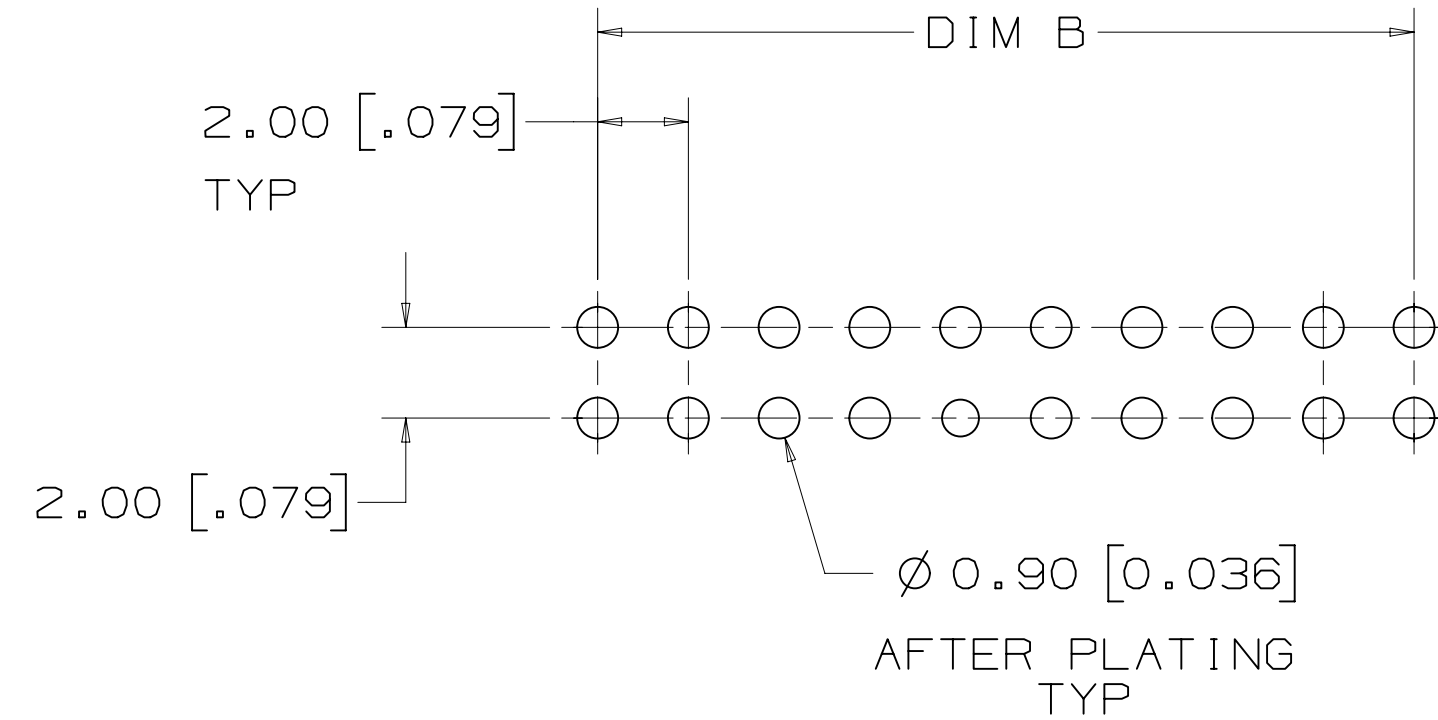
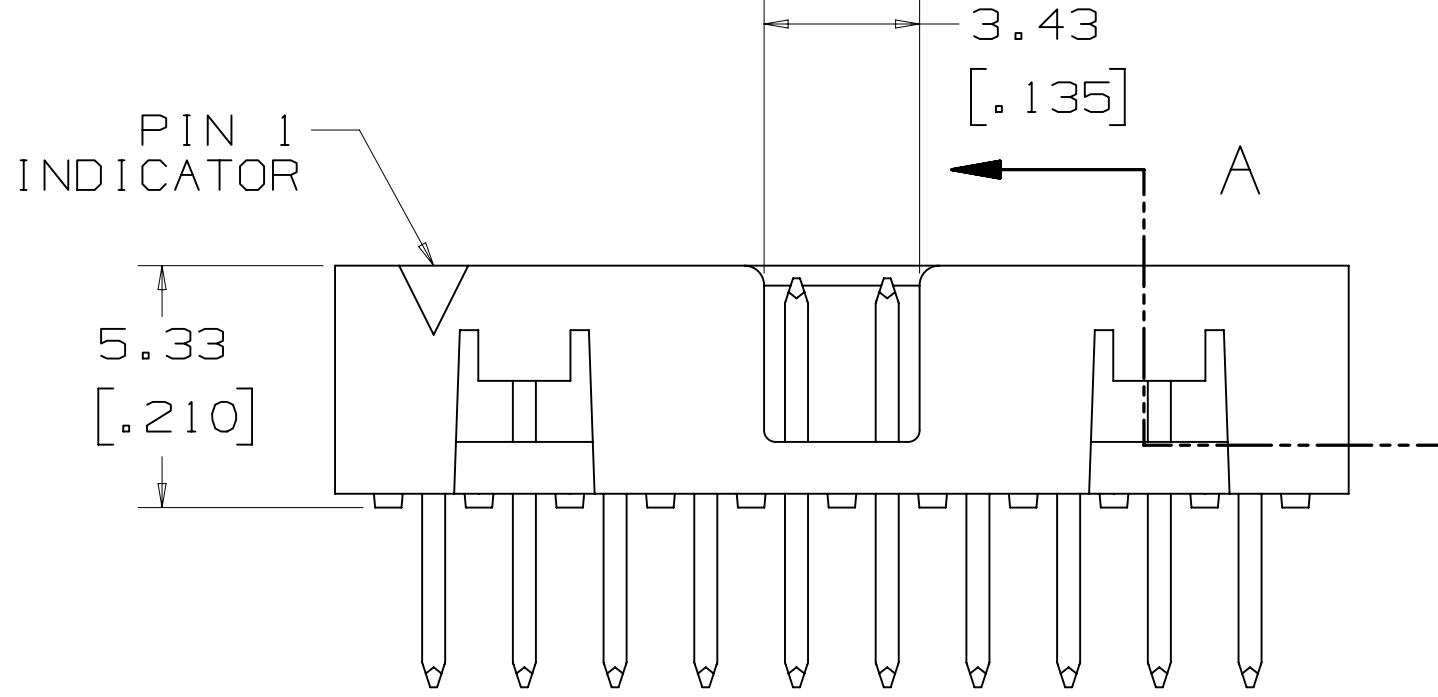
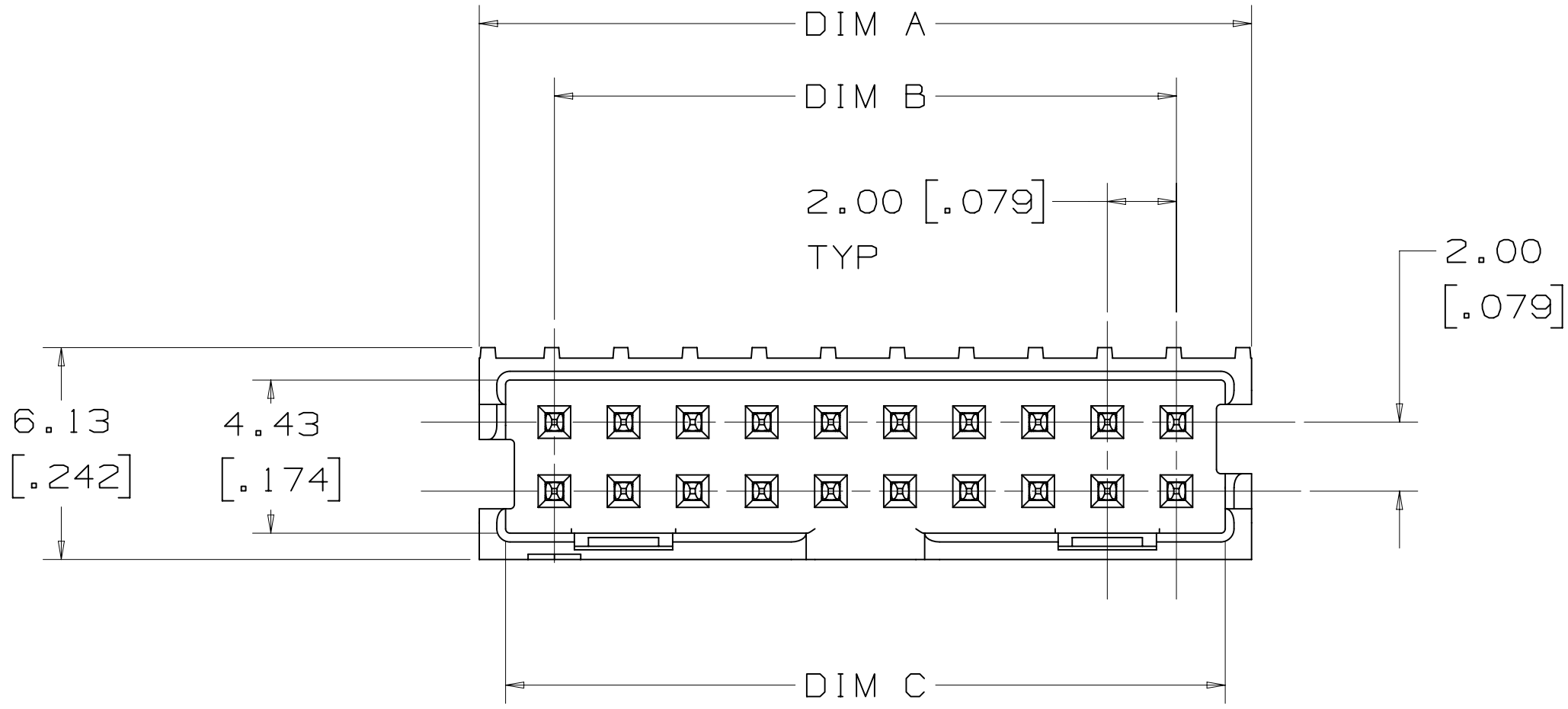
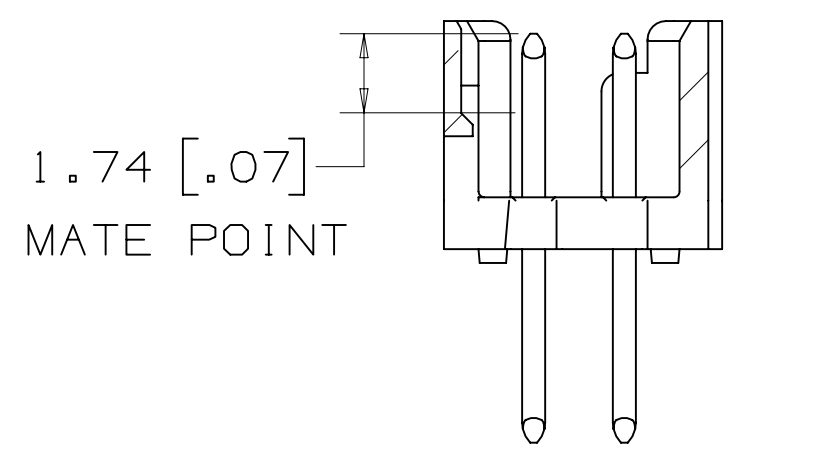
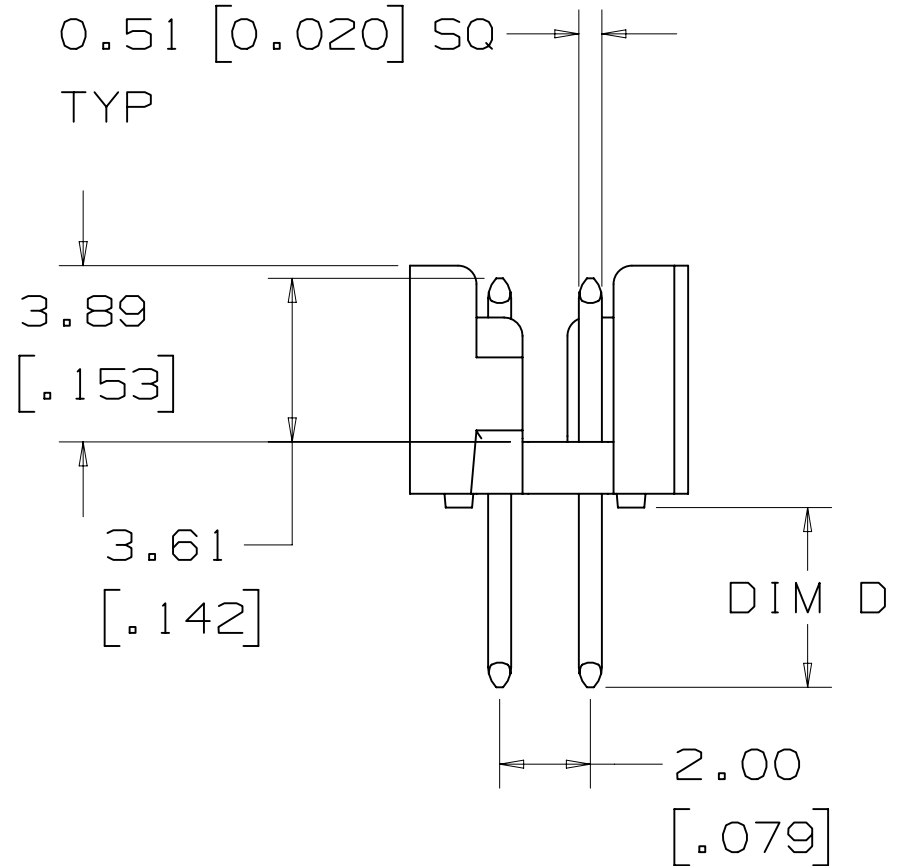


