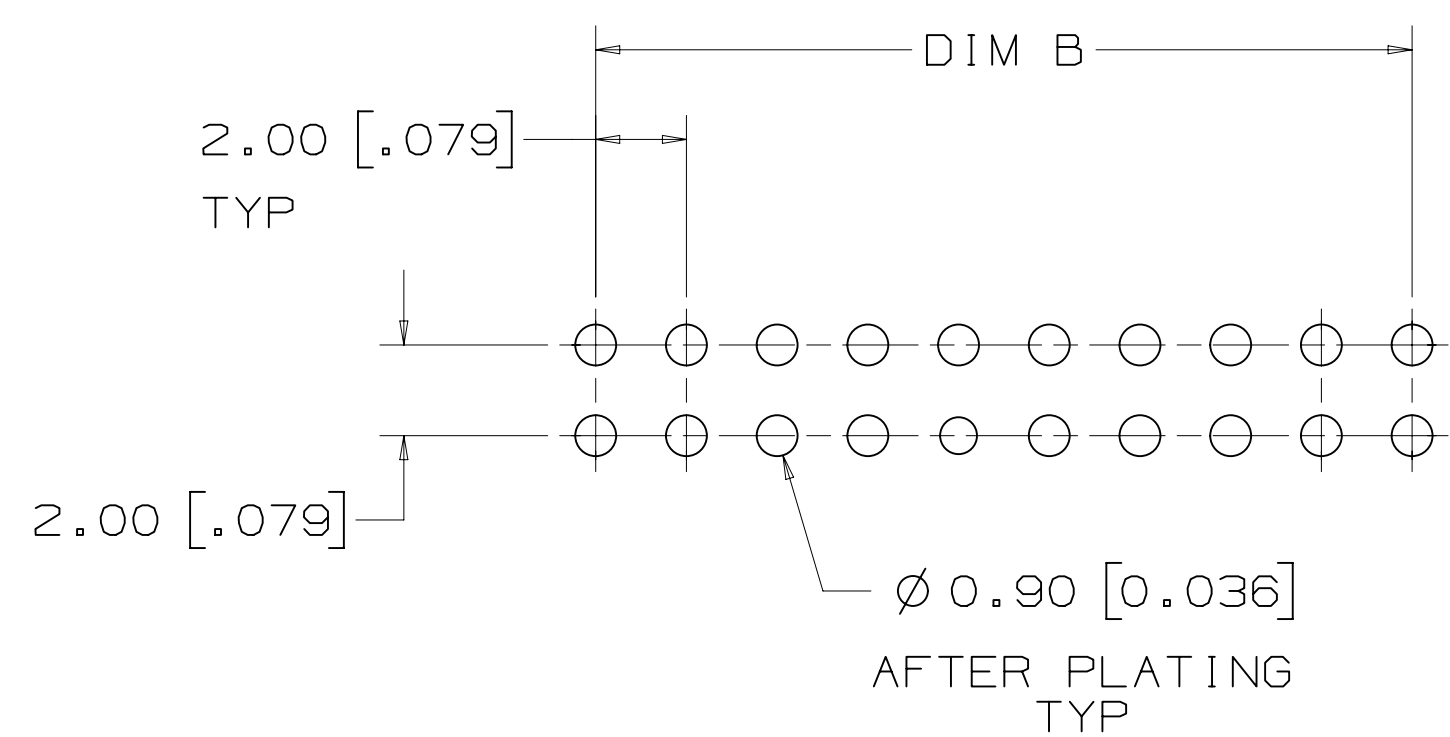
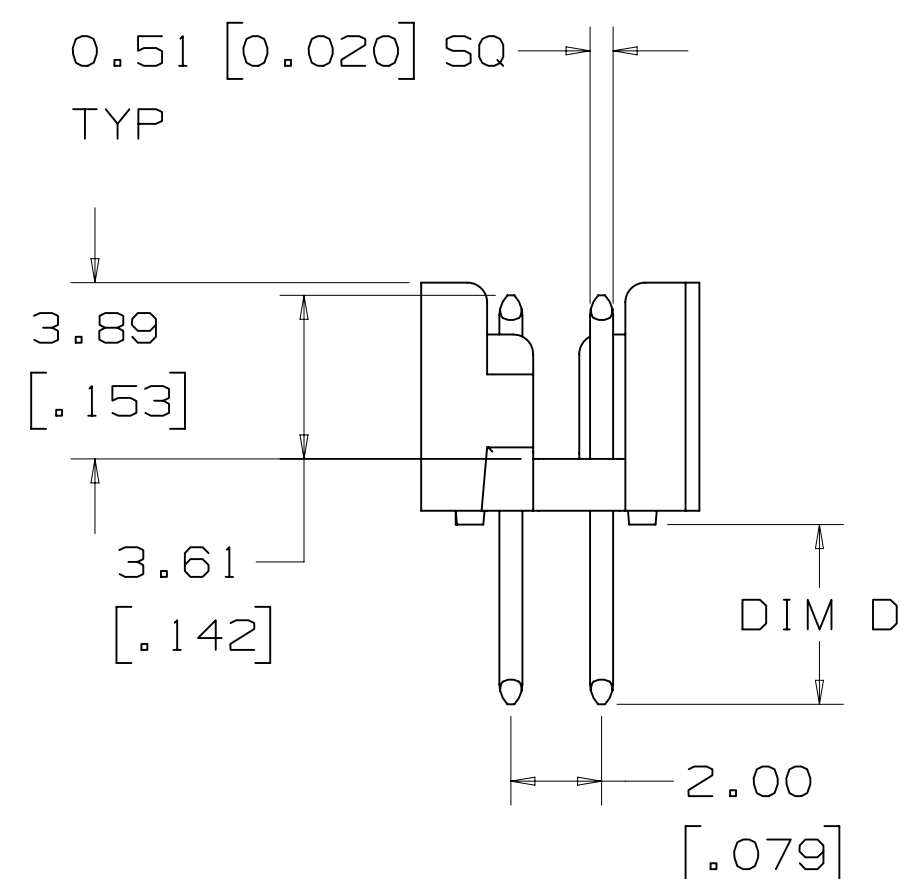


