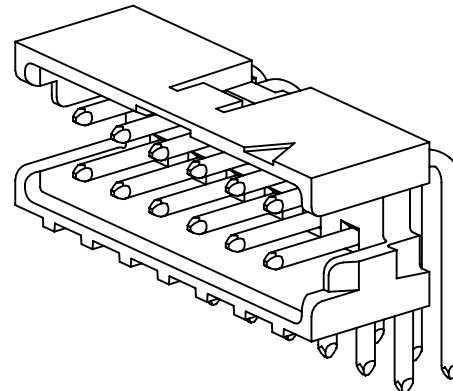
EXTENDED LENGTH,
SINGLE FRICTION LATCH,
VERTICAL HEADER
6-12 POSITIONS



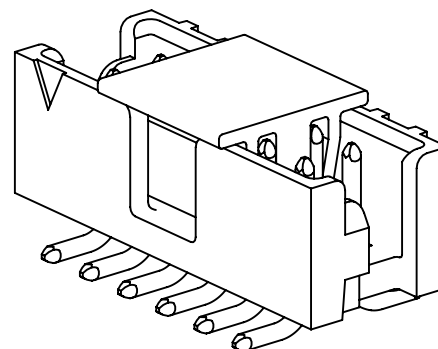
EXTENDED LENGTH,
POLARIZATION SLOT,
RIGHT ANGLE HEADER
6-12 POSITIONS



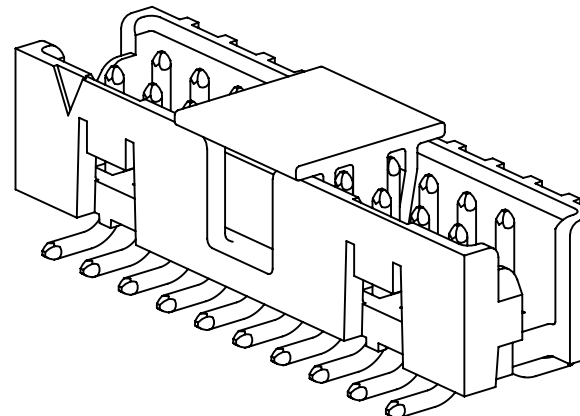
EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
RIGHT ANGLE HEADER
14-50 POSITIONS



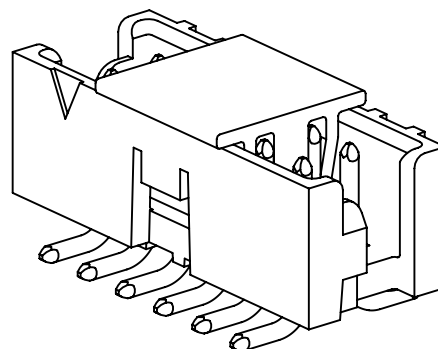
EXTENDED LENGTH,
SINGLE FRICTION LATCH,
RIGHT ANGLE HEADER
6-12 POSITIONS



EXTENDED LENGTH,
POLARIZATION SLOT,
SURFACE MOUNT HEADER
6-12 POSITIONS



EXTENDED LENGTH,
POLARIZATION SLOT,
DUAL FRICTION LATCHES,
SURFACE MOUNT HEADER
14-50 POSITIONS



EXTENDED LENGTH,
SINGLE FRICTION LATCH,
SURFACE MOUNT HEADER
6-12 POSITIONS

ORDERING INFORMATION

TIER 1 - BEST
1591XX-XXXX

TIER 1 = BEST 0.76 μ m
[30 μ in] GOLD

POSITION COUNT (SEE TABLE)

PART CONFIGURATION
2 = VERTICAL SMT
5 = RIGHT ANGLE THRU HOLE
6 = VERTICAL THRU HOLE

BODY LENGTH
0 = STANDARD LENGTH
(MATES TO 158 SERIES)
1 = EXTENDED LENGTH
(MATES TO 870 SERIES)

CONTACT TAIL LENGTH
2 = 2.84 mm [.112]
3 = 3.94 mm [.155]

