

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



TABLE 1: VERTICAL THRU

No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920

- NOTES
- MATERIAL:
BODY: LCP, UL94V-0
LATCH: PPA, UL94V-0
CONTACTS: COPPER ALLOY.
 - PLATING:
50-150μ" NICKEL UNDERPLATE
30 = 30μ" GOLD MIN. ON WIPING AREA WITH 200μ" MATTE TIN ON SOLDER TAIL
00 = GOLD FLASH ON WIPING AREA WITH 100-140μ" MATTE TIN ON SOLDER TAIL.
 - MATING COMPATIBILITY:
3M 1.27mm (0.050"), 451 SERIES RIBBON CABLE SOCKET. TECH SHEET 2436
 - REGULATORY INFORMATION:
ROHS COMPLIANT. SEE THE REGULATORY INFORMATION APPENDIX (RIA) IN THE "ROHS COMPLIANCE" SECTION OF WWW.3MCONNECTORS.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.
 - REFERENCE PRODUCT SPEC:
3M DOC ID# 78-5102-0091-4
 - OTHER PIN COUNTS AVAILABLE UPON REQUEST. CONTACT 3M.
 - UNLESS OTHERWISE NOTED, REFERENCES TO INDUSTRY SPECIFICATIONS ARE INTENDED TO INDICATE SUBSTANTIAL COMPLIANCE TO THE MATERIAL ELEMENTS OF THE SPECIFICATION. SUCH REFERENCES SHOULD NOT BE CONSTRUED AS A GUARANTEE OF COMPLIANCE TO ALL REQUIREMENTS IN A GIVEN SPECIFICATION.
 - PACKAGING:
VERTICAL THRU: TRAY
RIGHT ANGLE THRU: TRAY
VERTICAL SMT: TAPE AND REEL.

THRU BOARD, VERTICAL WITH LOW PROFILE LATCH/EJECT OPTION



THRU BOARD, VERTICAL



POLARIZATION AND FRICTION LATCHING POSITIONS 8-30 ONLY



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

PERFORMANCE:

CURRENT RATING: 1.0 A, ALL LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70
1.5 A, 6 LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70
2.5 A, 1 LINE ENERGIZED, 30°C TEMP RISE PER EIA 364-70

UL & CUL VOLTAGE RATING: 125V_{ac}
INSULATION RESISTANCE: > 1 × 10⁹ Ohms AT 500 VDC
WITHSTANDING VOLTAGE: 1250VACrms AT SEA LEVEL
OPERATING TEMPERATURE: -65°C to +125°C
UL & CUL OPERATING TEMPERATURE: +125°C
PROCESSING TEMPERATURE: 260°C
LEAD-FREE SOLDERABLE: YES
MOISTURE SENSITIVITY LEVEL: MSL1 PER J-STD-020

452 XX - X X 0 2 XX
SERIES
POSITION COUNT
04 - 30
SEE TABLE 1

PLATING
00 = AU FLASH
30 = 30μ" GOLD

CONTACT TAIL
2 = STANDARD (.094")

PART CONFIG. AND PACKAGING
6 = VERTICAL THRU HOLE, TRAY PACKAGING
5 = RIGHT ANGLE THRU HOLE, TRAY PACKAGING
2 = VERTICAL SMT, TAPE AND REEL WITH VAC CAP

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

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78-5100-2436-3
78-5100-2396-9

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
E	54514	JUN 19, 2014 ADD UL LOGO, ADD 56MM T&R	SJS	SAN
D	51884	JAN 08, 2014 ADD DESIGN REF, UPDATE TITLE	SJS	SAN
C	50290	OCT 08, 2013 REVISE NOTE 1, 9 & OPERATING TEMP.	JNC	SN
B	48635	JUL 12, 2013 MATCH TEXT FONTS & ADD NOTE 9	JNC	SN
A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

DESIGN REFERENCE: INTERCONNECT SOLUTIONS
SCALE: 6-1
TOLERANCES EXCEPT AS NOTED

INCHES: .00 ±.01, .00 ±.02, .000 ±.010, .0000 ±.0050
MILLIMETERS: 0 ±.05, .00 ±.05, .00 ±.05, .00 ±.05

MAX SURFACE ROUGHNESS: 1.6 μm (63 μin) SURFACES
MARKED ONLY

3M
BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER: D78-5100-2437-1
REV. NUMBER: F

