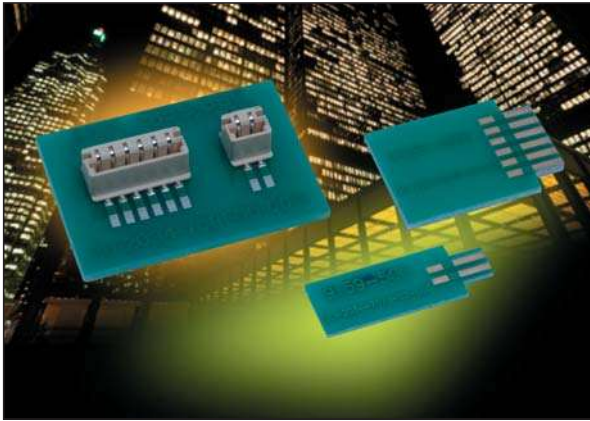


# Vertical Top Entry Card Edge: BTB



00-9159



AVX continues to develop unique connectors to fill the gap in the industrial market, specifically as it relates to low pin count requirements. The newest addition to AVX's broadening line of one piece card edge connectors is the 2p-6p top entry version which complements the bottom entry version released last year. This new configuration will allow small perpendicular daughter cards to be plugged in from the top side of the main board. The single connector option offers an alternative to the more traditional and costly two piece solution.

This small connector is packed with several key features that provide significant functionality in a broad range of robust industrial applications. The contact system is gold plated for enhanced reliability, signal integrity and full 2A/contact current rating. The PCB board opening is dual slotted to accept either a 0.8mm or 1.6mm thick daughter card within the same connector body.

## APPLICATIONS

- Provides a one piece connector solution for low pin count perpendicular PCB mating in industrial applications
- Facilitates easy plug ability for small module/programming cards

## FEATURES AND BENEFITS

- 2 Amp per contact current rating meets robust industrial application requirements
- Removable pick and place cap supports robotic placement and SMT termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Accepts both 0.8mm and 1.6mm PCB's for added design options

## ELECTRICAL

- Current Rating: 2 Amps / Contact
- Voltage Rating: 300 VAC

## ENVIRONMENTAL

- Operating Temperature: -40°C to +120°C

## MECHANICAL

- Insulator Material: Nylon UL94VO
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability 10 Cycles

## HOW TO ORDER

**00**  
Prefix

**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

**551**  
Single Part PCB Strip Connector  
551 = Top Mounting on Board Edge Card

**9**  
Insulator Color

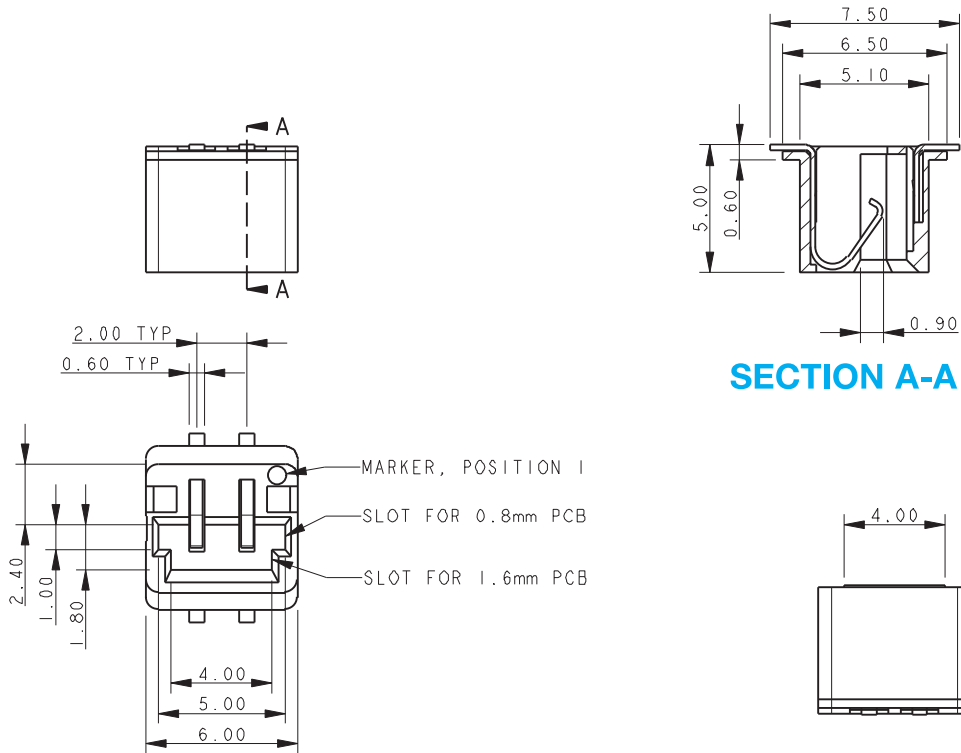
Code	Color	Application
9	White	UL Approved Standard

