



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Horizontal Plug: BTB

10-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to butt the boards up together to minimize separation. Availability of both white and black insulation colors make them perfect for lighting as well as industrial applications. With sizes from 2p-6p, these high reliability connectors boast gold plated beryllium copper receptacle contacts for harsh environments.

## APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

## FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences

## ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

## ENVIRONMENTAL

- Operating Temperature:  
-40°C to +125°C

## MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

## HOW TO ORDER

10

Plug

9159

Series

00X

Number of Ways

Code	No of Ways	Details
002	2	Page 2
003	3	Page 3
004	4	Page 4
005	5	Page 5
006	6	Page 6

Optional Retaining Clip

Page 7

1

2 Part PCB Strip Connector

01

Connector Pitch

01 = 3mm

9


Color/Approval

Code	Color	Approval
9	White	UL Approved

16

Plating Option

Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over



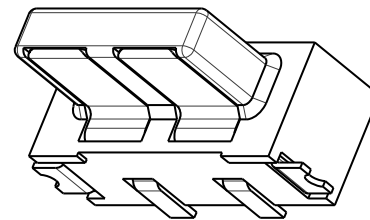
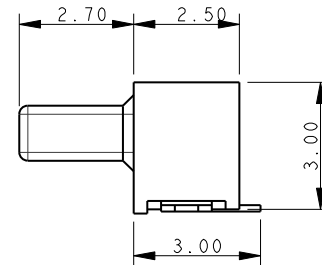
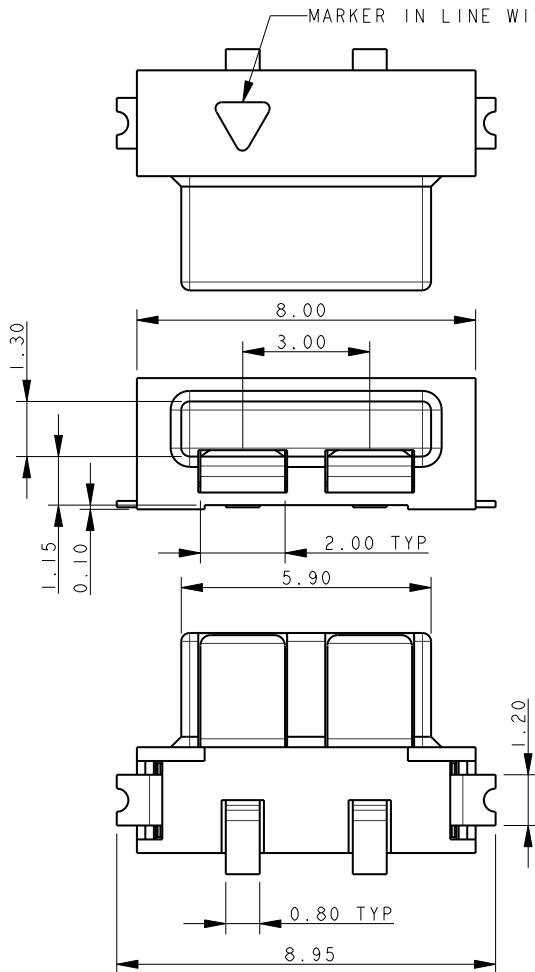


Certification: UL File #E90723

# Horizontal Plug: BTB

10-9159

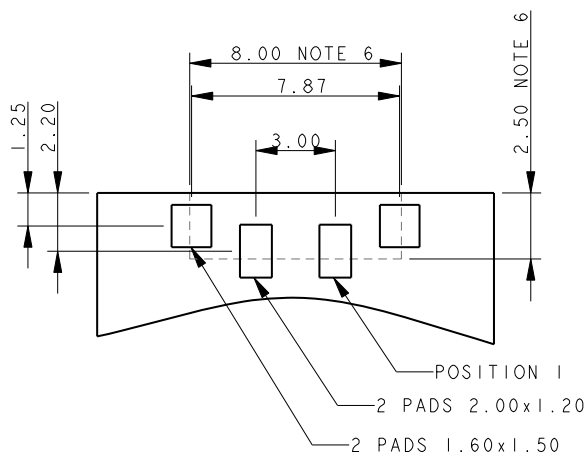
## PLUG 2 WAY 2 PART PCB STRIP CONNECTOR



