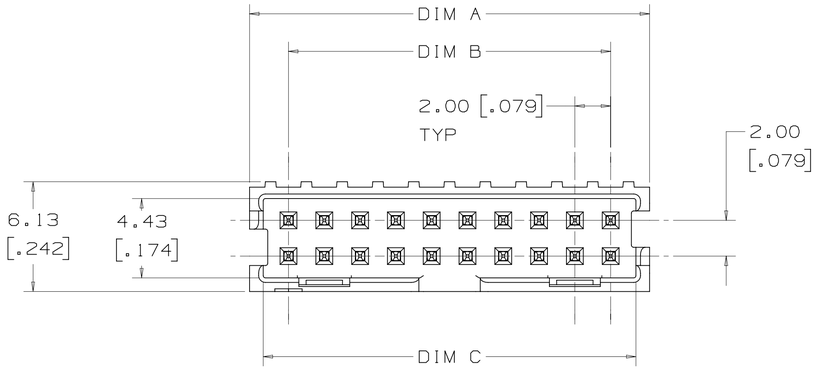
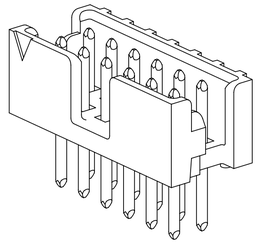
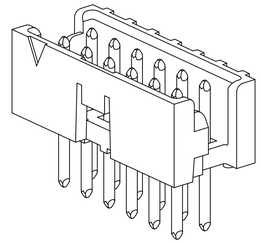
# 3M™ Shrouded Board Mount Header 2 mm X 2 mm Pitch 159 Series, Standard Length [3] and Extended Length [4]

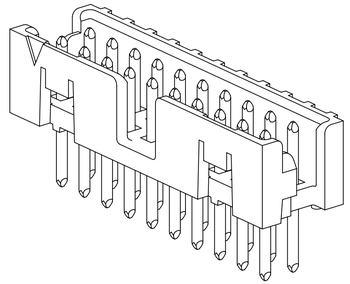


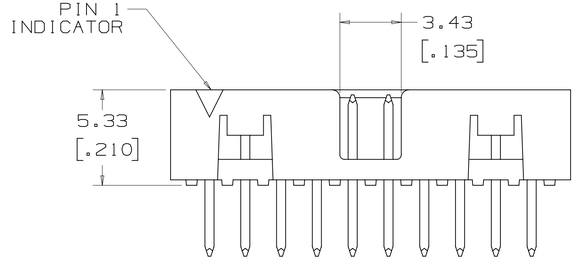
POLARIZATION SLOT
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY

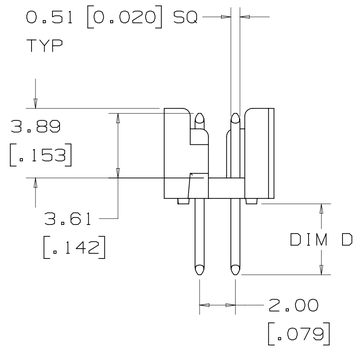


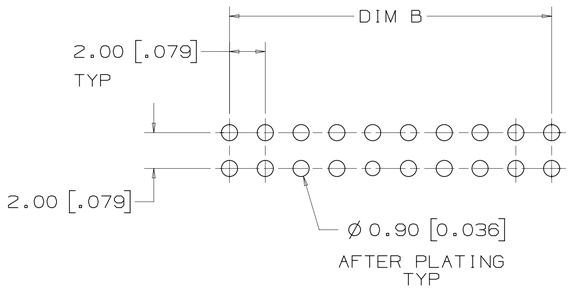
SINGLE FRICTION LATCH
THRU-HOLE VERTICAL HEADER
6-12 POSITIONS ONLY



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




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

NOTES

1 MATERIAL:
BODY: HIGH TEMPERATURE GLASS FILLED LCP, BLACK UL94V-0
CONTACTS: COPPER ALLOY

2 PLATING:
2.03-3.81 µm [80-150 µin] NICKEL UNDERPLATE.
0.38 µm [15 µin] OR 0.76 µm [30µin] AVG GOLD ON WIPING AREA.
5.08 µm [200 µin] MIN MATTE TIN ON SOLDER TAILS.

[3] STANDARD LENGTH HEADERS MATE WITH 3M™ SOCKETS, 158 SERIES (REFERENCE 3M DRAWING 78-5100-2358-9).

[4] EXTENDED LENGTH HEADERS MATE WITH 3M™ SOCKETS, 870 SERIES.