3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



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 TAIL POSITIONS AND
SOLDER TAIL LENGTHS

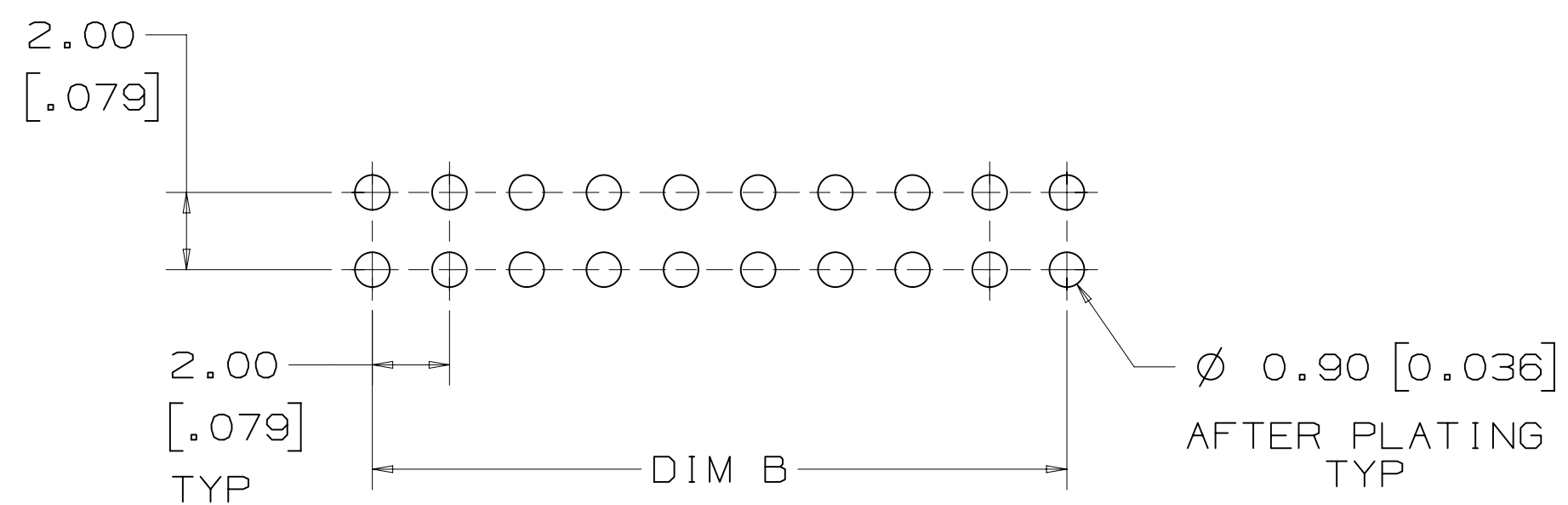
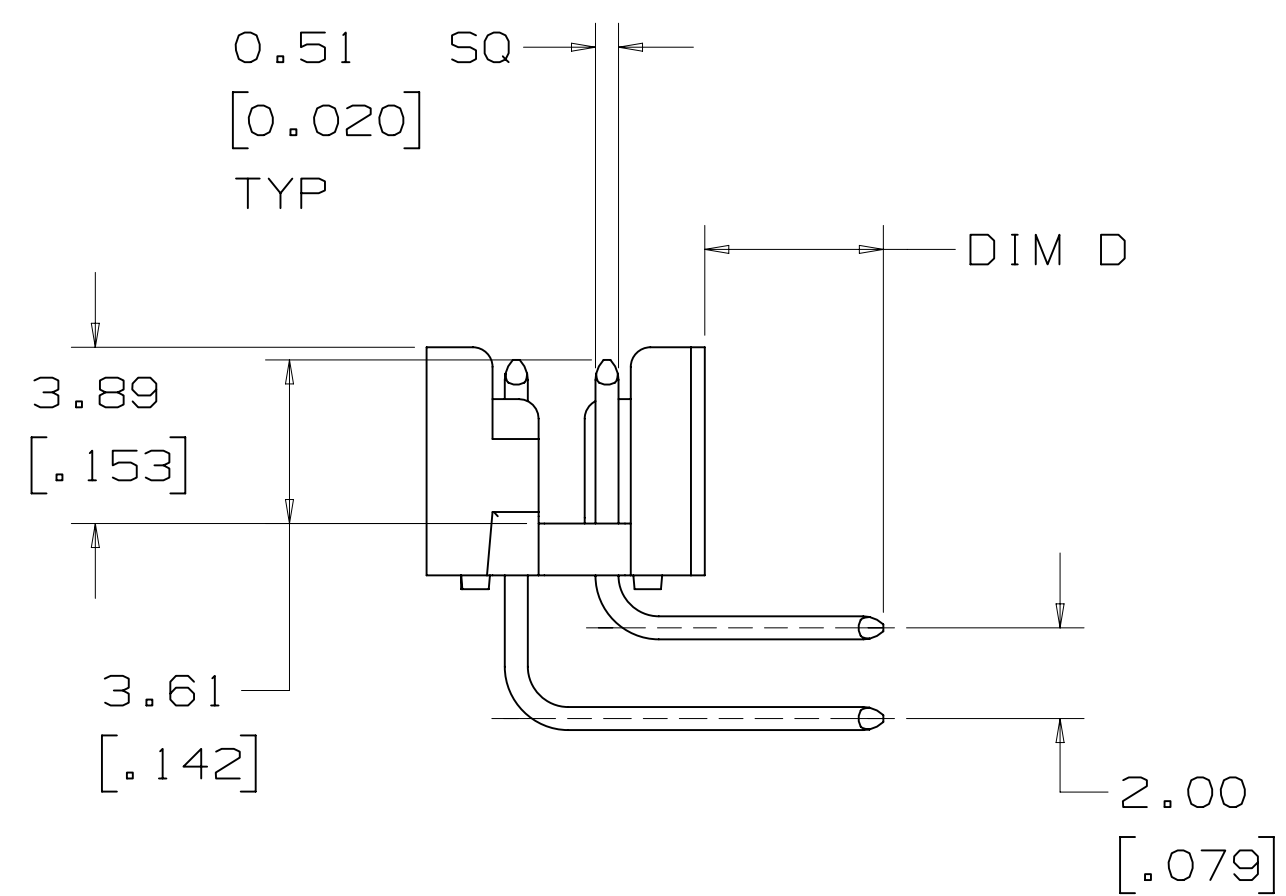
METRIC [ENGLISH]

