

Surface
SMT
Mount

LOW PROFILE SOCKET CLM SERIES

SPECIFICATIONS

For complete specifications see www.samtec.com?CLM

Insulator Material:
Black Liquid Crystal Polymer



Contact Material:
Phosphor Bronze

Current Rating:

1.5A @ 80°C ambient

Operating Temp Range:
-65°C to +125°C

Plating:

Au over 50µ" (1,27µm) Ni

Contact Resistance:

15 m max

Insertion Depth:

Top Entry = (1,40mm) .055" min, Bottom Entry = (2,21mm) .087" minimum (Add board thickness for correct post OAL)

Insertion Force:

(Single contact only)
1.5oz (0,42N) average

Normal Force:

40 grams (0,39N) average

Withdrawal Force:

(Single contact only)
.75oz (0,21N) average

Max Cycles:

100 with 10µ" (0,25µm) Au

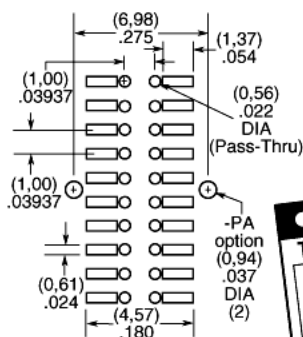
Note: Some lengths, styles and options are non-standard, non-returnable.

Processing:

Max Processing Temp:
230°C for 60 seconds

SMT Lead Coplanarity:
(0,10mm) .004" max (02-25)
(0,15mm) .006" max (26-50)

Suggested PCB Layouts:
For reference only. Please contact Samtec or go to www.samtec.com?CLM for recommended PCB layout.

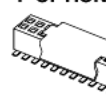


Board fixturing may be required to assure proper alignment for pass-through applications.

Mates with:
FTM, FTMH, MW

OPTIONS

-P OPTION



-TR OPTION



APPLICATION SPECIFIC OPTION

Polarized option and alignment pins available. Call Samtec.



High reliability
Tiger-Claw
contacts

Available with optional
pick-and-place pads

Low profile

Surface
Mount

(1,00mm) .03937" micro pitch

Suitable for
pass-through
applications

CLM

- 1

NO. PINS
PER ROW

- 02

PLATING
OPTION

- D

OPTIONS

02 thru 50

-F
= Pre-plated
Gold flash on contact,
Tin on tail

-L
= Pre-plated
10µ" (0,25µm)
Gold on contact,
Tin on tail

-BE
= Bottom Entry
(Required for
bottom entry
applications)

-K
= (3,50mm) .138"
DIA Polyimide film
Pick & Place Pad
(7 positions
minimum)

-P
= Pick & Place Pad
(7 positions
minimum)
Not always
necessary for
auto placement.
See Flex
Processing.

-PA
= Pick & Place
Pad with integral
Alignment Pin

-TR
= Tape & Reel

TAPE & REEL AVAILABILITY

No tooling charges.
125 piece minimum order.
Order any quantity above minimum.
In-house design, manufacture.
Quick turn-around.

Call Samtec for specifications
and ordering information.

PIN/ROW	A
04-15	(3,56) .140
16-50	(7,11) .280



Due to technical progress, all designs, specifications and components are subject to change without notice.

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SAMTEC USA • Tel: 1-800-SAMTEC-9 or 812-944-6733 • Fax: 812-948-5047
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REV. AL

UNLESS OTHERWISE NOTED
DIMENSIONS ARE IN INCHES [MILLIMETERS ARE IN BRACKETS]

TOLERANCES ARE:

ONE PLACE DECIMALS $\pm .1[2.54]$
TWO PLACE DECIMALS $\pm .01[.25]$ THREE PLACE DECIMALS $\pm .005[.127]$
FOUR PLACE DECIMALS $\pm .0020[.051]$ ANGLES
 $\pm 2^\circ$ TITLE: LOW PROFILE
1mm X 1mm
DOUBLE ROW BODY

DWG NO:

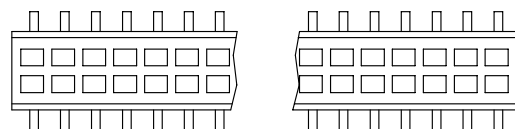
CLM-1XX-XX-X-D-XX
SHEET 1 OF 2DO NOT SCALE
FROM THIS PRINT