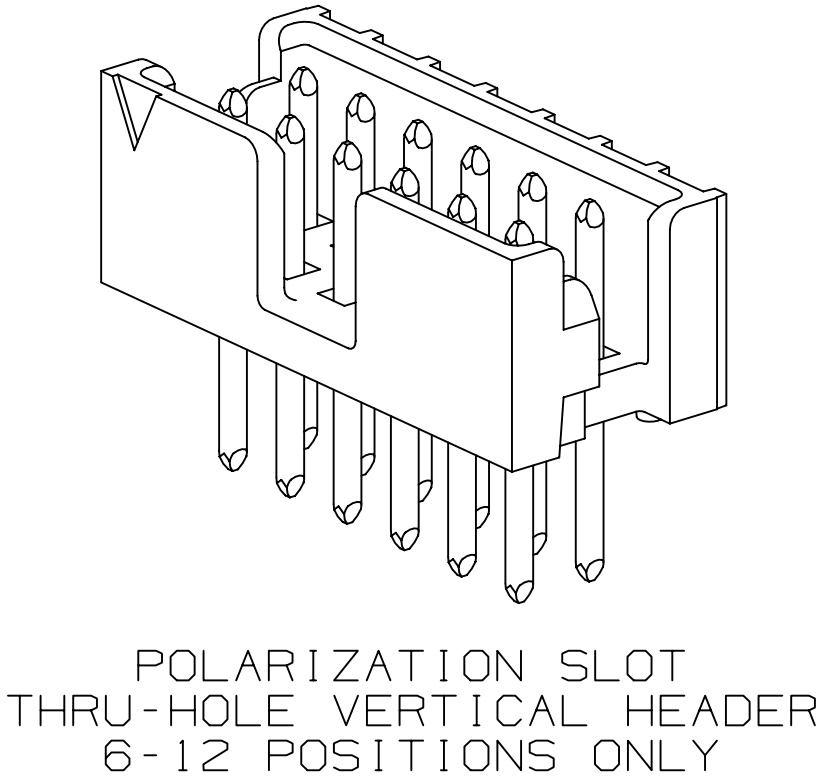
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]