[5] FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION SEE 3M 78-5102-0078-1.

6 SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "RoHS COMPLIANCE" SECTION OF WWW.3MCONNECTOR.COM FOR COMPLIANCE INFORMATION (RIA E1 & C1 APPLY).

[7] IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.

| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
|---|---|---|---|---|
| A | 30741 | OCT 28,2010 INITIAL RELEASE | LDS | SF |

DESIGN REFERENCE | NEXT ASSEMBLY | DISTRIBUTION CODES | DIVISION | DIVISION CODE

DRFT L. SCHMIDT DATE JUL 29,2010 | MFG | DATE
CHKD | DATE | APPVL S FELDMAN DATE 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.

3M Center, St. Paul, MN 55144

DO NOT SCALE DRAWING | SCALE 6:1

TOLERANCES EXCEPT AS NOTED
INCHES .0 ± .00 ± .000 ± .0000 ±
MILLIMETERS 0 ± .0 ± .00 ± 0.13 .000 ± 
ANGLES ±1°

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 1994

MAX SURFACE ROUGHNESS 125 ☐ ALL SURFACES ☒ MARKED ONLY

METRIC [ ENGLISH ]

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

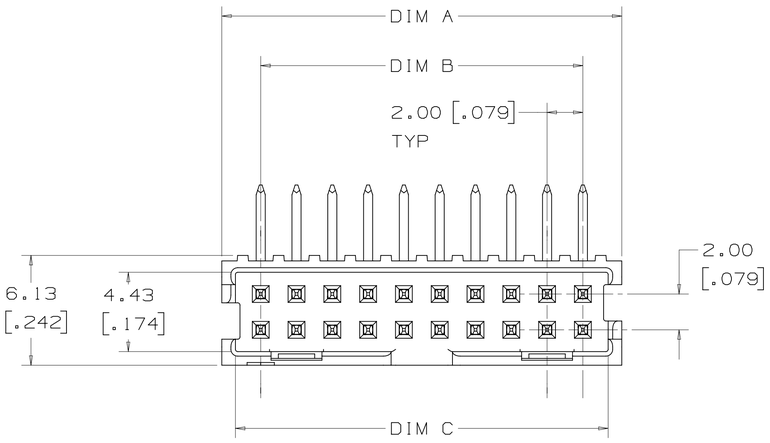
CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2359-7 | REV. A

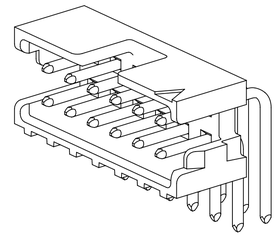
MODEL | DET. LISTS ☐ YES ☒ NO | SHT 1 OF 4

A REVISION

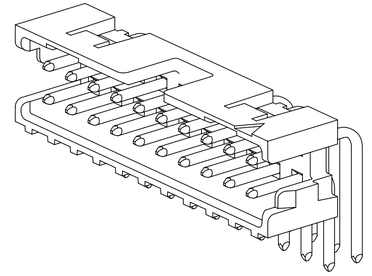
78-5100-2358-7 DRAWING NUMBER

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

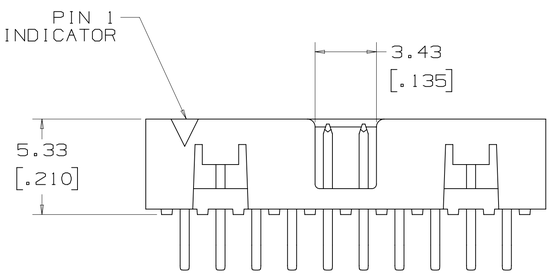


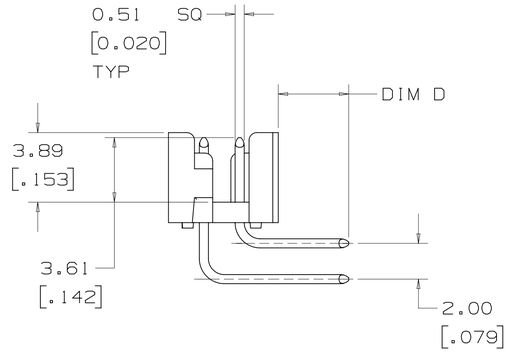



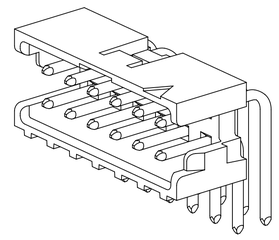
POLARIZATION SLOT
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY