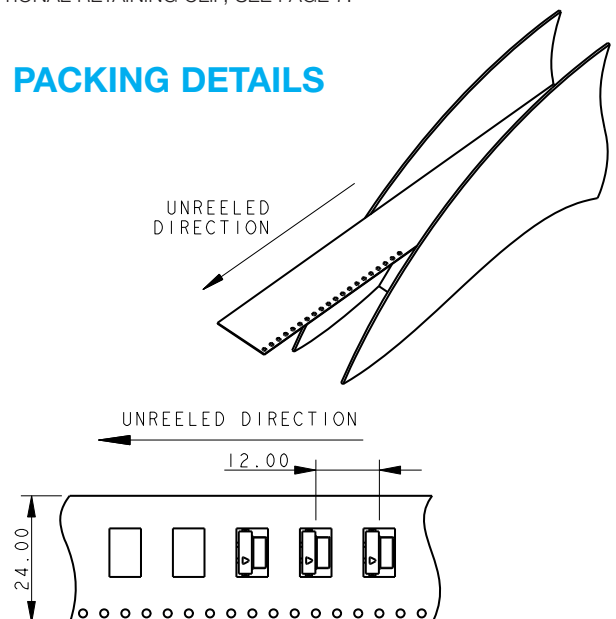
### NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 7.

## 2 WAY PCB BOARD LAYOUT



## PACKING DETAILS

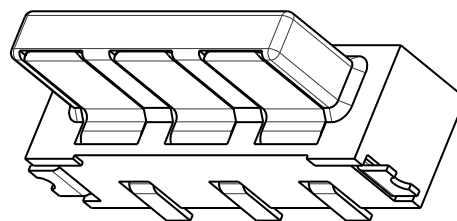
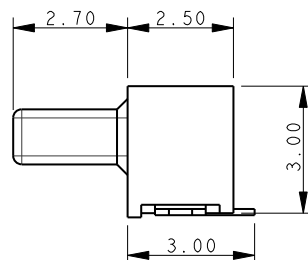
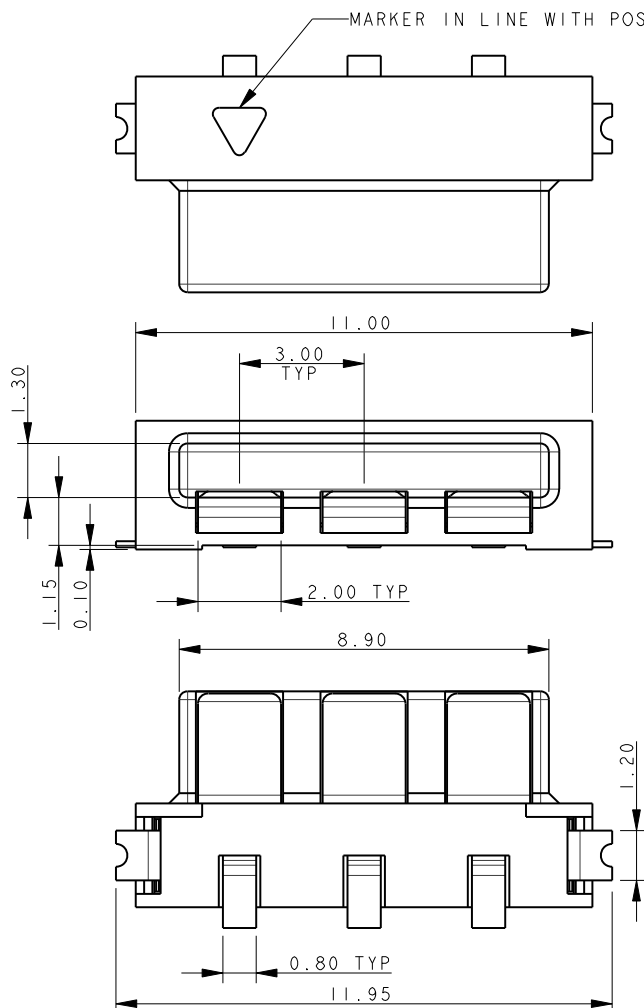