POLARIZATION/LATCHING
0 = POLARIZATION SLOT AND
DUAL FRICTION LATCHES
(14-50 POSITIONS ONLY)
1 = POLARIZATION SLOT
(6-12 POSITIONS ONLY)
2 = SINGLE FRICTION LATCH
(6-12 POSITIONS ONLY)

TIER 2 - BETTER
1592XX-XXXX

TIER 2 = BETTER 0.38 μ m
[15 μ in] GOLD

POSITION COUNT (SEE TABLE)

PART CONFIGURATION
2 = VERTICAL SMT
5 = RIGHT ANGLE THRU HOLE
6 = VERTICAL THRU HOLE

BODY LENGTH
0 = STANDARD LENGTH
(MATES TO 158 SERIES)
1 = EXTENDED LENGTH
(MATES TO 870 SERIES)

CONTACT TAIL LENGTH
2 = 2.84 mm [.112]
3 = 3.94 mm [.155]

POLARIZATION/LATCHING
0 = POLARIZATION SLOT AND
DUAL FRICTION LATCHES
(14-50 POSITIONS ONLY)
1 = POLARIZATION SLOT
(6-12 POSITIONS ONLY)
2 = SINGLE FRICTION LATCH
(6-12 POSITIONS ONLY)

NUMBER OF POSITIONS	SHROUDED BOX HEADER						
	DIM A		DIM B	DIM C		DIM D	
	STANDARD	EXTENDED		STANDARD	EXTENDED		
6	8.35 [.329]	9.52 [.375]	4.00 [.157]	6.83 [.269]	7.99 [.315]	2.84 [.112]	3.94 [.155]
8	10.35 [.407]	11.52 [.453]	6.00 [.236]	8.83 [.347]	9.99 [.393]	2.84 [.112]	3.94 [.155]
10	12.35 [.486]	13.52 [.532]	8.00 [.315]	10.83 [.426]	11.99 [.472]	2.84 [.112]	3.94 [.155]
12	14.35 [.565]	15.52 [.611]	10.00 [.394]	12.83 [.505]	13.99 [.551]	2.84 [.112]	3.94 [.155]
14	16.36 [.644]	17.52 [.690]	12.00 [.472]	14.83 [.584]	15.99 [.630]	2.84 [.112]	3.94 [.155]
16	18.35 [.722]	19.52 [.768]	14.00 [.551]	16.83 [.662]	17.99 [.708]	2.84 [.112]	3.94 [.155]
20	22.35 [.880]	23.52 [.926]	18.00 [.709]	20.83 [.820]	21.99 [.866]	2.84 [.112]	3.94 [.155]
22	24.35 [.959]	25.52 [1.005]	20.00 [.787]	22.83 [.899]	23.99 [.945]	2.84 [.112]	3.94 [.155]
24	26.35 [1.037]	27.52 [1.083]	22.00 [.866]	24.83 [.977]	25.99 [1.023]	2.84 [.112]	3.94 [.155]
26	28.35 [1.116]	29.52 [1.162]	24.00 [.945]	26.83 [1.056]	27.99 [1.102]	2.84 [.112]	3.94 [.155]
30	32.35 [1.274]	33.52 [1.320]	28.00 [1.102]	30.83 [1.214]	31.99 [1.260]	2.84 [.112]	3.94 [.155]
34	36.35 [1.431]	37.52 [1.477]	32.00 [1.260]	34.83 [1.371]	35.99 [1.417]	2.84 [.112]	3.94 [.155]
40	42.35 [1.667]	43.52 [1.713]	38.00 [1.496]	40.83 [1.607]	41.99 [1.653]	2.84 [.112]	3.94 [.155]
44	46.35 [1.825]	47.52 [1.871]	42.00 [1.654]	44.83 [1.765]	45.99 [1.811]	2.84 [.112]	3.94 [.155]
50	52.35 [2.061]	53.52 [2.107]	48.00 [1.890]	50.83 [2.001]	51.99 [2.047]	2.84 [.112]	3.94 [.155]