FIG. 2

(SAME AS FIG 1 EXCEPT INSULATOR)

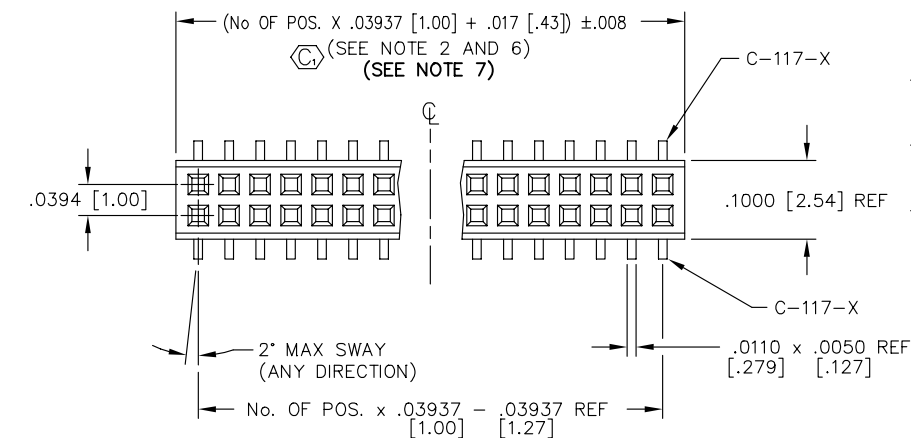


FIG. 1

CLM-1XX-XX-X-D-XX

No. OF POSITIONS/ ROW
-02 THRU -50

LEAD STYLE SPEC

-02: SURFACE MOUNT
(USE C-117-X)

PLATING SPEC

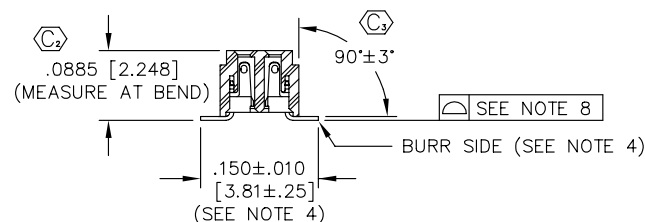
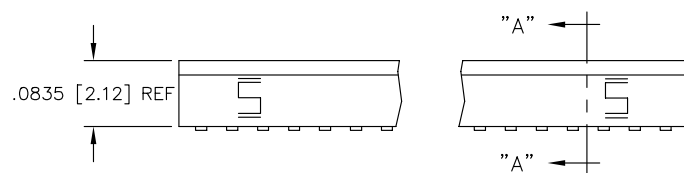
-F: FLASH GOLD IN CONTACT AREA
TIN ON REMAINDER
(PRE-PLATED CONTACT)
-L: .000010 GOLD IN CONTACT AREA
TIN ON REMAINDER
(PRE-PLATED CONTACT)
-G: .000010 GOLD OVER ENTIRE
CONTACT
(POST-PLATED CONTACT)

BODY SPEC

-D: DOUBLE ROW
(USE CLM-XX-D)

OPTIONS

- P: PICK & PLACE PAD
(AVAILABLE ON POS. 7 THRU 50 ONLY)
(SEE FIG 3, SHT 2)(USE MPP-04)
- TR: TAPE & REEL
- BE: BOTTOM ENTRY ONLY
(SEE FIG 2)(USE CLM-XX-DBE-XX)
- PA: PICK & PLACE PAD W/ ALIGNMENT PINS
(SEE FIG 4, SHT 2)
(USE PPP-39-E-4-15 FOR EVEN
POS. 4 THRU 14, USE PPP-39-E-16-50
FOR EVEN POS. 16 THRU 50)
(USE PPP-39-O-4-15 FOR ODD
POS. 5 THRU 15, USE PPP-39-O-16-50
FOR ODD POS. 17 THRU 49)
- A: ALIGNMENT PIN (USE CLM-XX-D-XX)
(SEE FIG. 5, SHT 2)
- K: POLYAMIDE FILM PAD
(AVAILABLE ON POS. 7 THRU 50 ONLY)
(.005 [.13] THICKNESS WITH SILICONE
ADHESIVE)(SEE FIG 6, SHT 2)
(USE K-500-300)