**06**  
Plating Option  
06 = Gold Plating on Nose with Tin on Tails

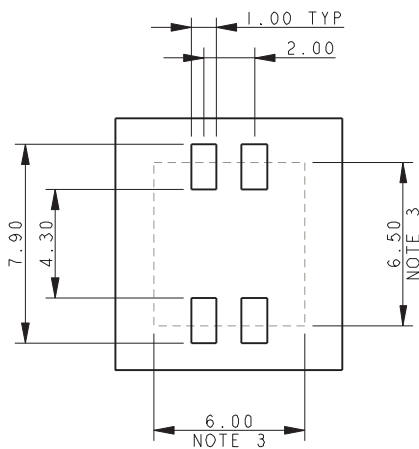
Certification: UL File #E90723



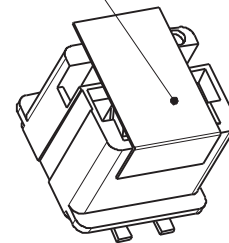
## 2 WAY TOP MOUNTING EDGE CARD CONNECTOR



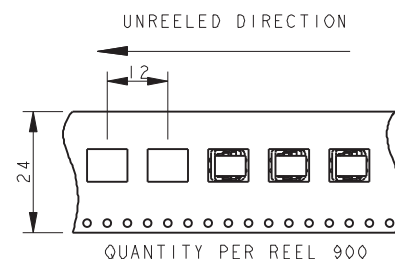
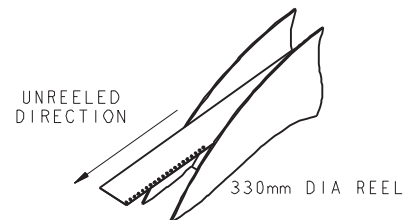
### SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE  
REMOVE AFTER SOLDERING