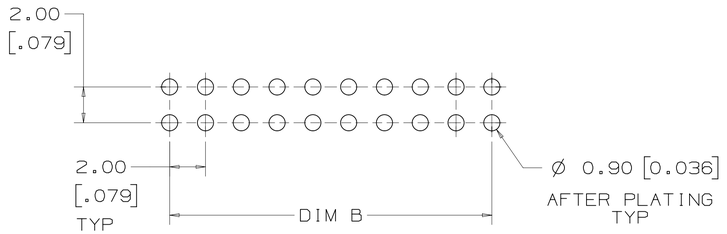
POLARIZATION SLOT AND
DUAL FRICTION LATCHES
RIGHT ANGLE HEADER
14-50 POSITIONS



SINGLE FRICTION LATCH
RIGHT ANGLE HEADER
6-12 POSITIONS ONLY




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

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

METRIC [ ENGLISH ]

| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
|---|---|---|---|---|
| A | 30741 | OCT 28,2010 INITIAL RELEASE | LDS | SF |

DESIGN REFERENCE | NEXT ASSEMBLY

DRFT: L. SCHMIDT — DATE: JUL 29,2010 — MFG — DATE
CHKD — DATE — APPVL: S FELDMAN — DATE: AUG 09,2010

DISTRIBUTION CODES | DIVISION | DIVISION CODE

DO NOT SCALE DRAWING | SCALE 4/1

TOLERANCES EXCEPT AS NOTED
INCHES
.0 ±
.00 ±
.000 ±
.0000 ±
MILLIMETERS
0 ±
.0 ±
.00 ±0.13
.000 ±
ANGLES ±1°

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 1994

MAX SURFACE ROUGHNESS 125 ☐ ALL SURFACES ☒ MARKED ONLY


3M Center St. Paul, MN 55144

© 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.

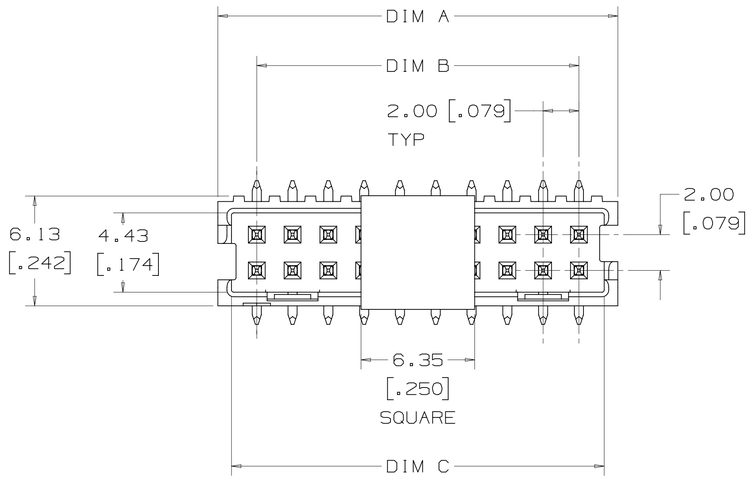

TITLE: 3M SHROUDED BOARD MOUNT HEADER 2 MM X 2 MM PITCH 159 SERIES

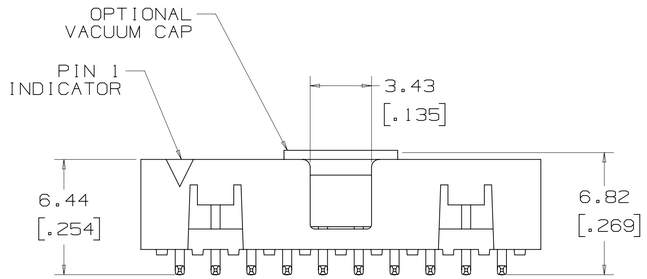
CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2359-7 | REV. A

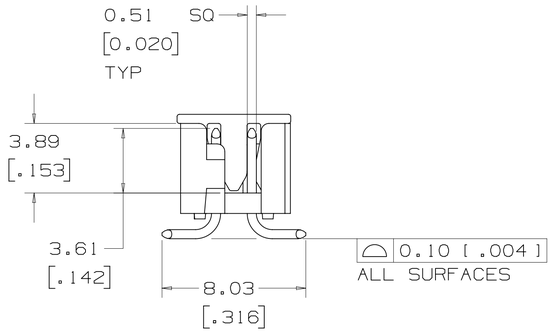
MODEL | DET. LISTS ☐ YES ☒ NO | SHT 2 OF 4