SECT "A-A"

NOTES:

1. MINIMUM PUSHOUT FORCE: .5 LB.
2. WILL LOSE A POSITION FOR EVERY CUT MADE ON A SOCKET STRIP.
3. POSITIONS -05 THROUGH -50 ARE TO BE TUBED. POSITIONS -02 THRU -04 TO BE LAYER PACKAGED ONLY.
4. SHEAR TAILS TO DIMENSIONS SHOWN, .003 MAX SHEAR BURR.
5. PARTS TO BE SYMMETRICAL ABOUT C.
6. CUT FLASH TO BE .010 [.25] MAX WITH NO FLASH ALLOWED IN HOLES OR EXTENDING BELOW LEADS.
7. ENDWALL AFTER CUTTING: .0155±.0025 [.398±.064]
8. COPLANARITY TO BE .0040 FOR POSITIONS 2-25 & .0060 FOR POSITIONS 26-50.

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MATERIAL:
BODY: LIQUID CRYSTAL POLYMER
COLOR: BLACK
TERMINAL:
PHOS BRONZE

MAX FLASH ALLOWED:
.002 [.05]
MAX GATE VESTIGE
ALLOWED: .002 [.05]

PLOT SCALE: 1=.125

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520 PARK EAST BLVD. NEW ALBANY, INDIANA 47150
PHONE (812) 944-6733 P.O. BOX 1147
CODE 55322

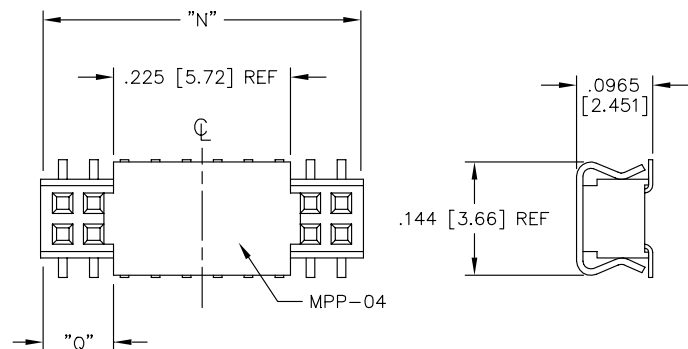
MADE BY:

G. PURVIS 8-10-94

CLM-1XX-XX-X-D-XX
SHEET 1 OF 2

REV. AL

FIG. 3
-P: PICK & PLACE PAD
AVAILABLE ON POSITIONS 7 THRU 50 ONLY



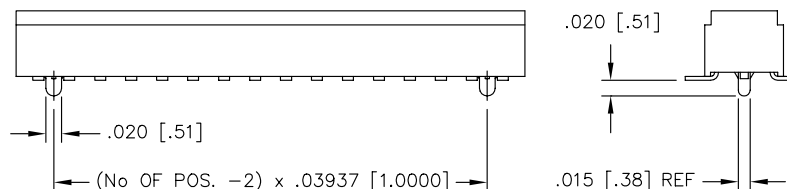
NOTE: "N" = USED MEASURED DIMENSION (REF)
"Q" = $\{("N" - .225 [5.72]) / 2\} \pm .020 [.51]$

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ONE PLACE DECIMALS $\pm .1[2.54]$ THREE PLACE DECIMALS $\pm .005[.127]$ ANGLES $\pm 2^\circ$
TWO PLACE DECIMALS $\pm .01[.25]$ FOUR PLACE DECIMALS $\pm .0020[.051]$

TITLE: LOW PROFILE
1mm X 1mm
DOUBLE ROW BODY

DWG NO:
CLM-1XX-XX-X-D-XX
SHEET 2 OF 2

FIG. 5
-A: MOLDED ALIGNMENT PIN



PACKAGING
SCALE: .75x
(SEE NOTE 3)

TABLE 2 (INCLUDES -D & -D-BE)		
OPTION	TUBE	PLUG
-A, -A-K -P, -A-P	PT-1-24-02-65	TP-33
-PA	PT-1-24-04-36	TP-24
-NONE, -K	PT-1-24-01-50	TP-33