METRIC [ENGLISH]

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
10 DISTRIBUTION CODES				DRFT	L. SCHMIDT	DATE	JUL 29, 2010	MFG	DATE
DIVISION		DIVISION CODE		CHKD		DATE		APPROV	DATE
								S. FELDMAN	AUG 09, 2010
DO NOT SCALE DRAWING	SCALE 4 1	TOLERANCES EXCEPT AS NOTED		3M Center St. Paul, MN 55144					
THIRD ANGLE PROJECTION		INCHES		© 3M COPYRIGHT 2010					
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		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.					
MAX SURFACE ROUGHNESS 125 / ALL SURFACES / MARKED ONLY		ANGLES ±1°		CAGE NUMBER		DRAWING NO.		REV.	
				D 78-5100-2359-7		A		A	
				MODEL		LISTS		YES NO SHT 4 OF 4	

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:

<u>159108-2022</u>	<u>159120-5102</u>	<u>159110-2022</u>	<u>159106-2012</u>	<u>159106-5012</u>	<u>159106-6012</u>	<u>159108-2012</u>	<u>159108-5012</u>
<u>159108-6012</u>	<u>159110-2012</u>	<u>159110-5012</u>	<u>159110-6012</u>	<u>159112-2012</u>	<u>159112-5012</u>	<u>159112-6012</u>	<u>159114-2002</u>
<u>159114-5002</u>	<u>159114-6002</u>	<u>159116-2002</u>	<u>159116-5002</u>	<u>159116-6002</u>	<u>159120-2002</u>	<u>159120-5002</u>	<u>159120-6002</u>
<u>159122-2002</u>	<u>159122-5002</u>	<u>159122-6002</u>	<u>159124-2002</u>	<u>159124-5002</u>	<u>159124-6002</u>	<u>159126-2002</u>	<u>159126-5002</u>
<u>159126-6002</u>	<u>159130-2002</u>	<u>159130-5002</u>	<u>159130-6002</u>	<u>159134-2002</u>	<u>159134-5002</u>	<u>159134-6002</u>	<u>159140-2002</u>
<u>159140-5002</u>	<u>159140-6002</u>	<u>159144-2002</u>	<u>159144-5002</u>	<u>159144-6002</u>	<u>159150-2002</u>	<u>159150-5002</u>	<u>159150-6002</u>
<u>159206-2012</u>	<u>159206-5012</u>	<u>159206-6012</u>	<u>159208-2012</u>	<u>159208-5012</u>	<u>159208-6012</u>	<u>159210-2012</u>	<u>159210-5012</u>
<u>159210-6012</u>	<u>159212-2012</u>	<u>159212-5012</u>	<u>159212-6012</u>	<u>159214-2002</u>	<u>159214-5002</u>	<u>159214-6002</u>	<u>159216-2002</u>
<u>159216-5002</u>	<u>159216-6002</u>	<u>159220-2002</u>	<u>159220-5002</u>	<u>159220-6002</u>	<u>159222-2002</u>	<u>159222-5002</u>	<u>159222-6002</u>
<u>159224-2002</u>	<u>159224-5002</u>	<u>159224-6002</u>	<u>159226-2002</u>	<u>159226-5002</u>	<u>159226-6002</u>	<u>159230-2002</u>	<u>159230-5002</u>
<u>159230-6002</u>	<u>159234-2002</u>	<u>159234-5002</u>	<u>159234-6002</u>	<u>159240-2002</u>	<u>159240-5002</u>	<u>159240-6002</u>	<u>159244-2002</u>
<u>159244-5002</u>	<u>159244-6002</u>	<u>159250-2002</u>	<u>159250-5002</u>	<u>159250-6002</u>	<u>159120-6102</u>	<u>159210-2112</u>	<u>159212-2022</u>
<u>159212-6022</u>	<u>159216-2102</u>	<u>159206-2022</u>	<u>159206-5022</u>				