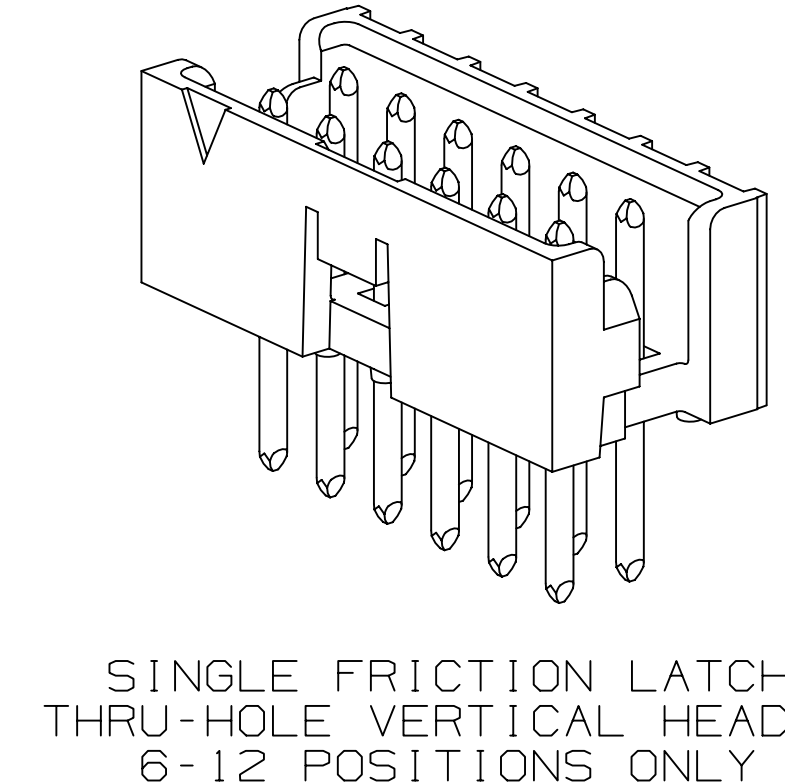
RECOMMENDED PCB HOLE PATTERN
TOLERANCE = 0.05 [.002]



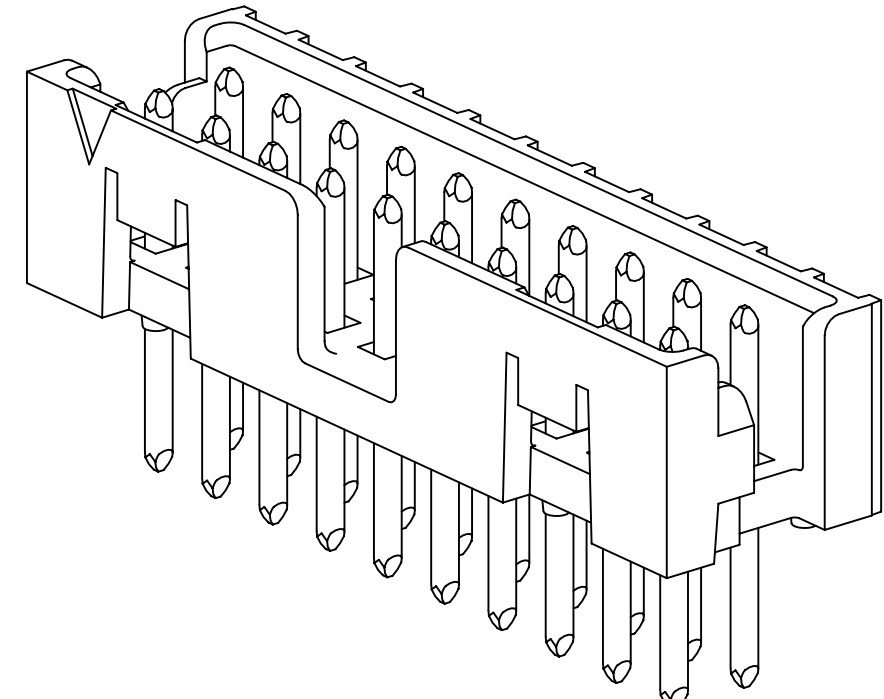
SECTION A - A



POLARIZATION SLOT
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY



SINGLE FRICTION LATCH
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY



POLARIZATION SLOT AND
DUAL FRICTION LATCHES
THRU-HOLE VERTICAL HEADER
14-50 POSITIONS

PERFORMANCE [5] [7]	
CURRENT:	1.25 A, ALL LINES ENERGIZED 2.75 A, 6 LINES ENERGIZED 4.75 A, 1 LINE ENERGIZED
INSULATION RESISTANCE:	>1 X 10 ⁹ OHMS AT 500 VDC
VOLTAGE RATING:	150 VAC PER EIA-364-20
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 5
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