# Horizontal Plug: BTB

10-9159

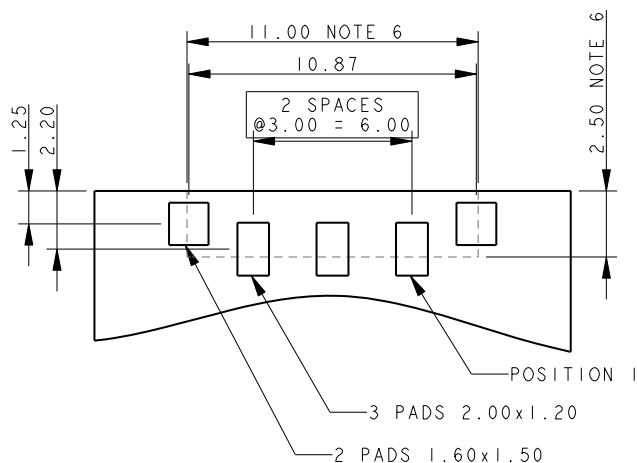
## PLUG 3 WAY 2 PART PCB STRIP CONNECTOR



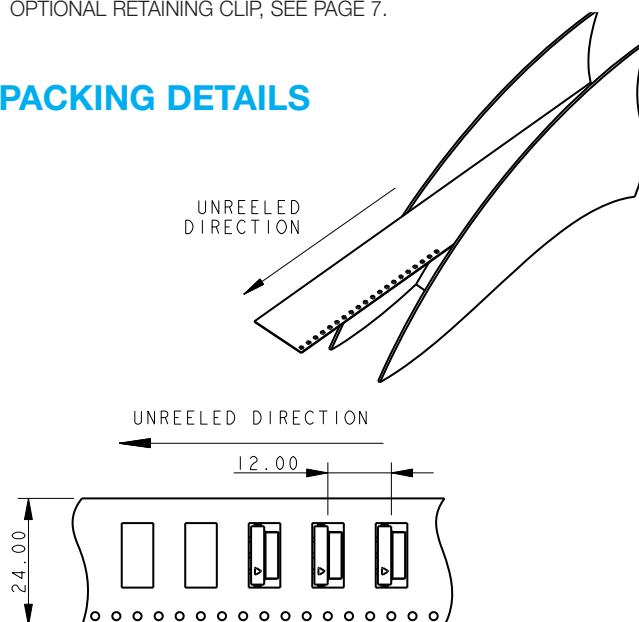
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4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 7.

## 3 WAY PCB BOARD LAYOUT



## PACKING DETAILS



**10-9159**

Technical drawing of a rectangular component, showing three views: top, front, and side.

**Top View:**

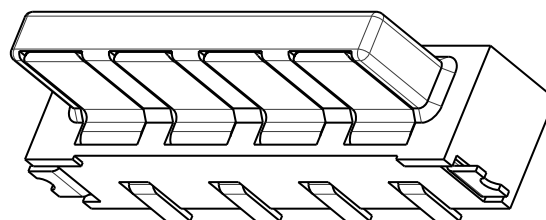
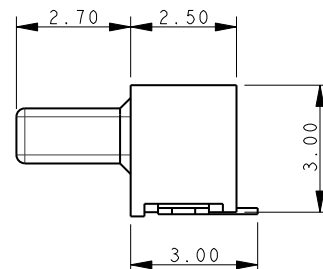
- Overall width: 14.00
- Overall height: 11.90
- Spacing between internal features: 3.00 TYP
- Marker in line with position 1 (indicated by an arrow pointing to a triangle).