NOTES

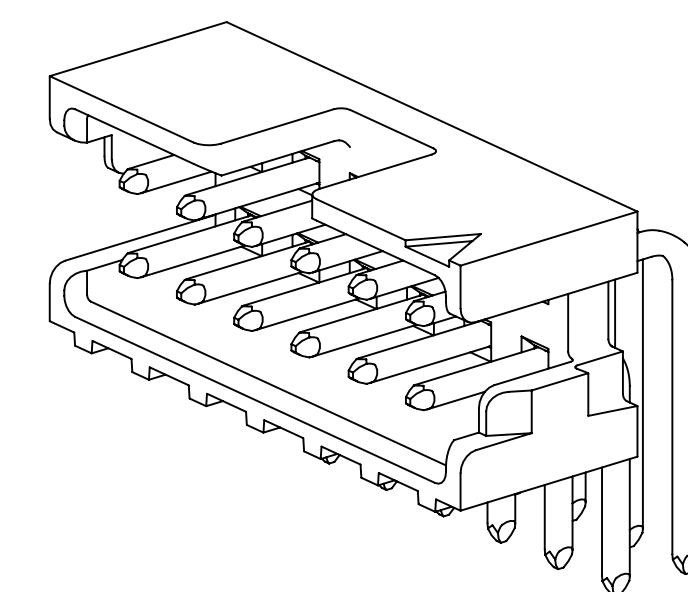
- MATERIAL:
BODY: HIGH TEMPERATURE
GLASS FILLED LCP, BLACK
UL94V-0
CONTACTS: COPPER ALLOY
- PLATING:
2.03-3.81 μm [80-150 μin]
NICKEL UNDERPLATE.
0.38 μm [15 μin] OR
0.76 μm [30 μin] AVG GOLD
ON WIPING AREA.
5.08 μm [200 μin] MIN
MATTE TIN ON SOLDER TAILS.
- STANDARD LENGTH HEADERS
MATE WITH 3M™ SOCKETS,
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														
DIVISION	DIVISION CODE	DATE	DATE	DATE	DATE	DATE														
		JUL 29, 2010																		
DO NOT SCALE DRAWING	SCALE 6/1	TOLERANCES EXCEPT AS NOTED																		
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 1994	<table border="1"> <tr> <th>TOLERANCES</th> <th>INCHES</th> <th>MILLIMETERS</th> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>.00</td> <td>.00</td> <td>.00</td> </tr> <tr> <td>.000</td> <td>.000</td> <td>.000</td> </tr> <tr> <td>.0000</td> <td>.0000</td> <td>.0000</td> </tr> </table>	TOLERANCES	INCHES	MILLIMETERS	0	0	0	.00	.00	.00	.000	.000	.000	.0000	.0000	.0000	TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES		
TOLERANCES	INCHES	MILLIMETERS																		
0	0	0																		
.00	.00	.00																		
.000	.000	.000																		
.0000	.0000	.0000																		
MAX SURFACE ROUGHNESS 125	<input type="checkbox"/> ALL SURFACES <input checked="" type="checkbox"/> MARKED ONLY	CAGE NUMBER D 78-5100-2359-7	DRAWING NO. 78-5100-2359-7	REV. A	MODEL SHT 1 OF 4															