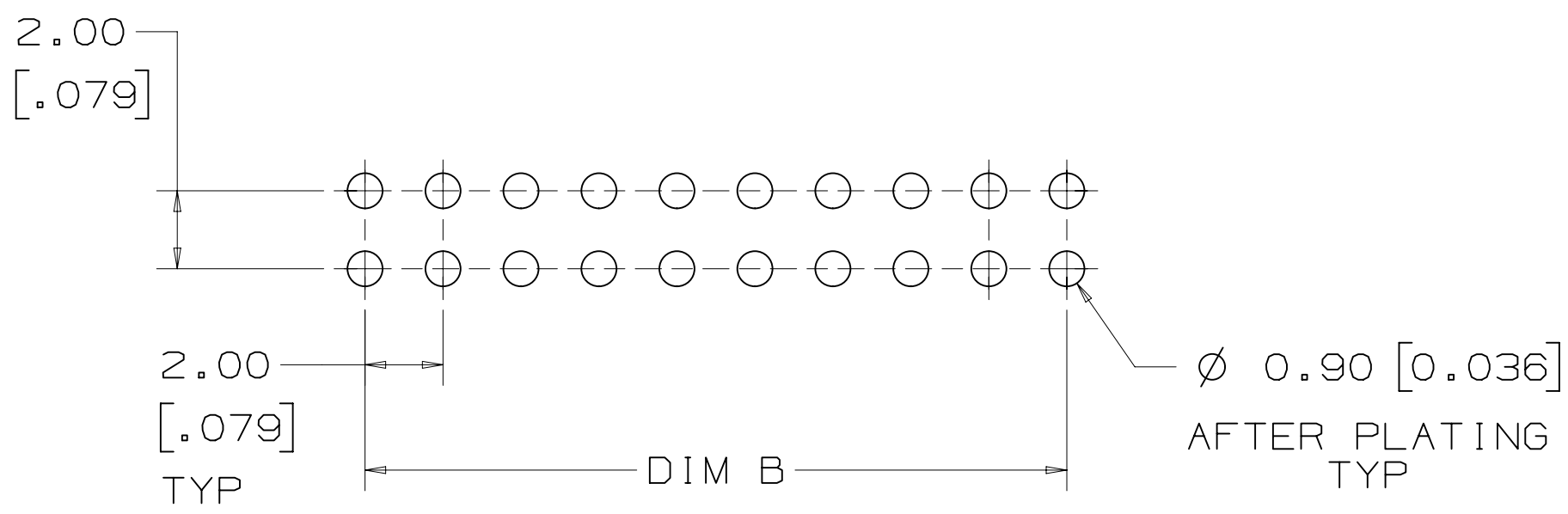
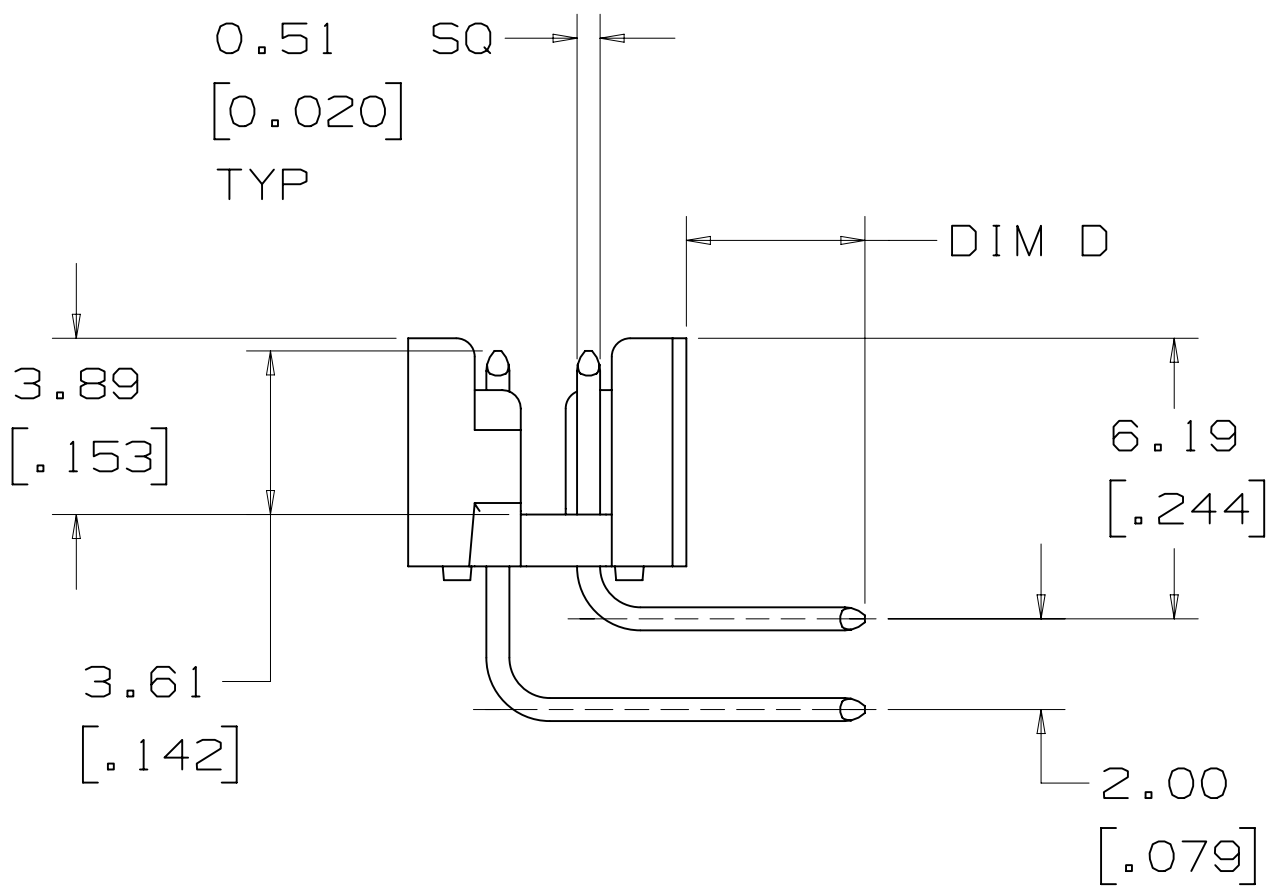
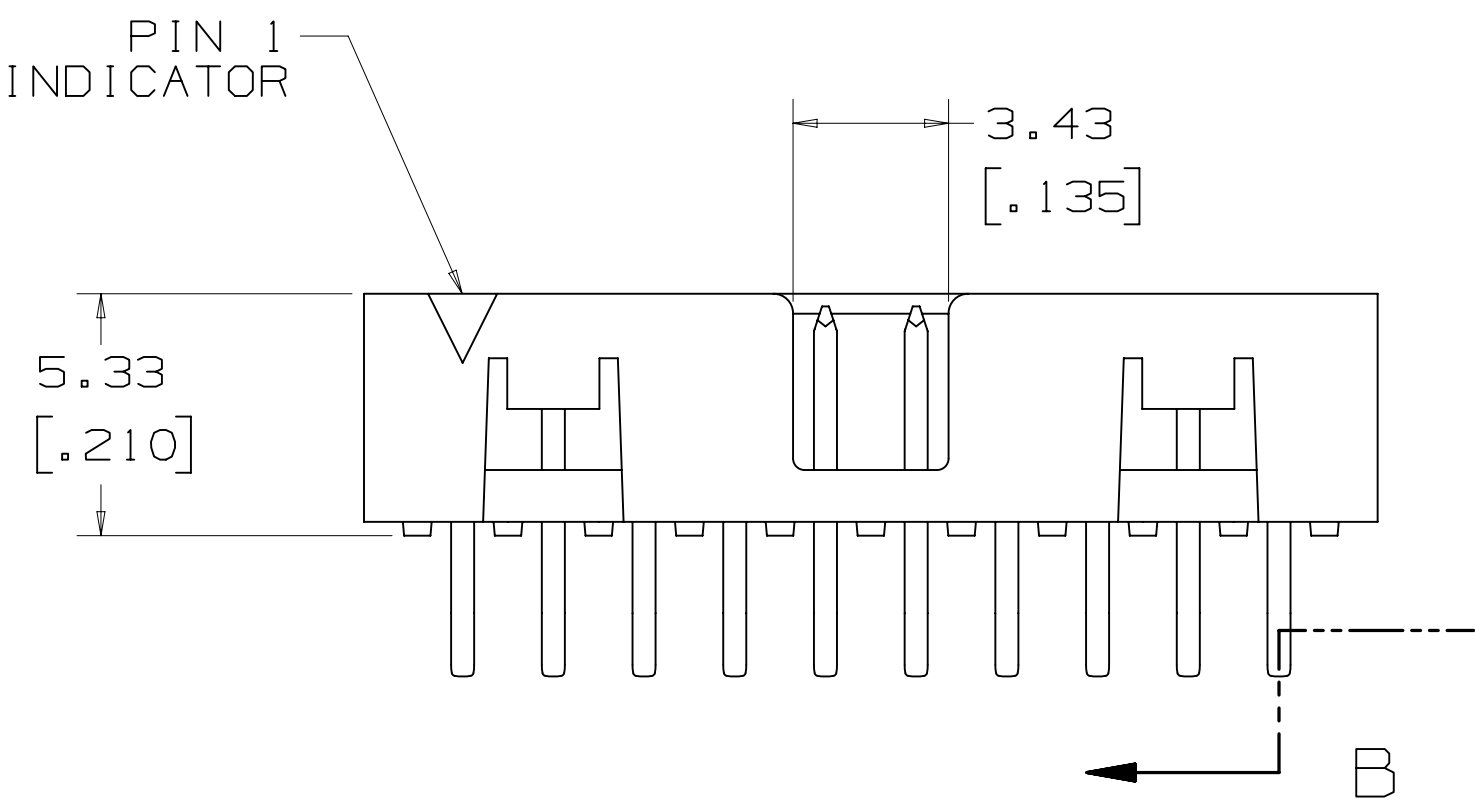
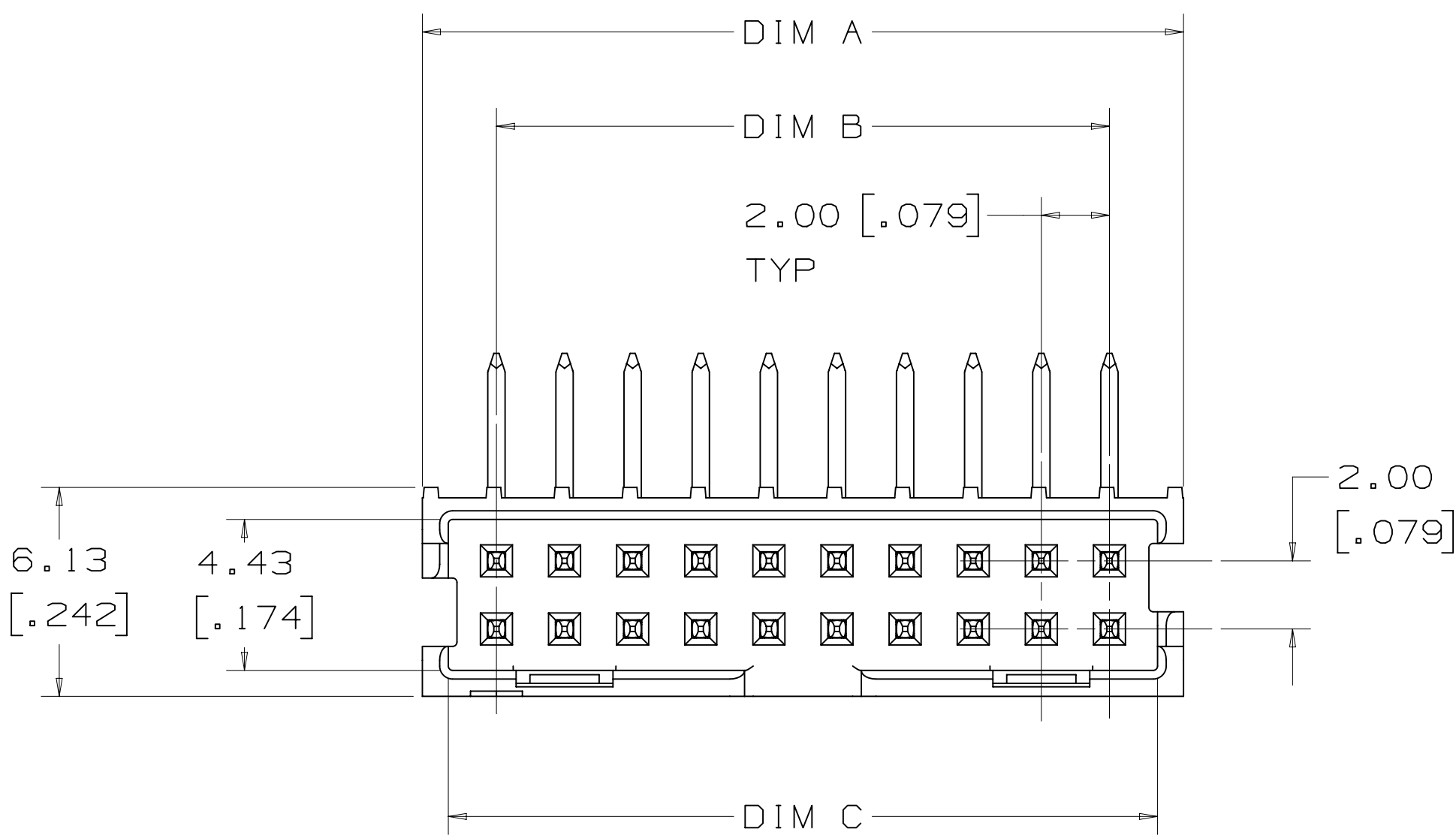
METRIC [ENGLISH]
cALUS
UL FILE NO: E68080