FIG. 4
-PA: PICK & PLACE PAD WITH ALIGNMENT PINS

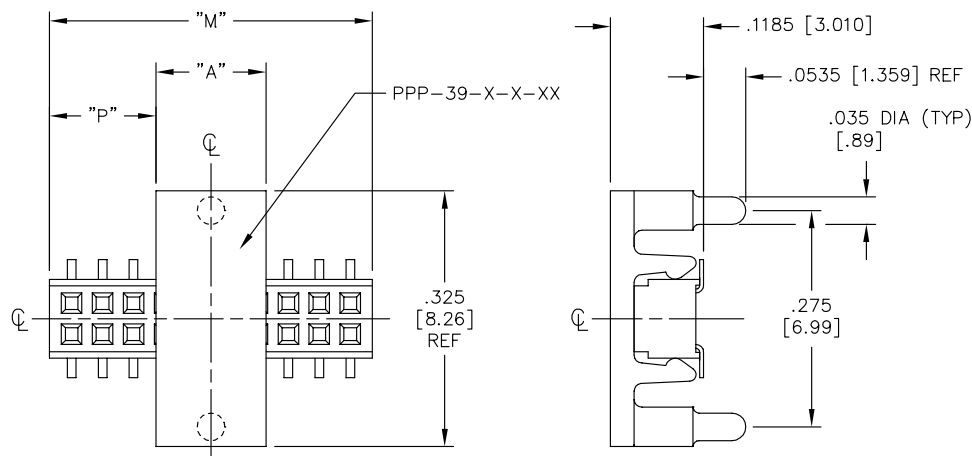
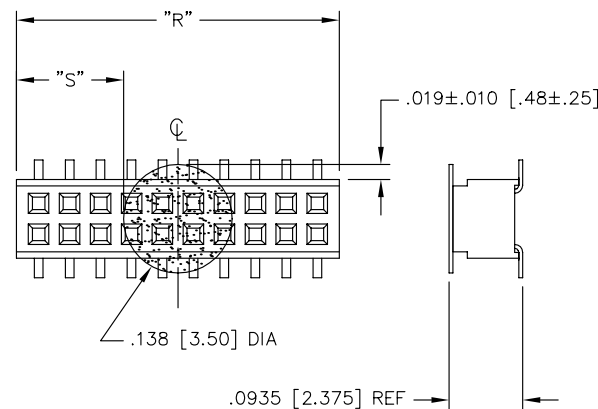


TABLE 1			
POS/ROW	"A"	"M"	"P"
4-15	.140 [3.56] REF	USED MEASURED DIMENSION (REF)	$\{("M" - "A") / 2\} \pm .010 [.25]$
16-50	.280 [7.11] REF		

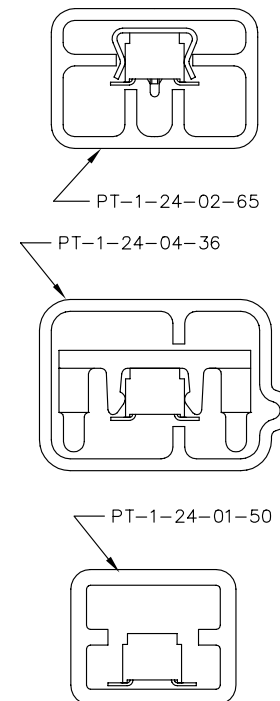
TABLE 3		
POSITIONS		PAD
EVEN	4 - 14	PPP-39-E-4-15
	16 - 50	PPP-39-E-16-50
ODD	5 - 15	PPP-39-O-4-15
	17 - 49	PPP-39-O-16-50

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FIG. 6
-K: POLYAMIDE FILM PAD
AVAILABLE ON POSITIONS 7 THRU 50 ONLY



NOTE: "R" = USED MEASURED DIMENSION (REF)
"S" = $\{("R" - .138 [3.50]) / 2\} \pm .020 [.51]$



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520 PARK EAST BLVD. NEW ALBANY, INDIANA 47150
PHONE (812) 944-6733 P.O. BOX 1147
CODE 55322

PLOT SCALE: 1=.125

MADE BY:
BRATCHER 6-2-97

EXISPROD\ASSEMBLY\1MM
CLM-ASM2

CLM-1XX-XX-X-D-XX
SHEET 2 OF 2