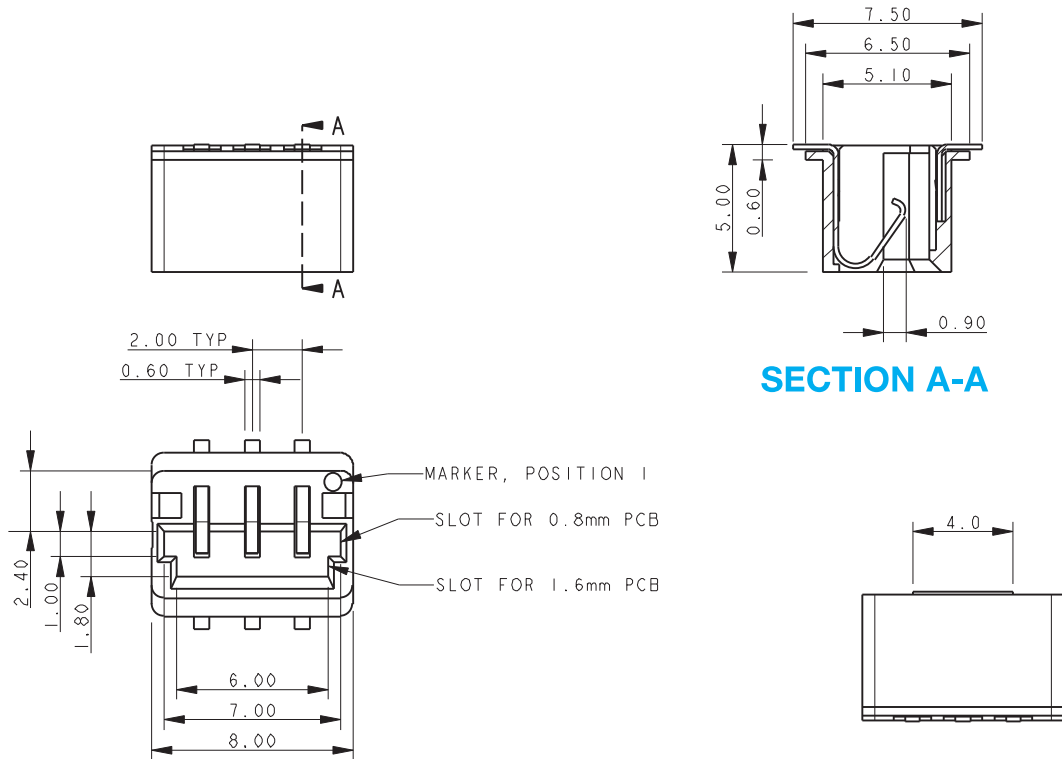
### PACKING DETAILS



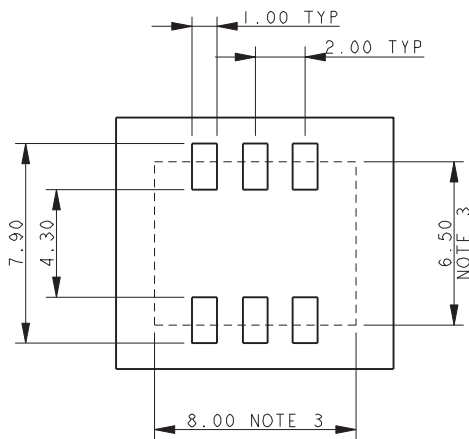
#### NOTES:

- 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 2 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
- FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 7.
- CONNECTOR OUTLINE.
- ALL DIMENSIONS  $\pm 0.20$  UNLESS TOLERANCE SPECIFIED.
- INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 1.
- CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
- BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
- PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
- CONTACT TAILS COPLANARITY WITHIN 0.10.
- UL PRODUCT REFERENCE E90723 (US AND CANADA).

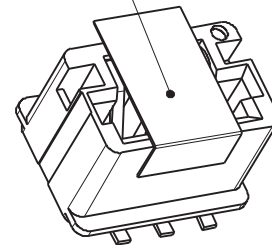
## 3 WAY TOP MOUNTING EDGE CARD CONNECTOR



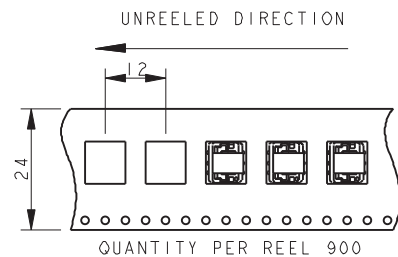
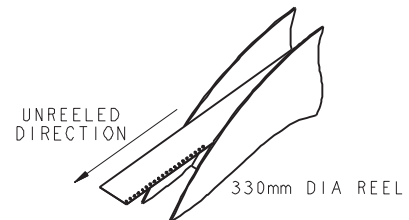
### SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE  
REMOVE AFTER SOLDERING