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
3M Center		DRP	L. SCHMIDT	DATE	JUL 29, 2010	MFG
CHKD		CHKD	S. FELDMAN	DATE	AUG 09, 2010	
DIVISION	DIVISION CODE	3M 3M Center St. Paul, MN 55144				
DO NOT SCALE DRAWING	SCALE 6-1	TOLERANCES EXCEPT AS NOTED				
THIRD ANGLE PROJECTION		INCHES 0.0 0.00 0.002 0.000 ± 0.000 ±				
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS 0 ± 0 ± 0.00 ± 0.00 ±				
MAX SURFACE ROUGHNESS		0.00 ± 0.00 ± 0.00 ±				
125 / ALL SURFACES		ANGLES ±1°				
MARKED ONLY						
TITLE		3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES				
CAGE NUMBER	SIZE	DRAWING NO.	REV.			
125	D	78-5100-2359-7	F			
MODEL	LISTS	YES	NO	SHT	1 OF 5	

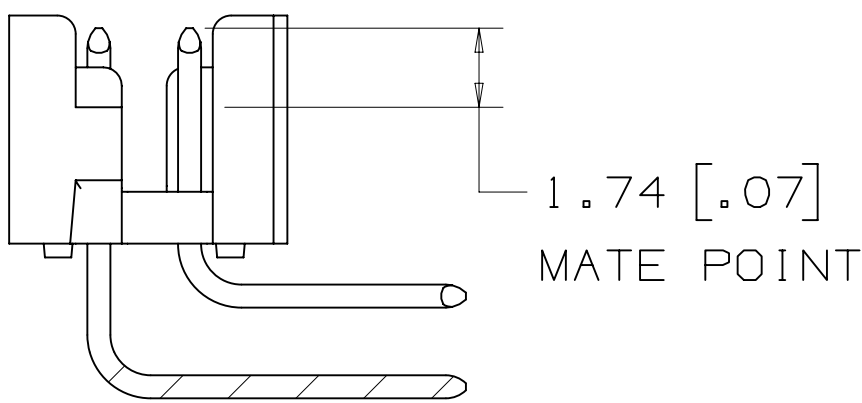
- NOTES
- MATERIAL:
BODY: HIGH TEMPERATURE GLASS FILLED LCP, BLACK UL94V-0
CONTACTS: COPPER ALLOY
 - PLATING:
2.03-3.81 μ m [80-150 μ in]
NICKEL UNDERPLATE.
0.38 μ m [15 μ in] OR
0.76 μ m [30 μ in] AVG GOLD ON WIPING AREA.
5.08 μ m [200 μ in] MIN
MATTE TIN ON SOLDER TAILS.
 - STANDARD LENGTH HEADERS MATE WITH 3M™ SOCKETS, 158 SERIES (REFERENCE 3M DRAWING 78-5100-2358-91).
 - 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.
 - PACKAGING:
VERTICAL THRU: TRAY
RIGHT ANGLE: TRAY
VERTICAL SMT: TAPE & REEL

F	52868	MAR 05, 2014	SJS	SAN
E	51692	DEC 16, 2013	SJS	SAN
D	41488	JUN 20, 2012	LDS	SAN
C	39876	APR 18, 2012	LDS	SAN
B	34080	MAY 18, 2011	LDS	SF
A	30741	OCT 28, 2010	LDS	SF

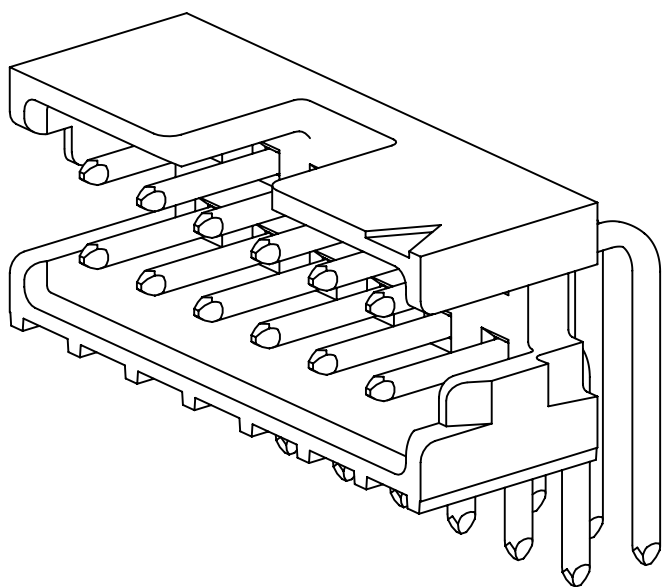
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



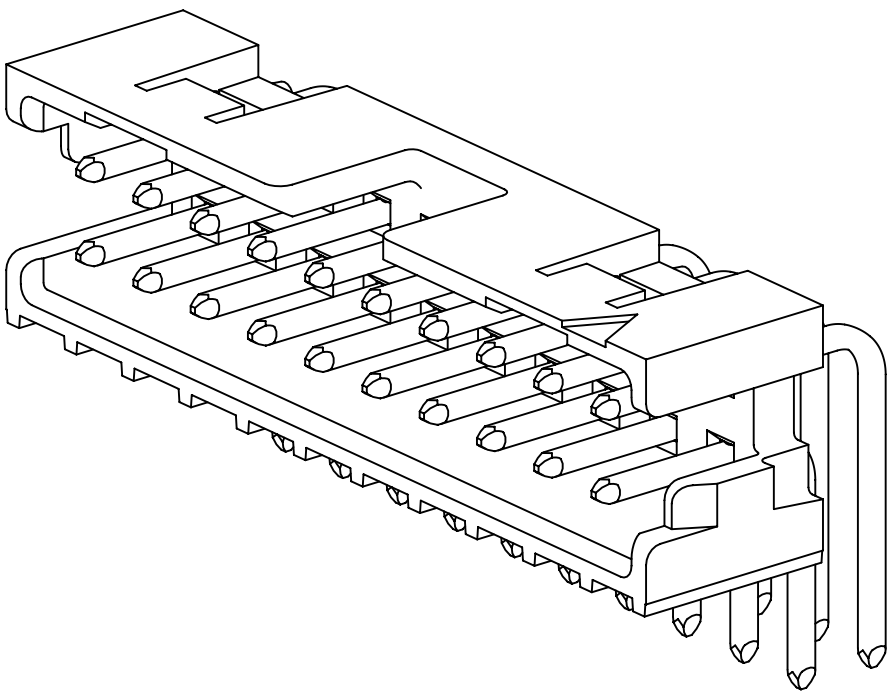
RECOMMENDED PCB HOLE PATTERN
TOLERANCE = ±0.05 [.002]



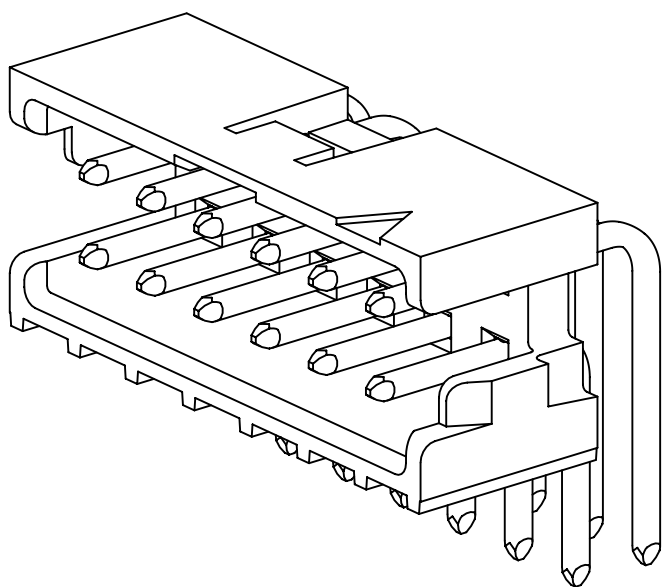
SECTION B - B



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

F	52868	MAR 05,2014	SJS	SAN
E	51692	DEC 16,2013	SJS	SAN
D	41488	JUN 20,2012	LDS	SAN
C	39876	APR 18,2012	LDS	SAN
B	34080	MAY 18,2011	LDS	SF
A	30741	OCT 28,2010	LDS	SF
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	CHKD	DATE	DATE	DATE
L. SCHMIDT		JUL 29,2010	MFG	
			APPR	
			S FELDMAN	AUG 09,2010