**Front View:**

- Overall width: 14.95
- Overall height: 1.20
- Spacing between internal features: 0.80 TYP

**Side View:**

- Overall width: 1.30
- Overall height: 1.15
- Overall depth: 0.10



14.00 NOTE 6

13.87

3 SPACES  
@ 3.00 = 9.00

1.25

2.20

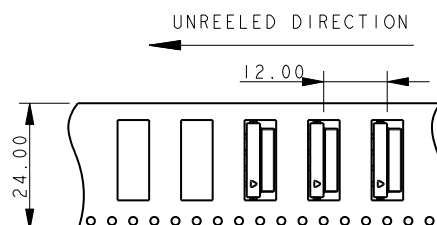
2.50 NOTE 6

POSITION

4 PADS 2.00x1.20

2 PADS 1.60x1.50

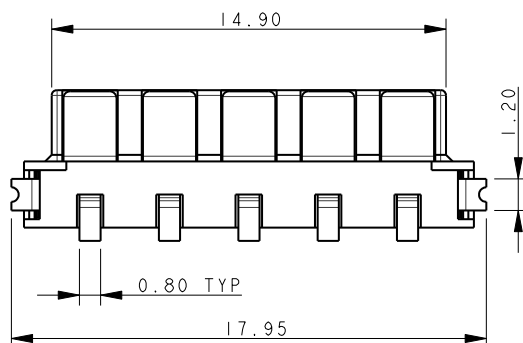
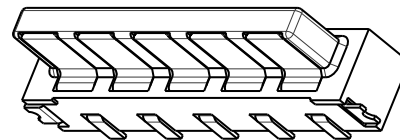
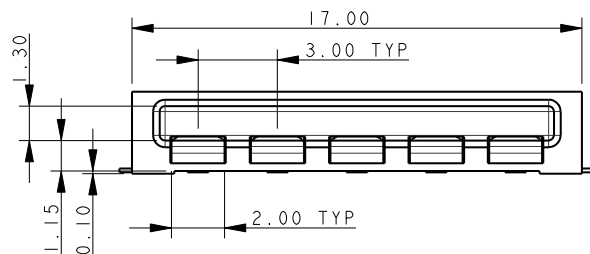
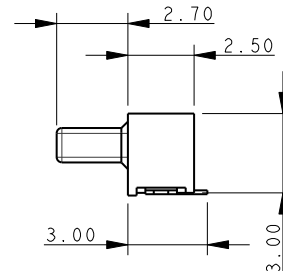
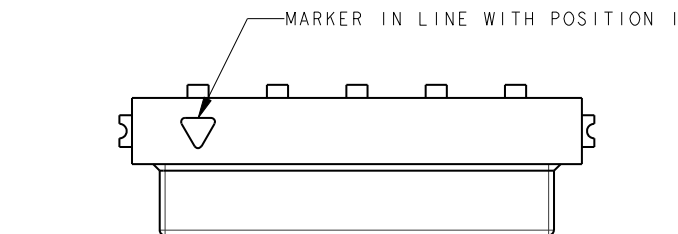
UNREELED DIRECTION