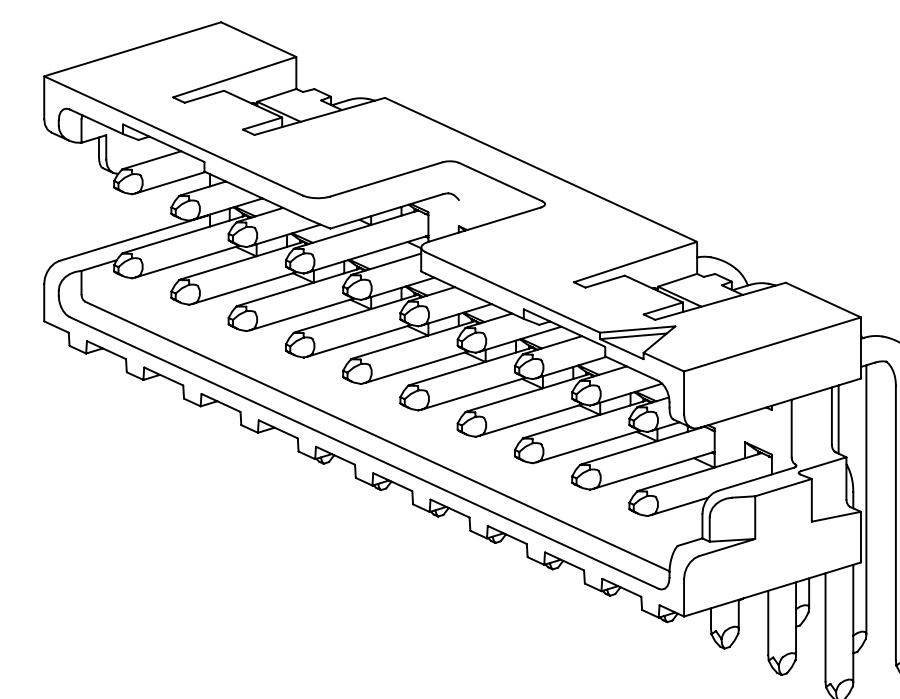
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



RECOMMENDED PCB HOLE PATTERN
TOLERANCE = ±0.05 [.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
DIVISION		DIVISION CODE		DATE		
DO NOT SCALE DRAWING		SCALE	TOLERANCES EXCEPT AS NOTED		INCHES	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		
MAX SURFACE ROUGHNESS		CAGE NUMBER		DRAWING NO.		
125		D 78-5100-2359-7		REV. A		
ALL SURFACES MARKED ONLY		MODEL		SHT 2 OF 4		