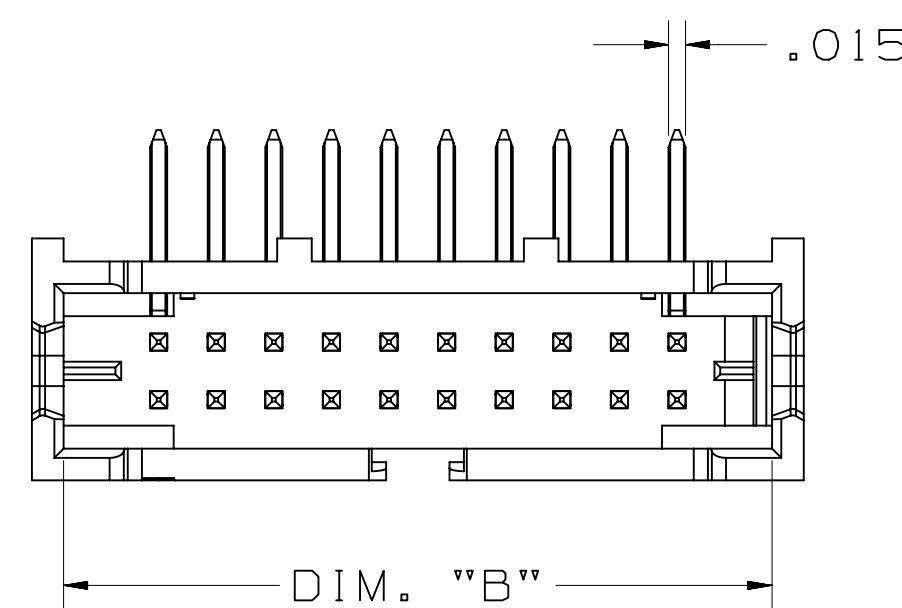
MODEL: SHT 1 OF 4

UL FILE NO: E68080

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

TABLE 1: RIGHT ANGLE THRU

No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920



THRU BOARD, RIGHT ANGLE



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
ARM		NOV 29, 2012 PRC		NOV 29, 2012
SAN		NOV 29, 2012 SAN		NOV 29, 2012

DIVISION CODE DIVISION CODE

Interconnect Solutions ISD

DO NOT SCALE DRAWING

SCALE 6/1

TOLERANCES EXCEPT AS NOTED

INCHES .0 ± .1

.00 ± .02

.000 ± .010

.0000 ± .0050

MILLIMETERS 0 ±

.0 ±

.00 ±

.00 ±

MARKED ONLY ANGLES ±

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
F	56988	SEP 24, 2014 REVISE PERFORMANCE CHART	JNC	SN
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A	46797	MAR 25, 2013 PRODUCTION RELEASE	JNC	SAN

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3M Center St. Paul, MN 55144

TITLE BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER D78-5100-2437-1

REV. F

MODEL

DET. [] IS1S [] YES [] NO [] SHT 2 OF 4

78-5100-2437-1 F REVISION DRAWING NUMBER
AM UTC-05:00
9/24/2014 9:06

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES

TABLE 1: VERTICAL SMT

No. Positions	Dim "A"	Dim "B"	Dim "C"
4	.050	.215	.270
6	.100	.265	.320
8	.150	.315	.370
10	.200	.365	.420
12	.250	.415	.470
14	.300	.465	.520
16	.350	.515	.570
20	.450	.615	.670
30	.700	.865	.920



SURFACE MOUNT, VERTICAL



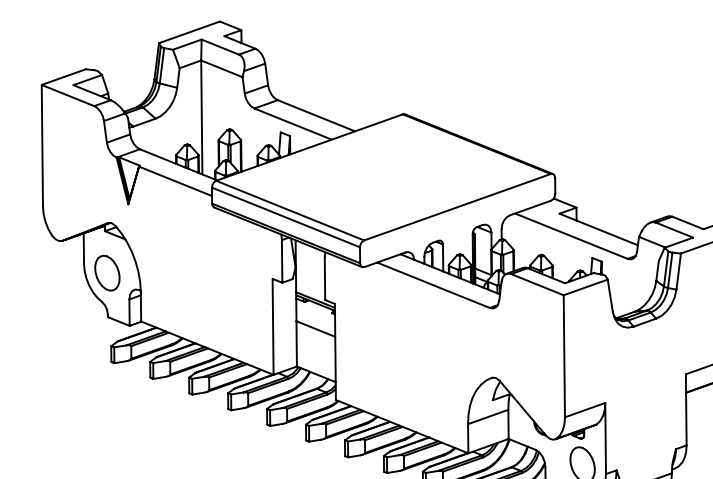
RECOMMENDED BOARD LAYOUT



SHROUDED SMT HEADER



VACUUM CAP SEATED ON TOP
EDGES OF END WALLS ON
POSITIONS 4 AND 6



WITH VACUUM CAP



WITH LATCH/EJECT



WITH LATCH/EJECT
AND VACUUM CAP
VACUUM CAP IS FULLY SEATED
ON POSITIONS 8 THRU 30

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
ARM		NOV 29, 2012 PRC		NOV 29, 2012
SAN		NOV 29, 2012 SAN		NOV 29, 2012