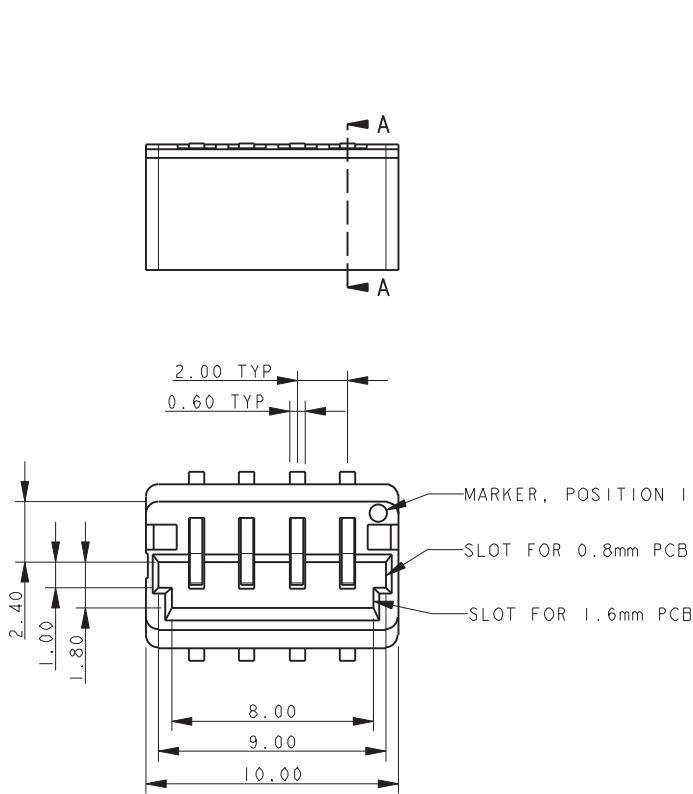


### PACKING DETAILS

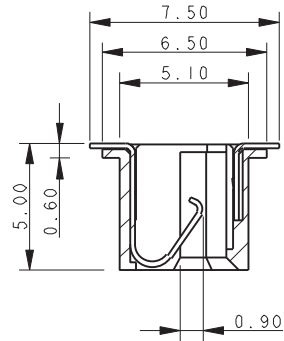
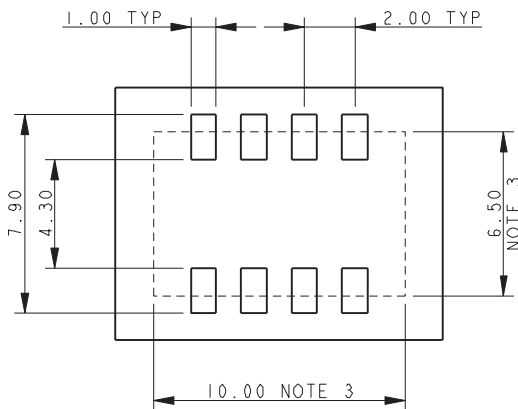


1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 3 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 7.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS  $\pm 0.20$  UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 1.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPLANARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

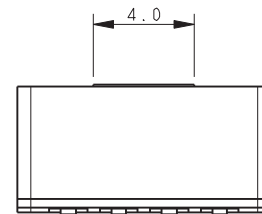
## 4 WAY TOP MOUNTING EDGE CARD CONNECTOR



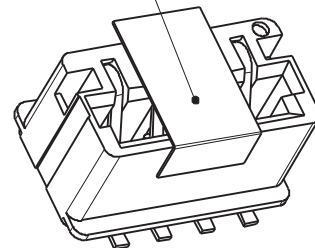
### SUGGESTED PCB LAYOUT



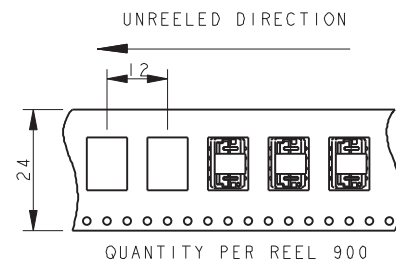
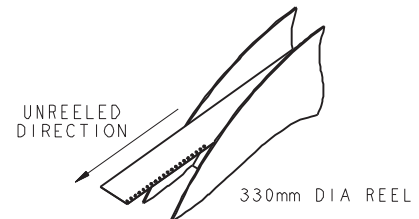
### SECTION A-A