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED	INCHES	0.00 ±	0.00 ±	0.00 ±
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 1994	MILLIMETERS	0 ±	0.00 ±	0.00 ±	0.00 ±
MAX SURFACE ROUGHNESS	125	ALL SURFACES	0.00 ±	0.00 ±	0.00 ±	0.00 ±
MARKED ONLY	ANGLES ±1°	MODEL	DET	LISTS	YES	NO

3M

3M Center
St. Paul,
MN 55144

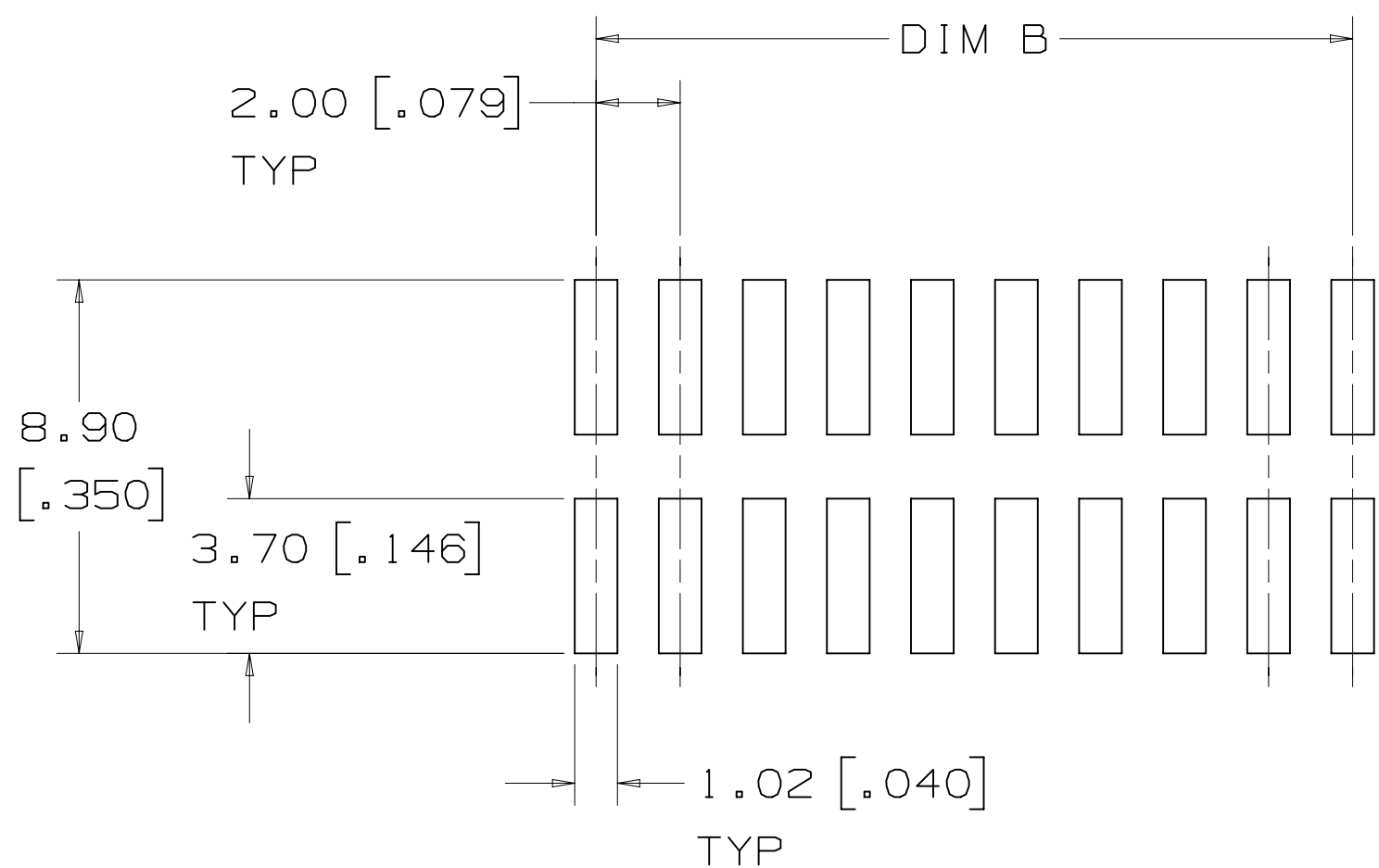
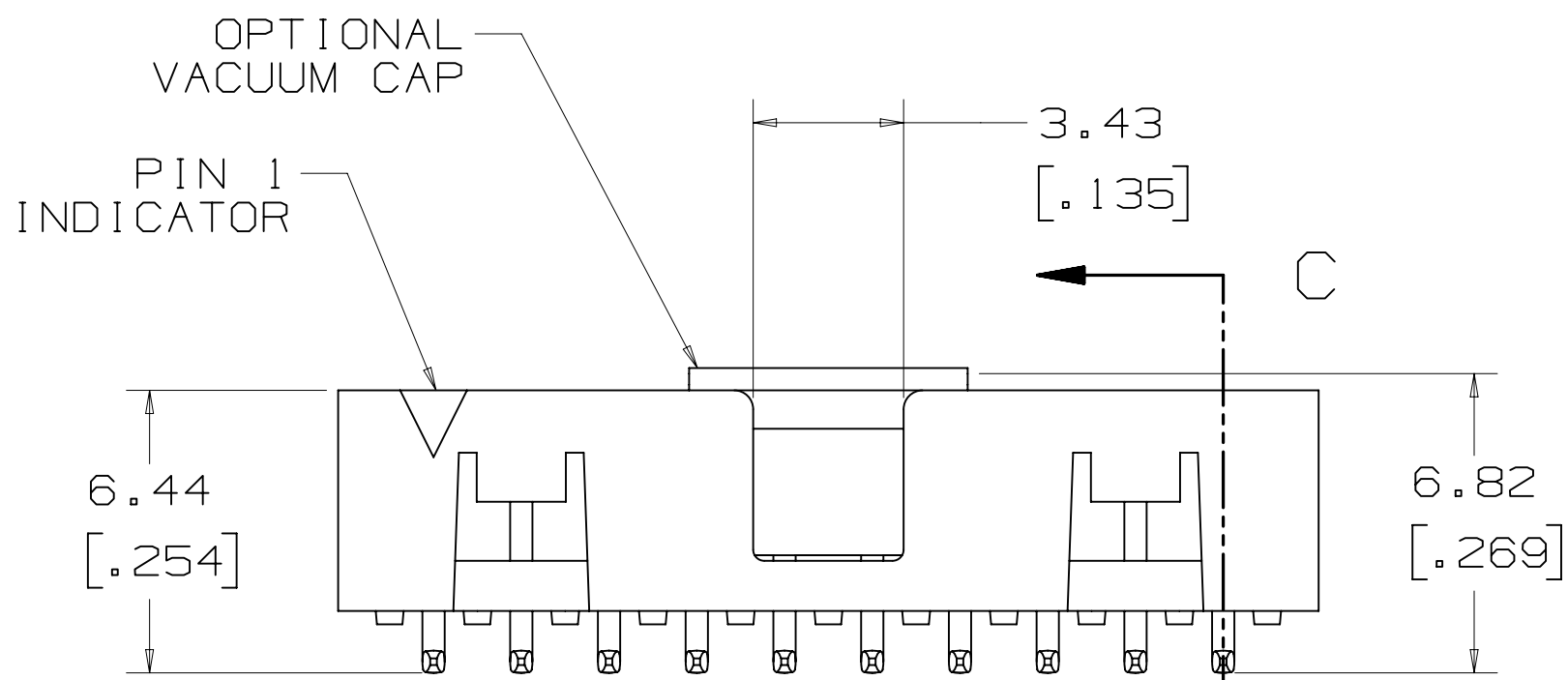
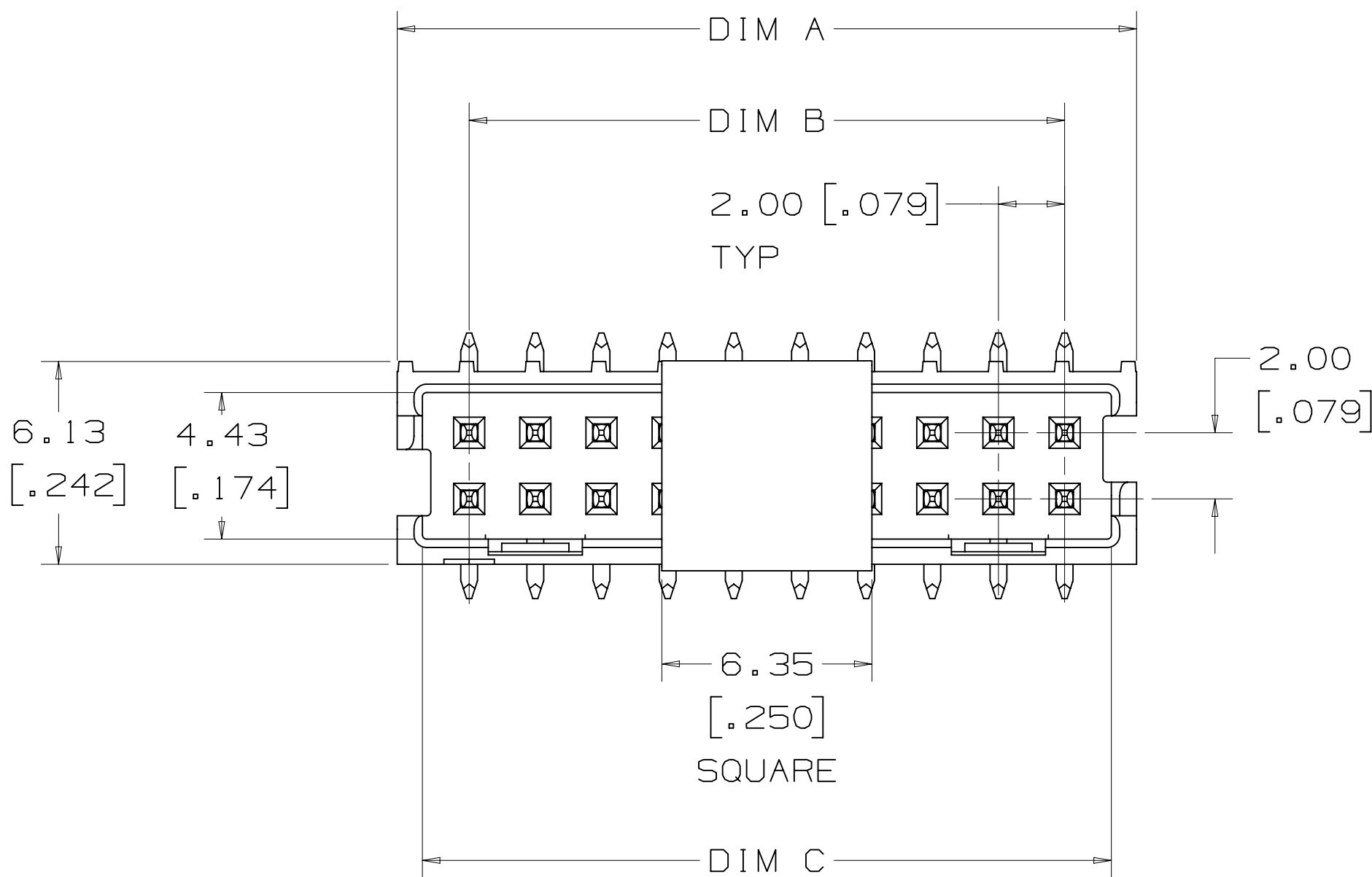
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TITLE	3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES
CAGE NUMBER	125
SIZE	D
DRAWING NO.	78-5100-2359-7
REV.	F
MODEL	SHT 2 OF 5