DIVISION: Interconnect Solutions
SCALE: 6/1
TOLERANCES EXCEPT AS NOTED

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS

MARKED ONLY

F	56988	SEP 24, 2014	JNC	SN
E	54514	JUN 19, 2014	SJS	SAN
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REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
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SAN		NOV 29, 2012 SAN		NOV 29, 2012

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St. Paul, MN 55144

TITLE: BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER: D78-5100-2437-1
REV. F

MODEL: SHT 3 OF 4

78-5100-2437-1 F REVISION
AM UTC-05:00
Imaged: F.1 9/24/2014 9:06

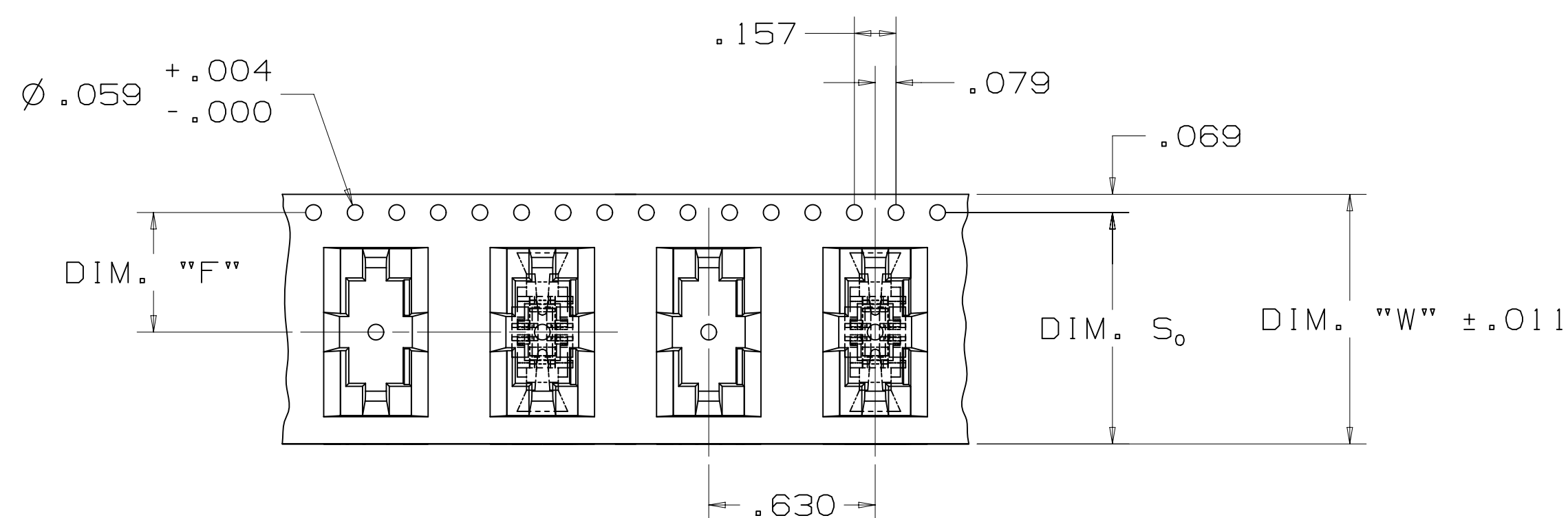
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH
LATCH AND EJECT, 452 SERIES