PICK AND PLACE TAPE  
REMOVE AFTER SOLDERING

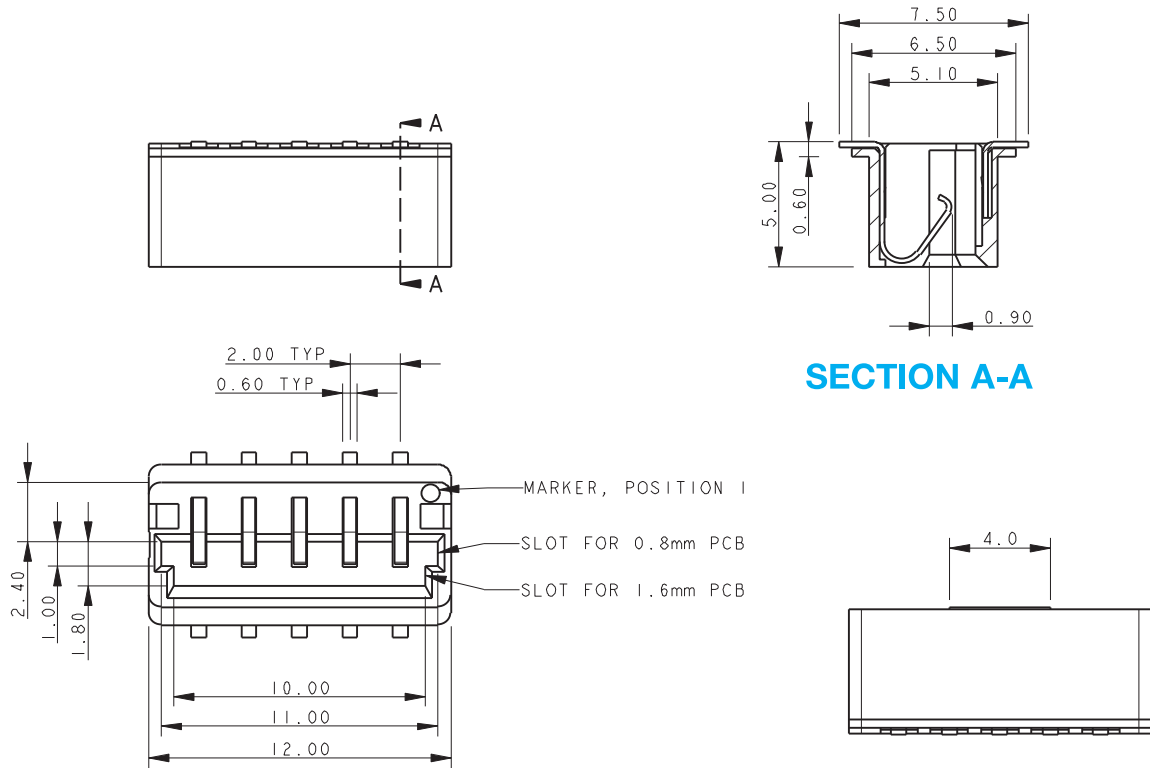


### PACKING DETAILS

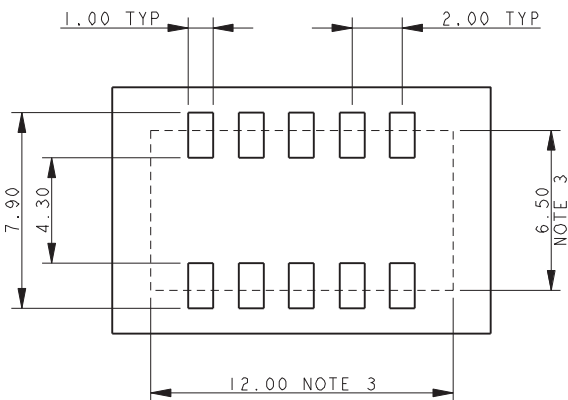


- 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 4 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
- FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 7.
- CONNECTOR OUTLINE.
- ALL DIMENSIONS  $\pm 0.20$  UNLESS TOLERANCE SPECIFIED.
- INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 1.
- CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
- BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
- PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
- CONTACT TAILS COPLINARITY WITHIN 0.10.
- UL PRODUCT REFERENCE E90723 (US AND CANADA).

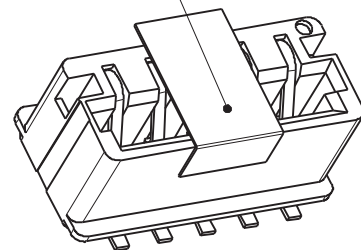
## 5 WAY TOP MOUNTING EDGE CARD CONNECTOR



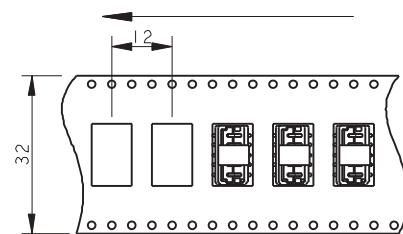
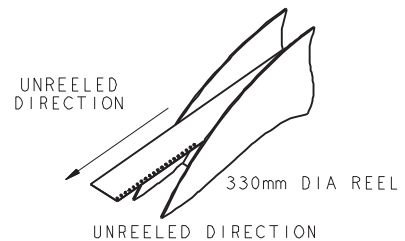
### SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE  
REMOVE AFTER SOLDERING