# Horizontal Plug: BTB

10-9159

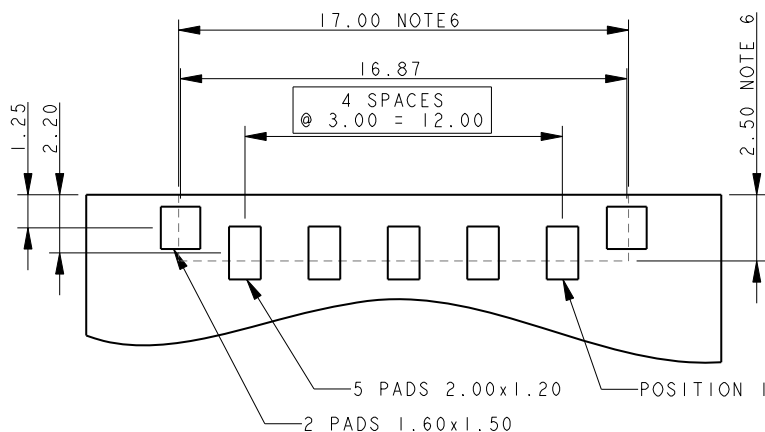
## PLUG 5 WAY 2 PART PCB STRIP CONNECTOR



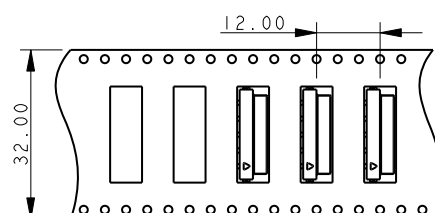
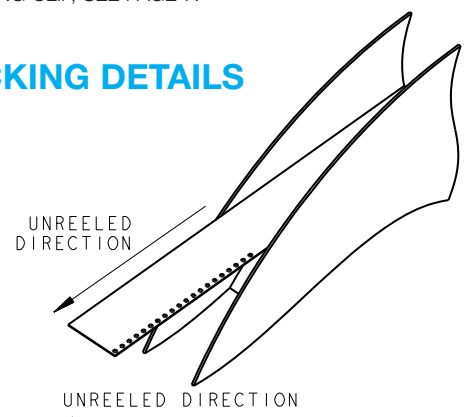
### NOTES:

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4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 7.

## 5 WAY PCB BOARD LAYOUT



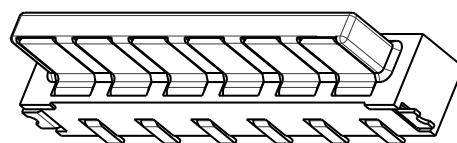
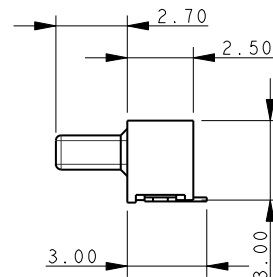
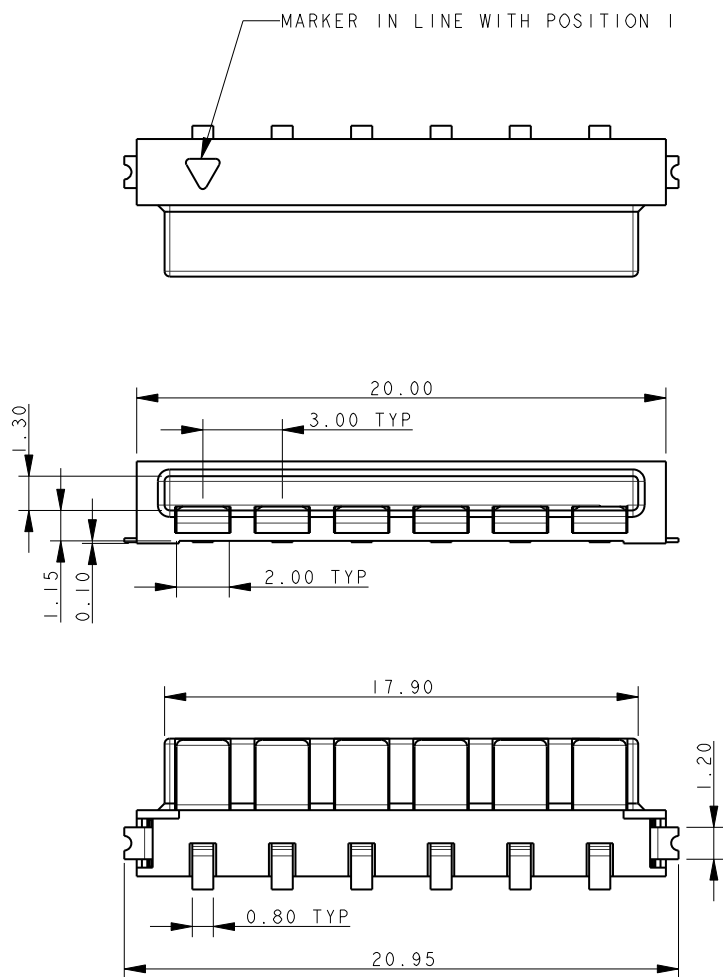
## PACKING DETAILS