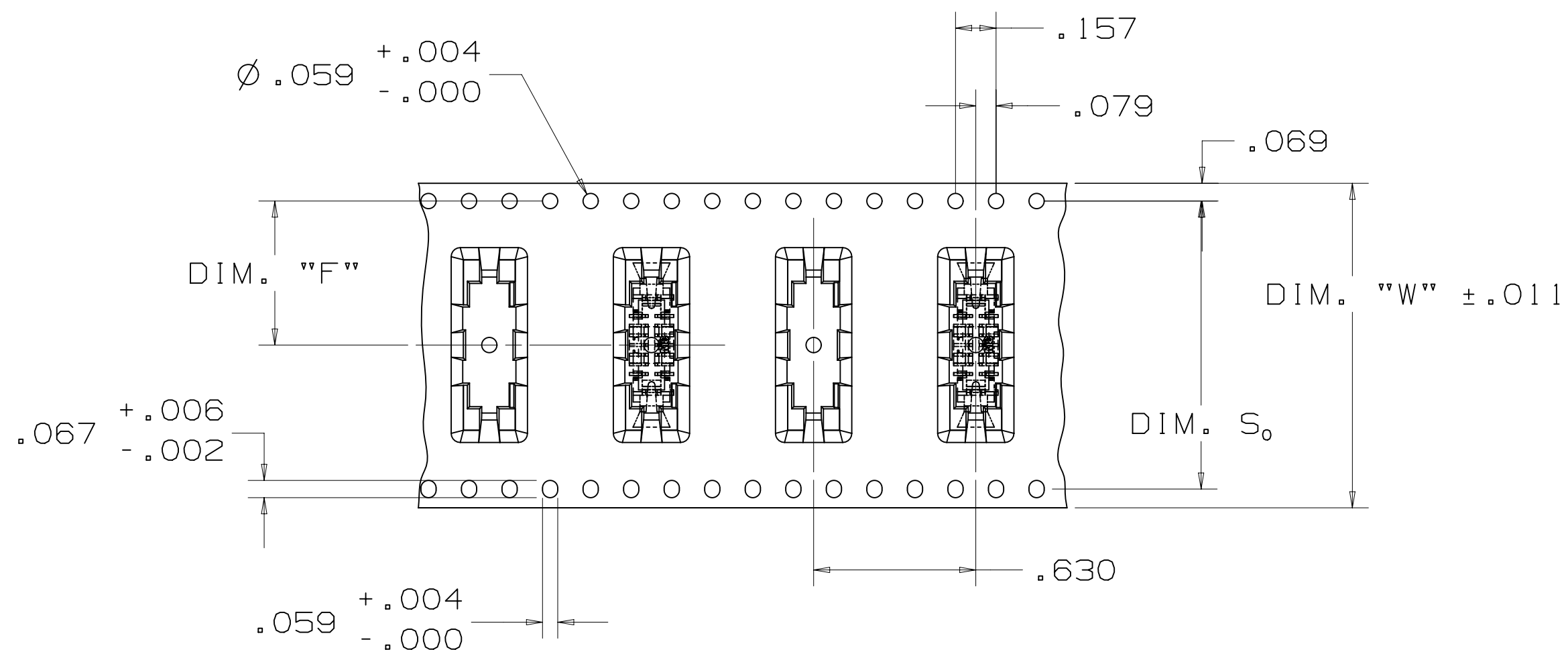
TABLE 2
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

POS	LATCHES	DIM. "F"	DIM. K ₀	DIM. S ₀	DIM. "W"
4	NO	.453	.263	.876	.945 [24MM]
4	YES	.453	.300	.876	1.260 [32MM]
6	NO	.453	.238	.876	.945 [24MM]
6	YES	.559	.300	1.118	1.260 [32MM]
8	NO	.453	.238	.876	.945 [24MM]
8	YES	.559	.300	1.118	1.732 [44MM]
10	NO	.453	.238	.876	.945 [24MM]
10	YES	.559	.300	1.118	1.732 [44MM]
12	NO	.453	.238	.876	.945 [24MM]
12	YES	.559	.300	1.118	1.732 [44MM]
14	NO	.453	.238	.876	.945 [24MM]
14	YES	.795	.300	1.591	1.732 [44MM]
16	NO	.453	.238	.876	.945 [24MM]
16	YES	.795	.300	1.591	1.732 [44MM]
20	NO	.559	.238	1.118	1.260 [32MM]
20	YES	.795	.300	1.591	1.732 [44MM]
30	NO	.795	.238	1.591	1.732 [44MM]
30	YES	.795	.300	1.591	2.205 [56MM]

NOTE:
LATCH EJECT HEADERS ARE PACKAGED WITH THE LATCHES
IN AN OPEN POSITION.



24MM WIDE POCKET TAPE



32MM, 44MM AND 56MM WIDE POCKET TAPE

78-5100-2436-3
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS

MARKED ONLY

DIVISION CODE

Interconnect Solutions

SCALE 1

TOLERANCES EXCEPT AS NOTED

INCHES

MILLIMETERS

MODEL

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DATE: NOV 29, 2012
TIME: PRC
DATE: NOV 29, 2012
TIME: SAN

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TITLE
BOARDMOUNT HEADER,
.05 X .05 PITCH, L/E,
452 SERIES

CAGE NUMBER: D78-5100-2437-1
SIZE: F
DRAWING NO.: 78-5100-2437-1
REV.: F

MODEL: SHT 4 OF 4

78-5100-2437-1
DRAWING NUMBER
F
REVISION
AM UTC-05:00
9:06
F.1 9/24/2014

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