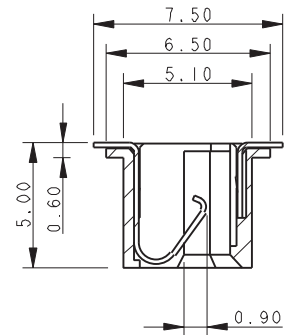
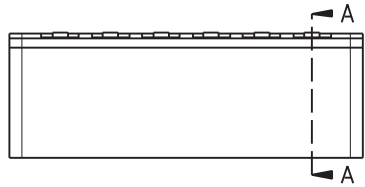
### PACKING DETAILS



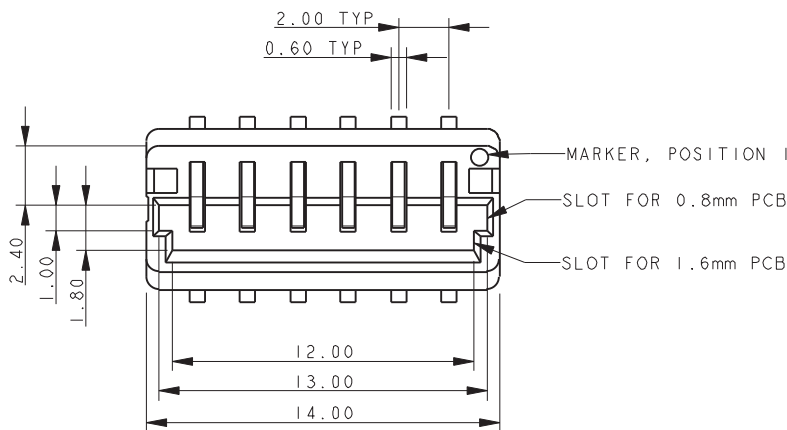
QUANTITY PER REEL 900

1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 5 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 7.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS  $\pm 0.20$  UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 1.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPLANARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

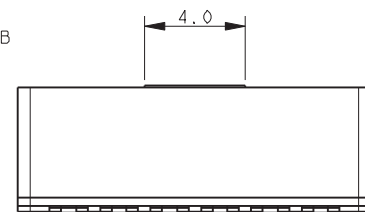
## 6 WAY TOP MOUNTING EDGE CARD CONNECTOR



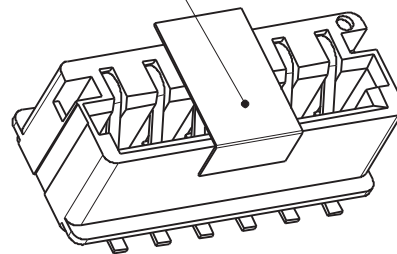
**SECTION A-A**



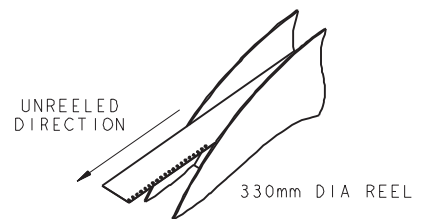
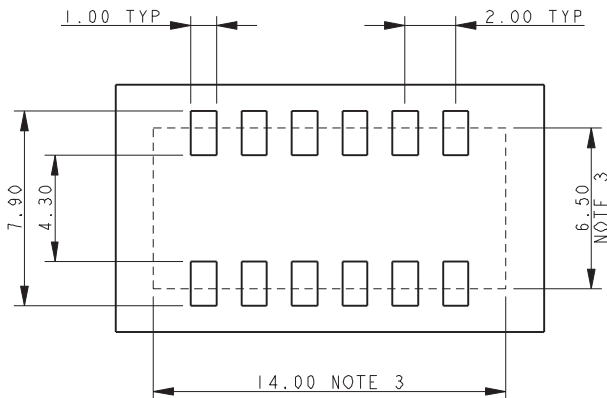
**SUGGESTED PCB LAYOUT**



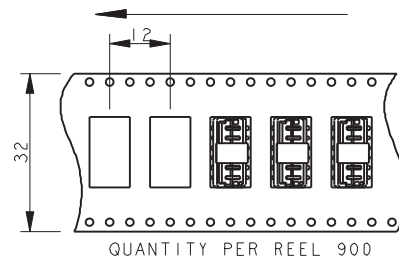
PICK AND PLACE TAPE  
REMOVE AFTER SOLDERING