# Horizontal Plug: BTB

10-9159

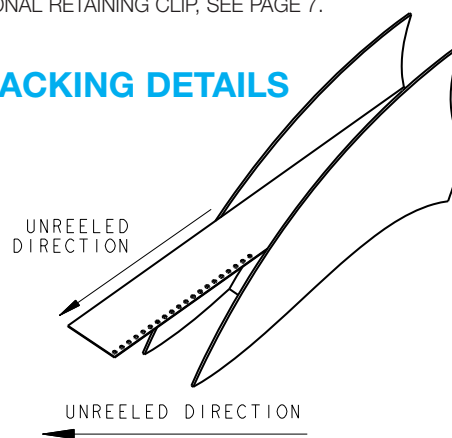
## PLUG 6 WAY 2 PART PCB STRIP CONNECTOR



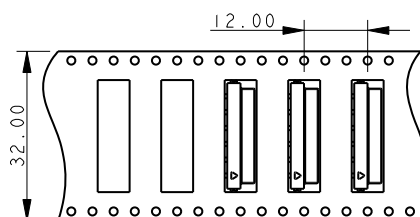
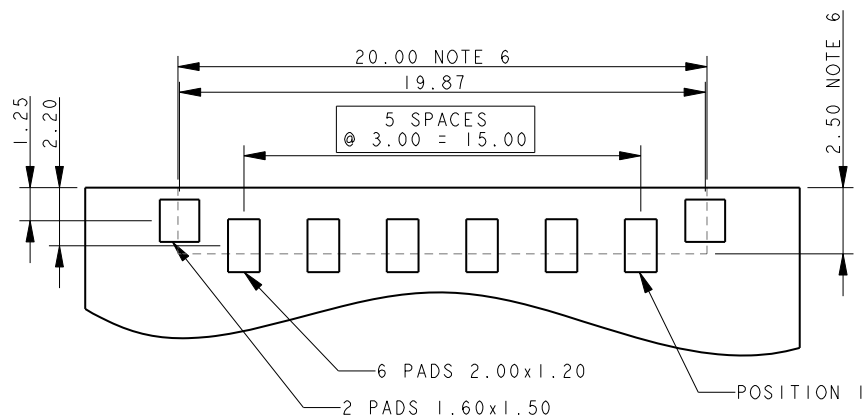
### NOTES:

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2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
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6. OUTLINE OF CONNECTOR.
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8. OPTIONAL RETAINING CLIP, SEE PAGE 7.