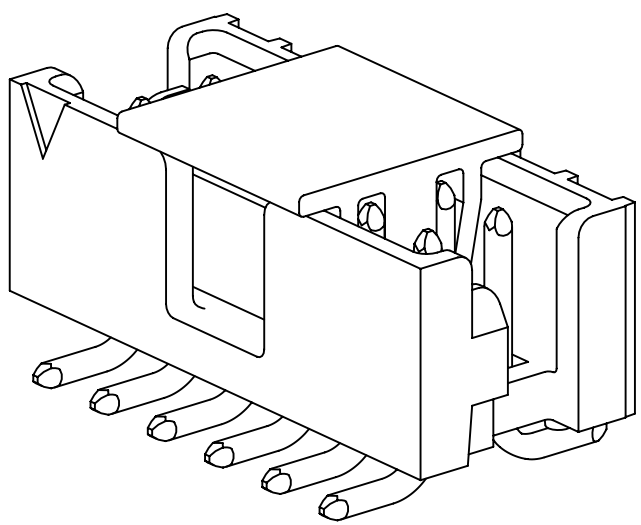
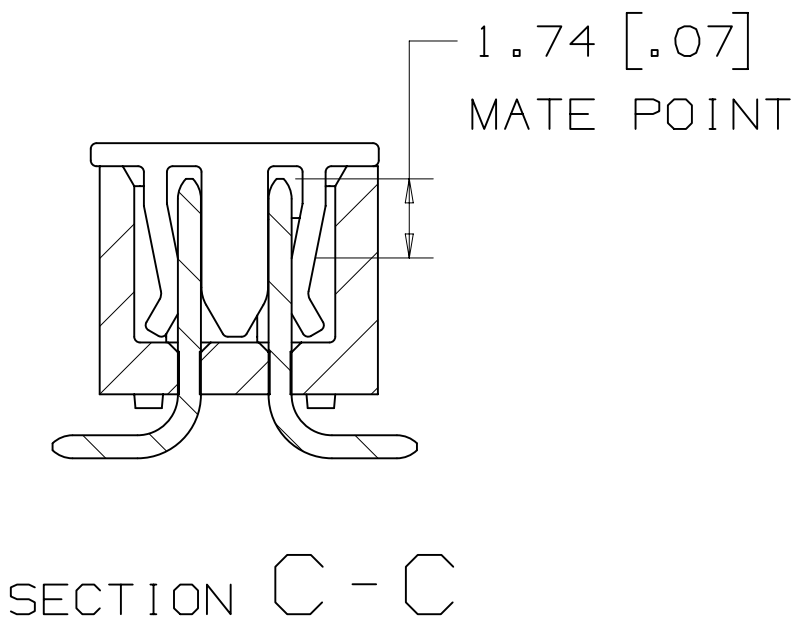
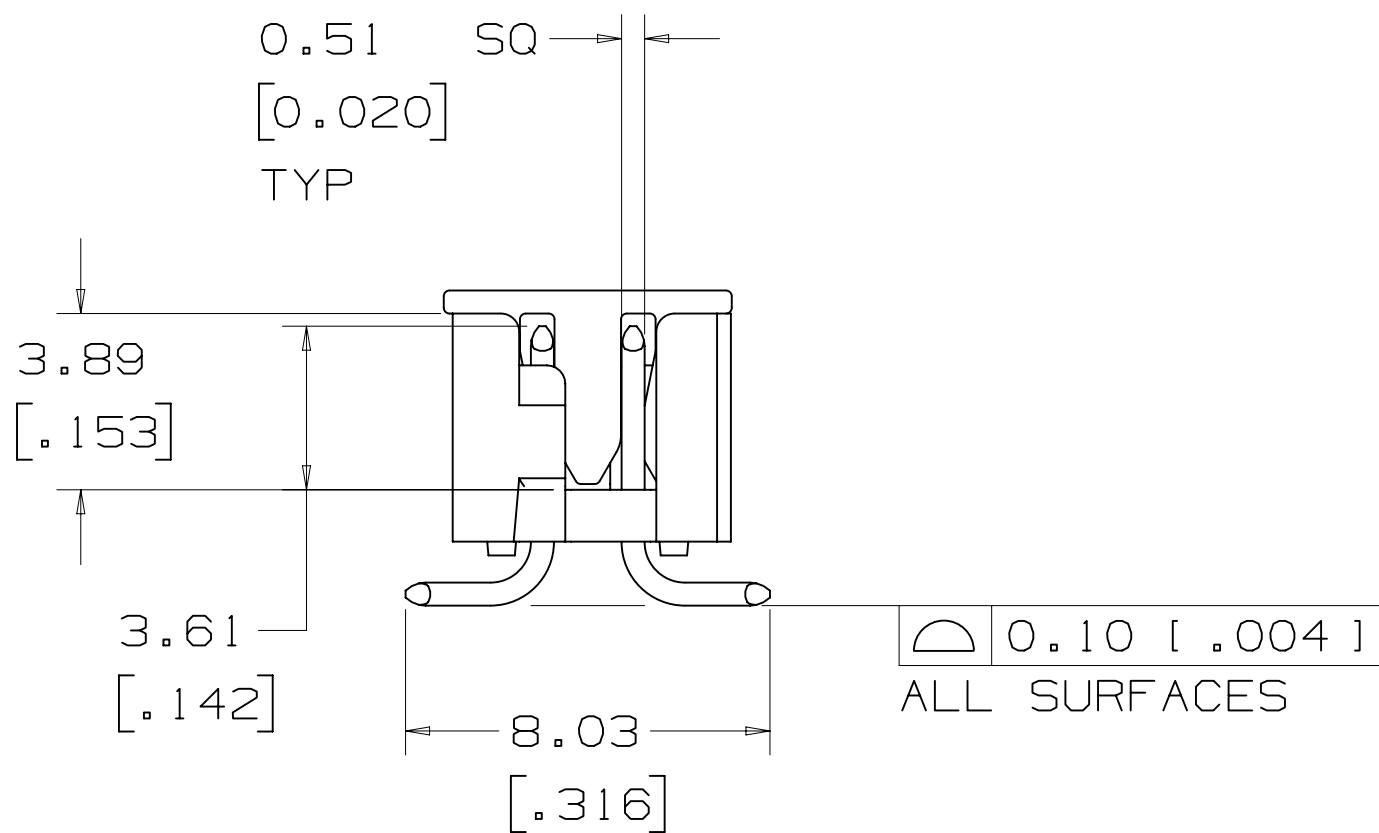
REFERENCE TABLE ON SHEET 5
FOR AVAILABLE POSITIONS AND
SOLDER TAIL LENGTHS