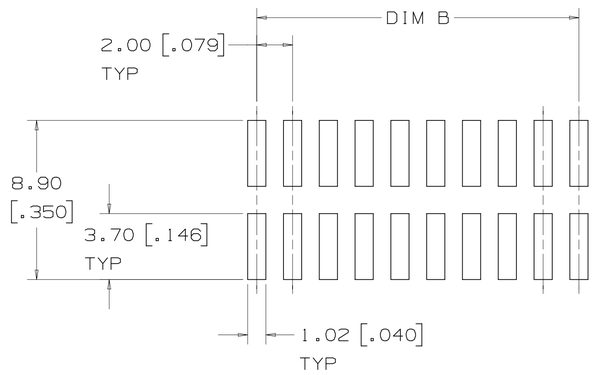
78-5100-2359-7 DRAWING NUMBER | A REVISION

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

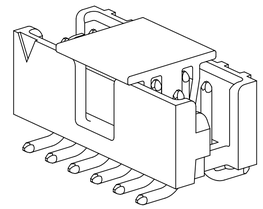


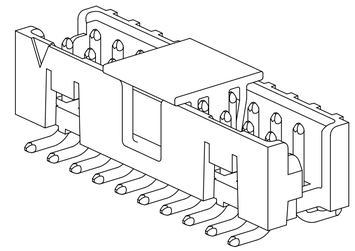



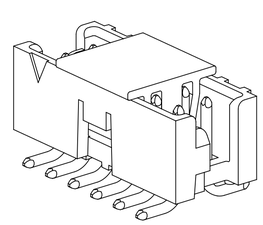

RECOMMENDED PCB PAD PATTERN
TOLERANCE = ±0.08 [ .003 ]



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 4
FOR AVAILABLE POSITIONS

METRIC [ ENGLISH ]

| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
|---|---|---|---|---|
| A | 30741 | OCT 28,2010 INITIAL RELEASE | LDS | SF |

DESIGN REFERENCE | NEXT ASSEMBLY | DISTRIBUTION CODES

DRFT L. SCHMIDT DATE JUL 29,2010 | MFG | DATE

CHKD | DATE | APPVL S FELDMAN DATE AUG 09,2010

DIVISION | DIVISION CODE

© 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.

3M Center, St. Paul, MN 55144

DO NOT SCALE DRAWING | SCALE 4:1

TOLERANCES EXCEPT AS NOTED
INCHES
.0 ±
.00 ±
.000 ±
.0000 ±
MILLIMETERS
0 ±
.0 ±
.00 ±0.13
.000 ±
ANGLES ±1°

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 1994

MAX SURFACE ROUGHNESS 125 ☐ ALL SURFACES ☒ MARKED ONLY

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

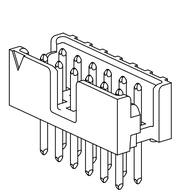
CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2359-7 | REV. A

MODEL | DET. LISTS ☐ YES ☒ NO | SHT 3 OF 4

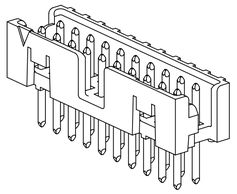
78-5100-2359-7 DRAWING NUMBER A REVISION

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

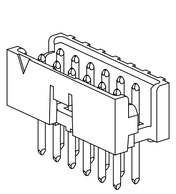
STANDARD LENGTH HEADERS ARE AVAILABLE



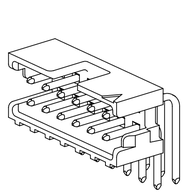
STANDARD LENGTH, POLARIZATION SLOT, VERTICAL HEADER 6-12 POSITIONS ONLY



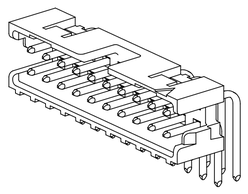
STANDARD LENGTH, POLARIZATION SLOT, DUAL FRICTION LATCHES, VERTICAL HEADER 14-50 POSITIONS



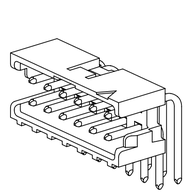
STANDARD LENGTH, SINGLE FRICTION LATCH, VERTICAL HEADER 6-12 POSITIONS



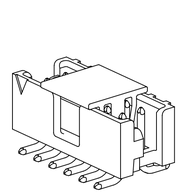
STANDARD LENGTH, POLARIZATION SLOT, RIGHT ANGLE HEADER 6-12 POSITIONS



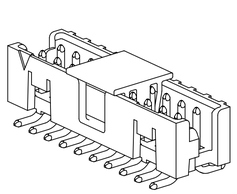
STANDARD LENGTH, POLARIZATION SLOT, DUAL FRICTION LATCHES, RIGHT ANGLE HEADER 14-50 POSITIONS