### PACKING DETAILS



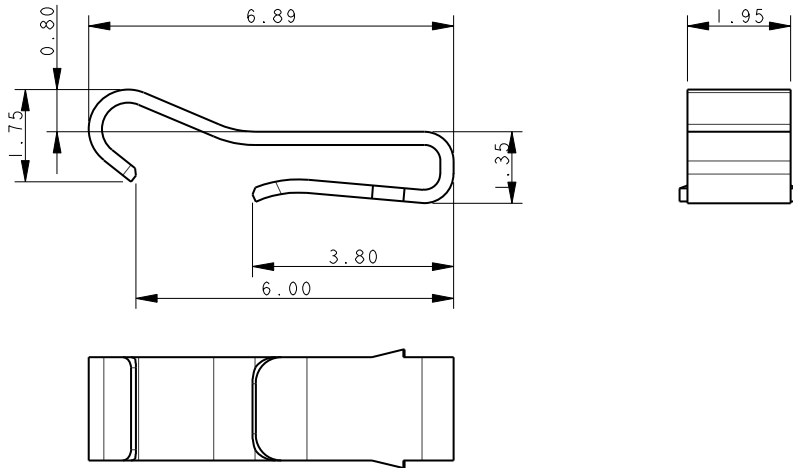
### 6 WAY PCB BOARD LAYOUT



# Horizontal Plug: BTB

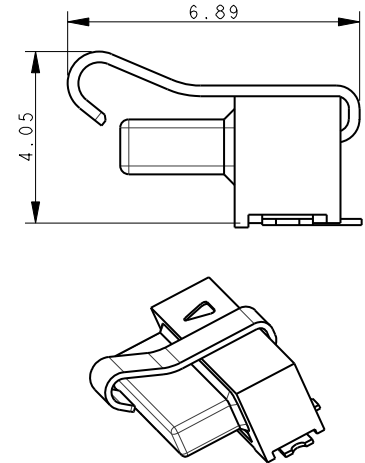
10-9159

## 80-9159-4200-00-000 ACCESSORY RETAINING CLIP



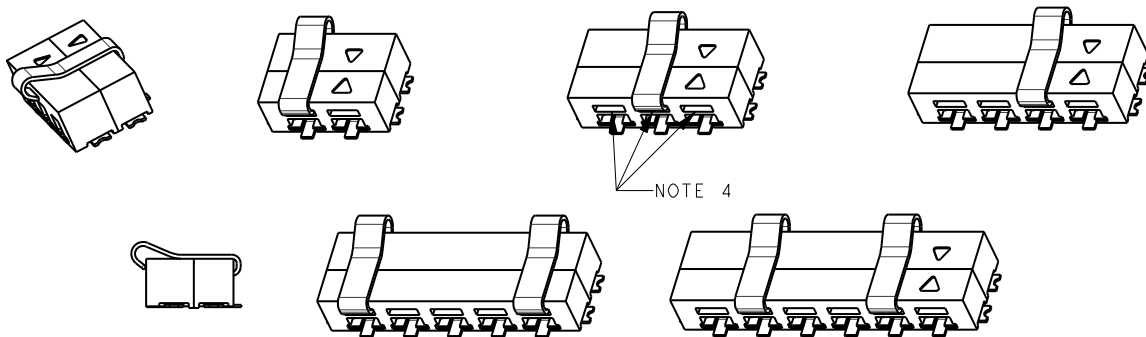
## PLUG ASSEMBLY FOR REFERENCE ONLY

CLIP INSERTED INTO  
10-9159-00X-101-X06



## MATED ASSEMBLY – FOR REFERENCE ONLY

10-9159-00X-101-X06 MATED WITH 20-9159-00X-X06



Description	# of Positions	Part Number	UL File #
Horizontal Plug w/pre-installed locking clip	2	58 9159 002 000 015	E90723
Horizontal Plug w/pre-installed locking clip	3	58 9159 003 000 015	E90723
Horizontal Plug w/pre-installed locking clip	4	58 9159 004 000 015	E90723
Horizontal Plug w/pre-installed locking clips	5	58 9159 005 000 015	E90723
Horizontal Plug w/pre-installed locking clips	6	58 9159 006 000 015	E90723

### NOTES:

1. CLIP TO RETAIN MATED PAIR PLUG AND SOCKET.
2. MATERIAL: STAINLESS STEEL.
4. TAIL INSERTED INTO SLOT OF 9159 2 PART PLUG (10-9159-00X-101-006). LEADING EDGE CLIPS OVER SOCKET.
5. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
6. RECOMMENDED 1 CLIP IN 2, 3 AND 4 WAY. 2 CLIPS IN 5 AND 6 WAY. POSITIONS AT CUSTOMER DISCRETION.