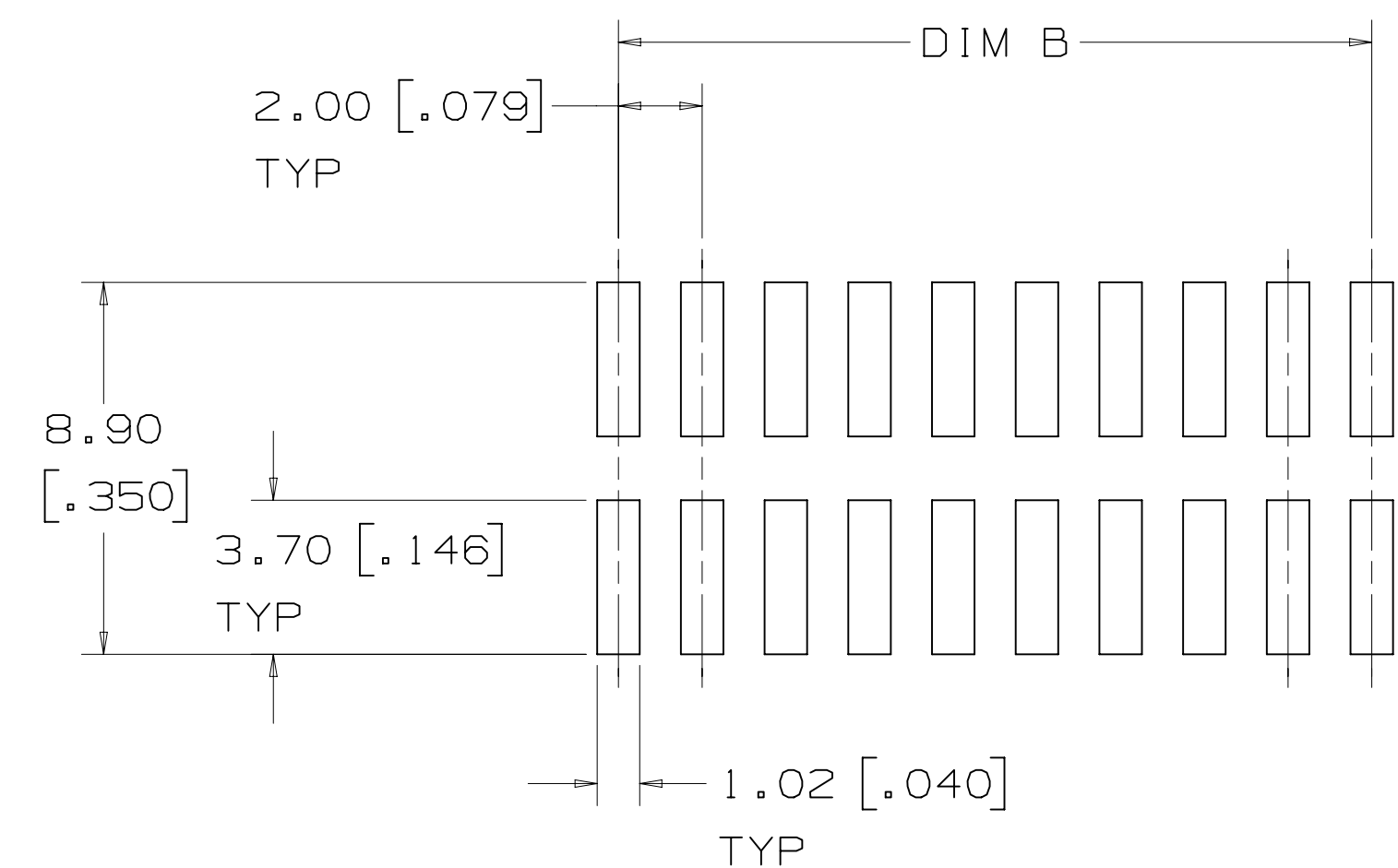
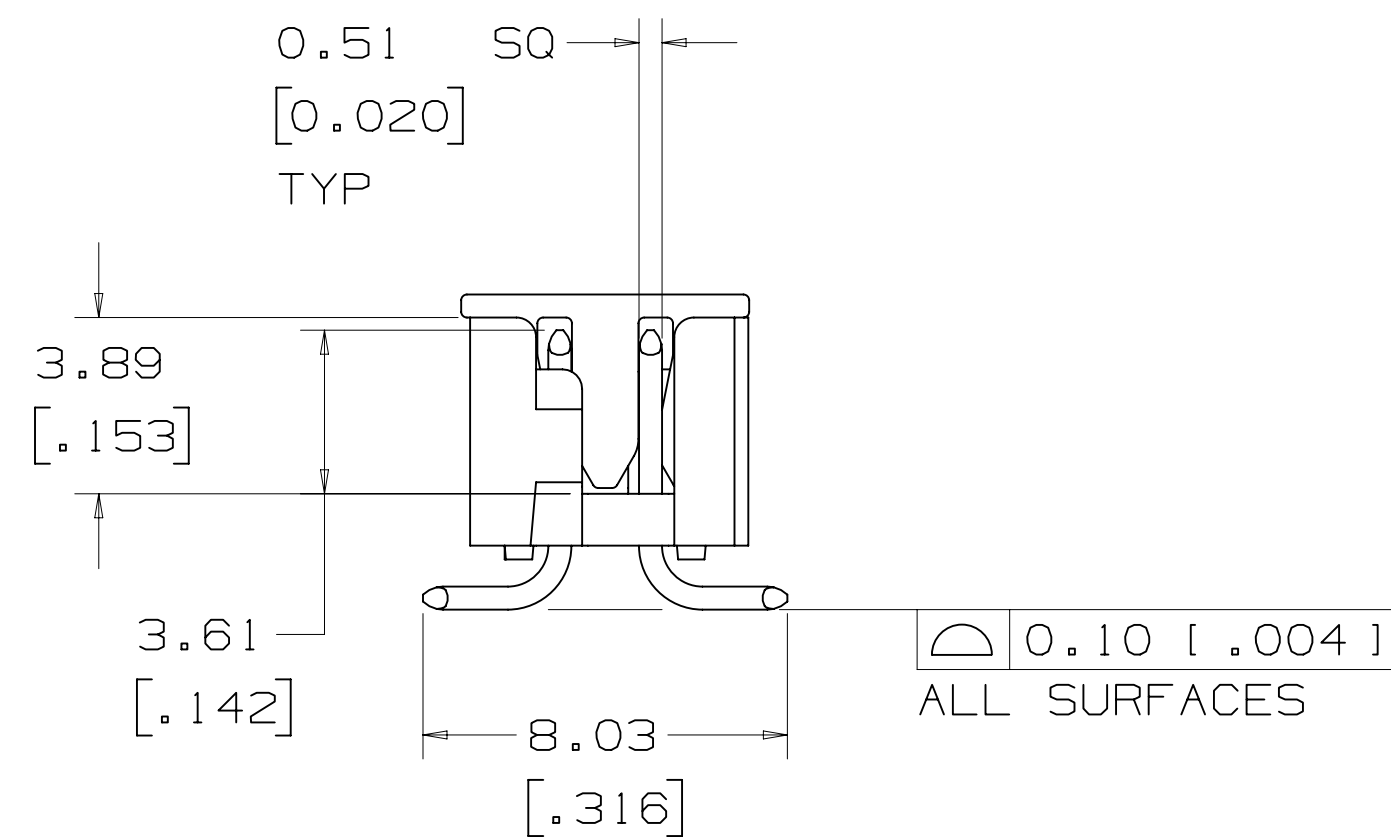
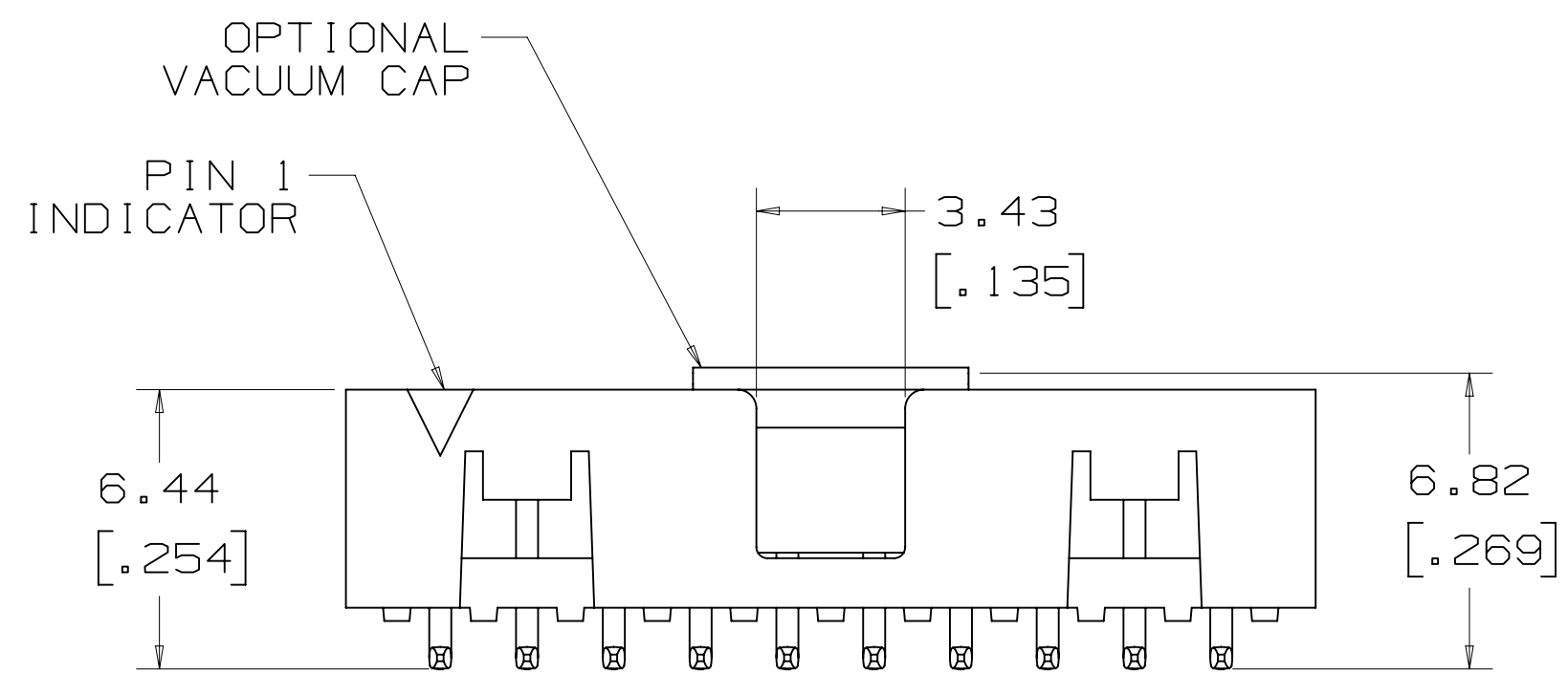
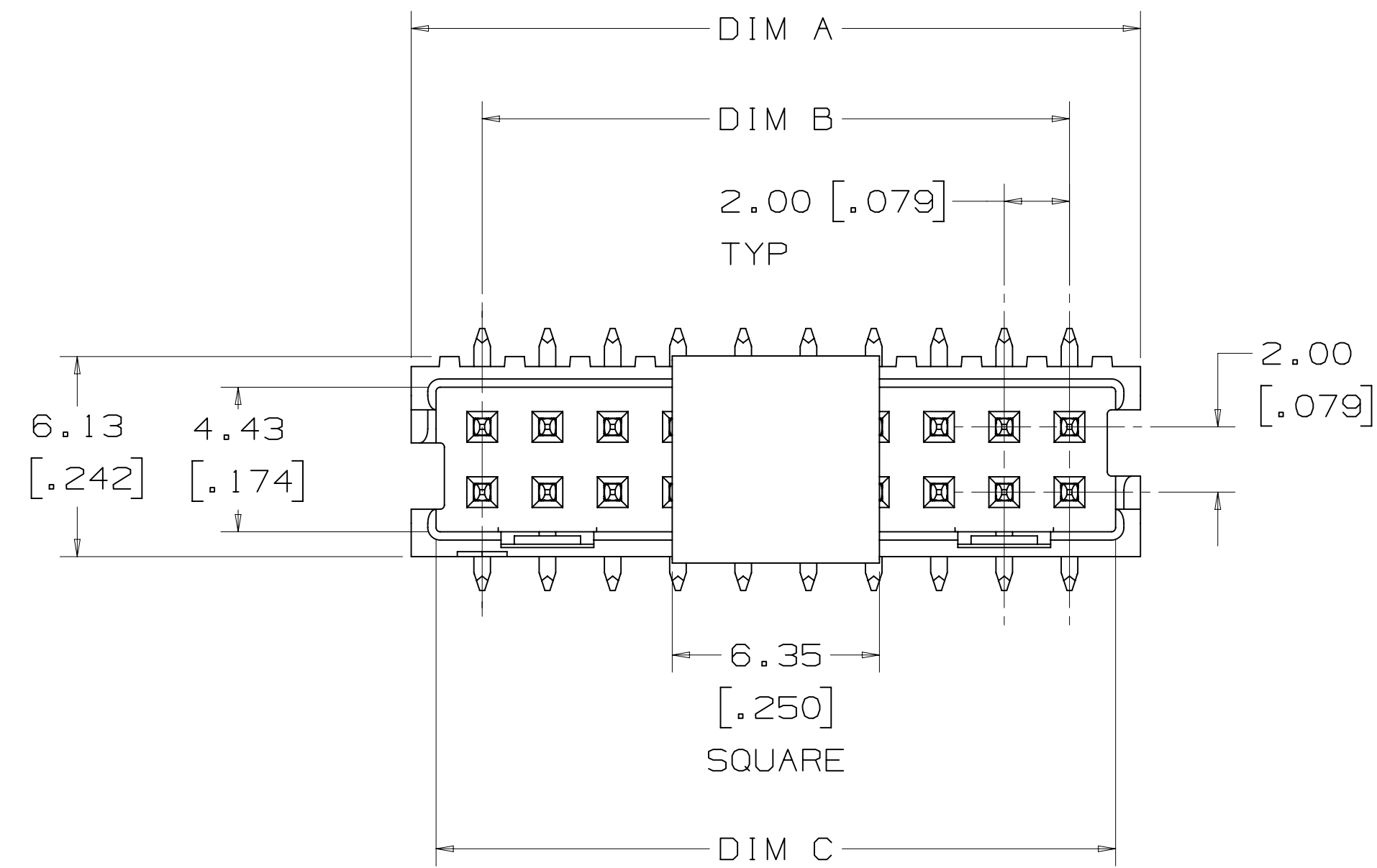
A	30741	OCT 28, 2010	LDS	SF
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	L. SCHMIDT	DATE	MFG	DATE
CHKD		JUL 29, 2010		
			APPV	DATE
			S FELDMAN	AUG 09, 2010