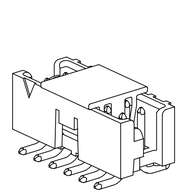
STANDARD LENGTH, SINGLE FRICTION LATCH, RIGHT ANGLE HEADER 6-12 POSITIONS



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



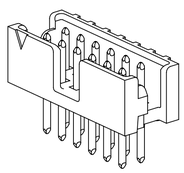
STANDARD LENGTH, POLARIZATION SLOT, DUAL FRICTION LATCHES, SURFACE MOUNT HEADER 14-50 POSITIONS



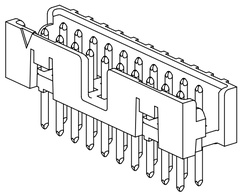
STANDARD LENGTH, SINGLE FRICTION LATCH, SURFACE MOUNT HEADER 6-12 POSITIONS

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

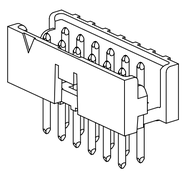
CALL 3M INTERCONNECT SOLUTIONS AT 800-225-5373 FOR AVAILABILITY OF EXTENDED LENGTH HEADERS



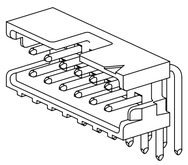
EXTENDED LENGTH, POLARIZATION SLOT, VERTICAL HEADER 6-12 POSITIONS



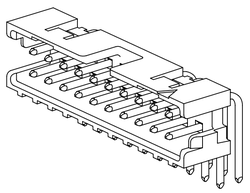
EXTENDED LENGTH, POLARIZATION SLOT, DUAL FRICTION LATCHES, VERTICAL HEADER 14-50 POSITIONS



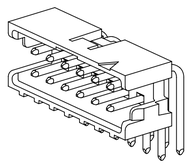
EXTENDED LENGTH, SINGLE FRICTION LATCH, VERTICAL HEADER 6-12 POSITIONS



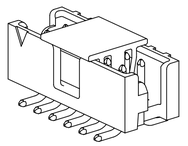
EXTENDED LENGTH, POLARIZATION SLOT, RIGHT ANGLE HEADER 6-12 POSITIONS



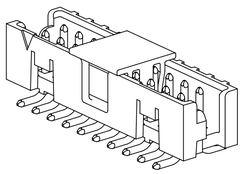
EXTENDED LENGTH, POLARIZATION SLOT, DUAL FRICTION LATCHES, RIGHT ANGLE HEADER 14-50 POSITIONS



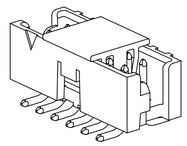
EXTENDED LENGTH, SINGLE FRICTION LATCH, RIGHT ANGLE HEADER 6-12 POSITIONS



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 µm [30 µin] 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 µm [15 µin] 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)

| SHROUDED BOX HEADER | | | | | | | |
|---|---|---|---|---|---|---|---|
| NUMBER OF POSITIONS | 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]

| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
|---|---|---|---|---|
| A | 30741 | OCT 28,2010 INITIAL RELEASE | LDS | SF |

DESIGN REFERENCE | NEXT ASSEMBLY | DISTRIBUTION CODES | DIVISION | DIVISION CODE

DRFT L. SCHMIDT DATE JUL 29,2010 MFG DATE
CHKD DATE APPV. S FELDMAN DATE 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.

3M Center, St. Paul, MN 55144

DO NOT SCALE DRAWING | SCALE 4/1 | THIRD ANGLE PROJECTION | INTERPRET PER ASME Y14.5 - 1994 | MAX SURFACE ROUGHNESS 125 ☐ ALL SURFACES ☒ MARKED ONLY

TOLERANCES EXCEPT AS NOTED: INCHES .0 ± .00 ± .000 ± .0000 ±; MILLIMETERS 0 ± .0 ± .00 ± 0.13 .000 ±; ANGLES ±1°

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

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2359-7 | REV. A

MODEL | DET LISTS ☐ YES ☒ NO | SHT 4 OF 4

78-5100-2359-7 DRAWING NUMBER | A REVISION

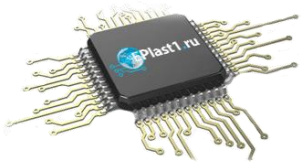
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.