METRIC [ENGLISH]

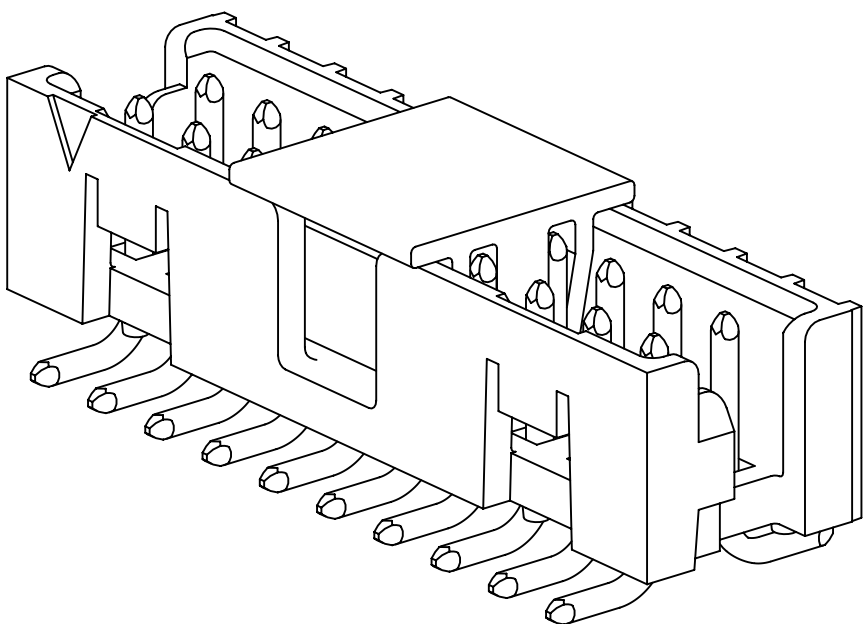
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3 and Extended Length 4



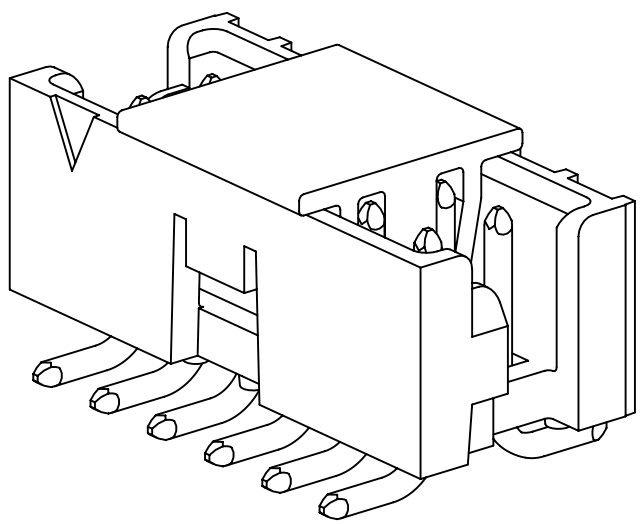
RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [.003]



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

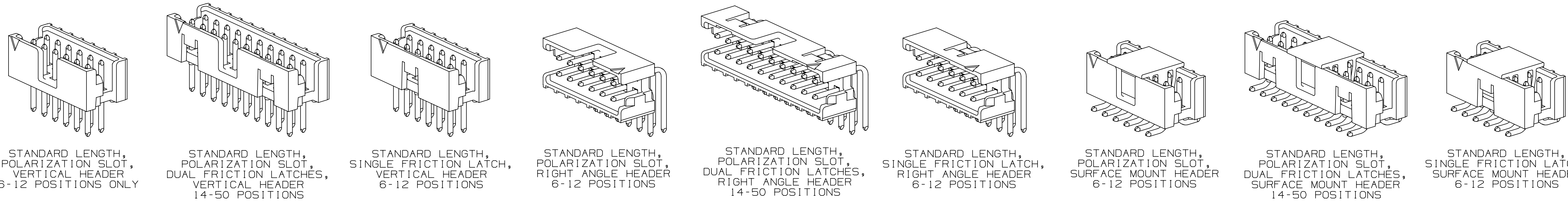
REFERENCE TABLE ON SHEET 5
FOR AVAILABLE POSITIONS

METRIC [ENGLISH]

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
L. SCHMIDT		JUL 29, 2010		1		MFG		DATE	
DIVISION		DIVISION CODE		CHKD		APPROVAL		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		CAGE NUMBER		DRAWING NO.	
125/		ALL SURFACES		0.00 ± 0.13		D 78-5100-2359-7		REV. F	
MARKED ONLY		ANGLES ±1°		MODEL		DET		SHT 3 OF 5	

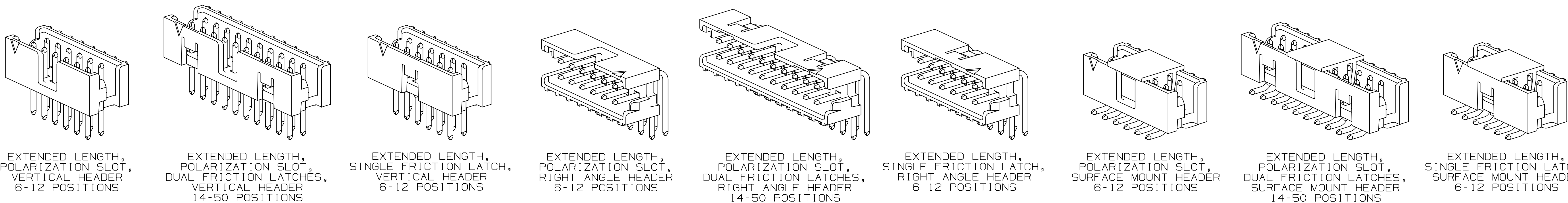
3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length 3

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

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)

METRIC [ENGLISH]

F	52868	MAR 05, 2014	SJS	SAN
E	51692	DEC 16, 2013	SJS	SAN
D	41488	JUN 20, 2012	LDS	SAN
C	39876	APR 18, 2012	LDS	SAN
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A	30741	OCT 28, 2010	LDS	SF
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	L. SCHMIDT	DATE JUL 29, 2010	DATE	DATE
CHKD		DATE	APPROV S FELDMAN	DATE AUG 09, 2010
DIVISION		DIVISION CODE		
DO NOT SCALE DRAWING	SCALE 4 1	TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		INCHES .00 .00 .000 .0000		
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS 0 .0 .00 .000		
MAX SURFACE ROUGHNESS 125		ALL SURFACES MARKED ONLY		
ANGLES $\pm$ 1°				
3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES				
CAGE NUMBER	SIZE	DRAWING NO.	REV.	
125	D	78-5100-2359-7	F	
MODEL	DET	LISTS	YES	NO
			SHT	4 OF 5