© 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.

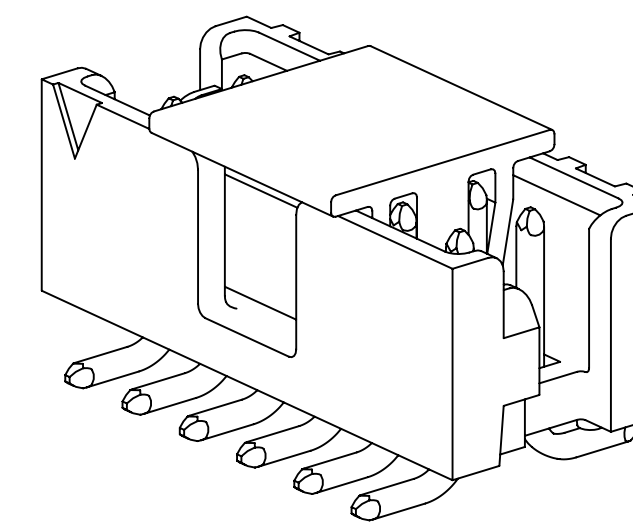
TITLE
3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES

CAGE NUMBER D 78-5100-2359-7
REV. A
SHT 2 OF 4

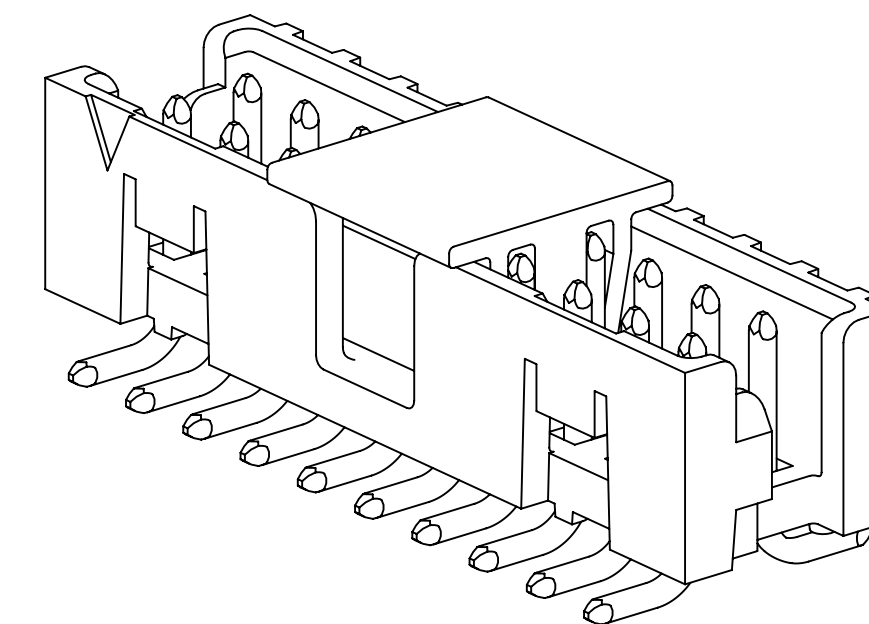
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



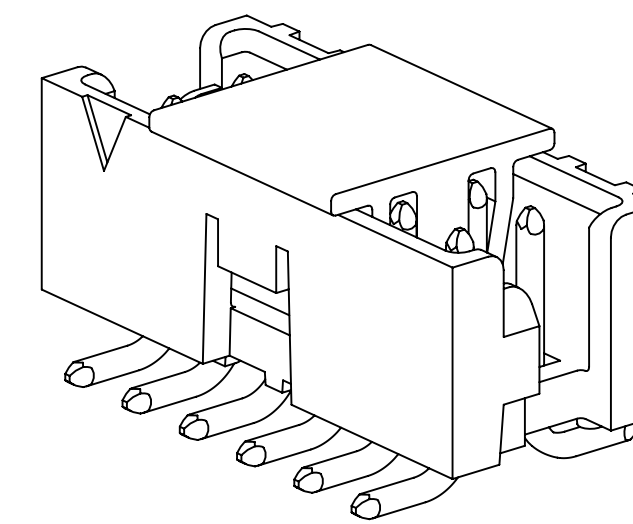
RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [0.003]



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)

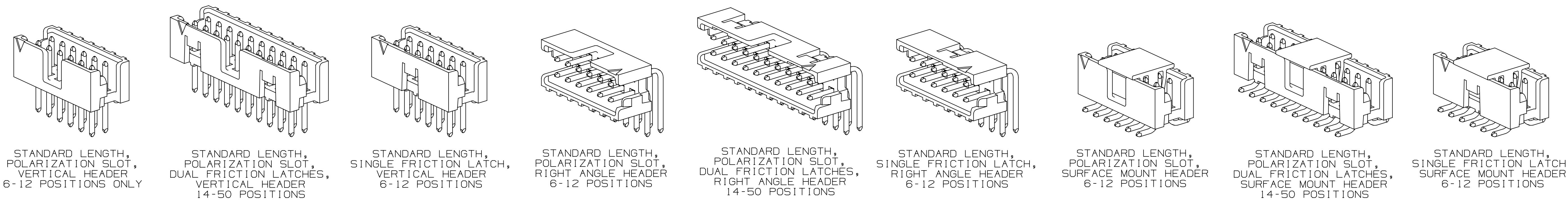
DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DIVISION		DIVISION CODE		DATE		
DO NOT SCALE DRAWING		SCALE 4/1		TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		MILLIMETERS		INCHES		
INTERPRET PER ASME Y14.5 - 1994		0 ±		.00 ±		
MAX SURFACE ROUGHNESS		.00 ± 0.13		.000 ±		
125 ALL SURFACES		.000 ±		.0000 ±		
MARKED ONLY		ANGLES ±1°		TITLE		
				3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES		
		CAGE NUMBER		DRAWING NO.		REV.
		D78-5100-2359-7		A		
		MODEL		SHT 3 OF 4		

DRAWING NUMBER 78-5100-2359-7

REVISION A

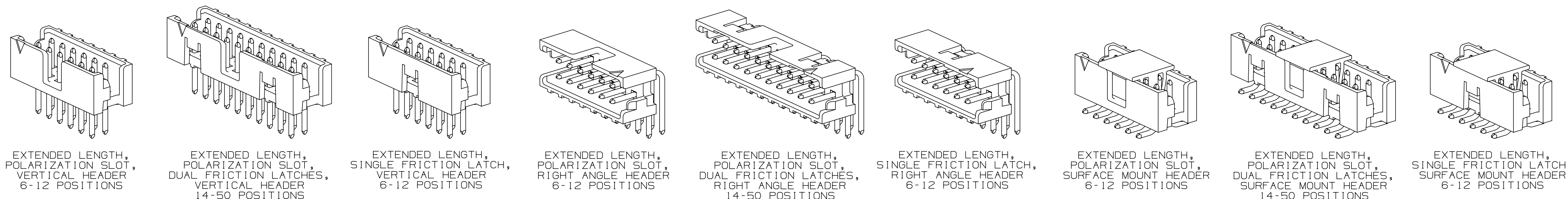
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

STANDARD LENGTH HEADERS ARE AVAILABLE



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



ORDERING INFORMATION

TIER 1 - BEST
 1591XX-XXXX

TIER 1 = BEST 0.76 μ m [30 μ in] GOLD

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)

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)

TIER 2 - BETTER
 1592XX-XXXX

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

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)

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)

NUMBER OF POSITIONS	SHROUDED BOX HEADER						DIM D	
	DIM A		DIM B	DIM C				
	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
				INITIAL RELEASE		
DISTRICT CODES		DRP	DATE	MFG	DATE	
		L. SCHMIDT	JUL 29, 2010			
DIVISION	DIVISION CODE	CHKD	DATE	APPV	DATE	
		S FELDMAN	AUG 09, 2010			
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED				
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 1994	INCHES .00 ± .000 ± .0000 ±		MILLIMETERS 0 ± .00 ±0.13 .000 ±		
MAX SURFACE ROUGHNESS 125	ALL SURFACES MARKED ONLY	ANGLS ±1°		TITLE 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES		
		CAGE NUMBER	SIZE	DRAWING NO.	REV.	
		D		78-5100-2359-7	A	
		MODEL				

78-5100-2359-7 DRAWING NUMBER

A

SHT 4 OF 4

Mouser Electronics

Authorized Distributor

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

3M:

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