**PACKING DETAILS**



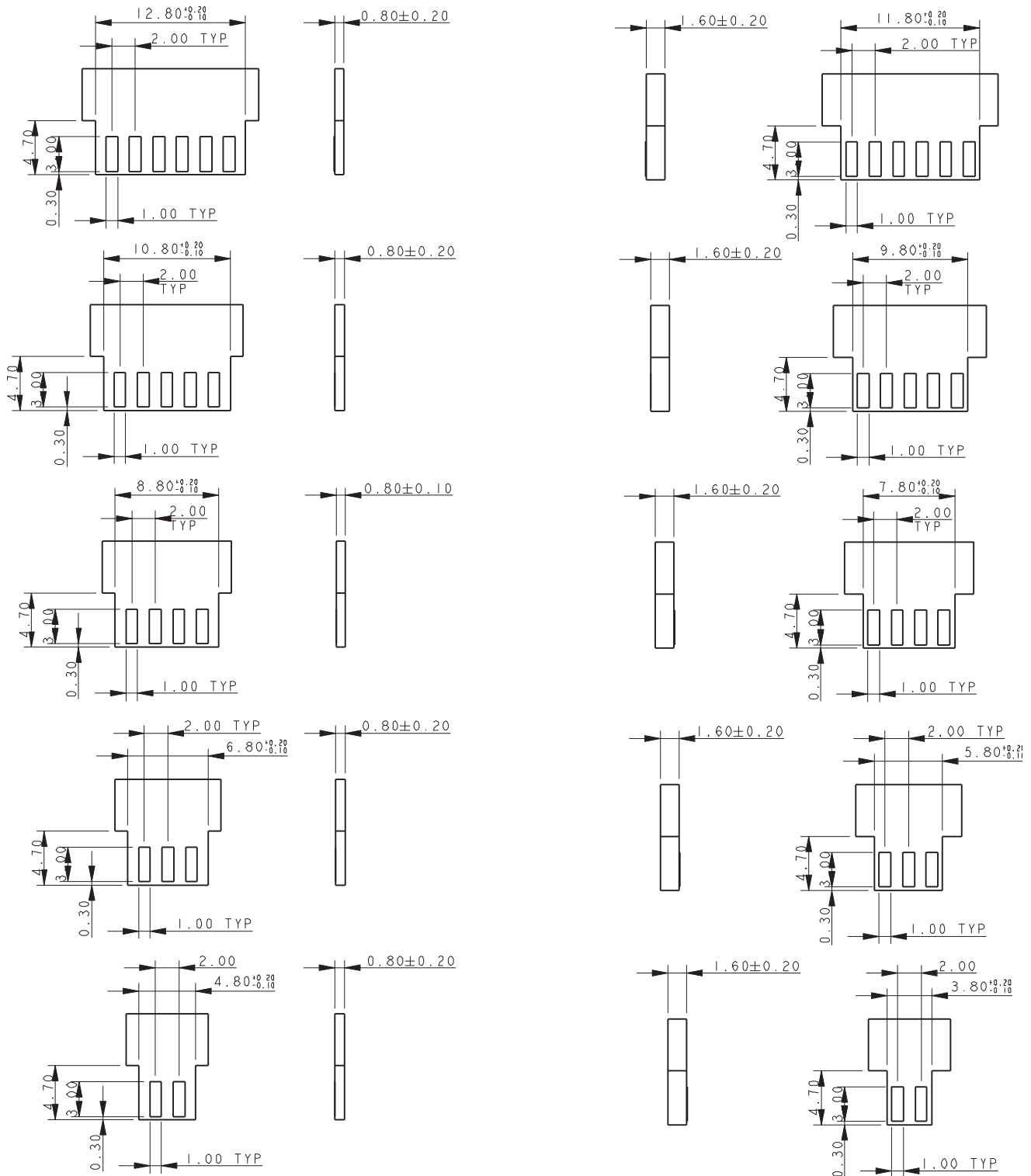
UNREELED DIRECTION



QUANTITY PER REEL 900

1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 6 WAY, FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 7.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS  $\pm 0.20$  UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 1.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPLINARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

### TOP MOUNTING EDGE CARD CONNECTOR – MATING PCB

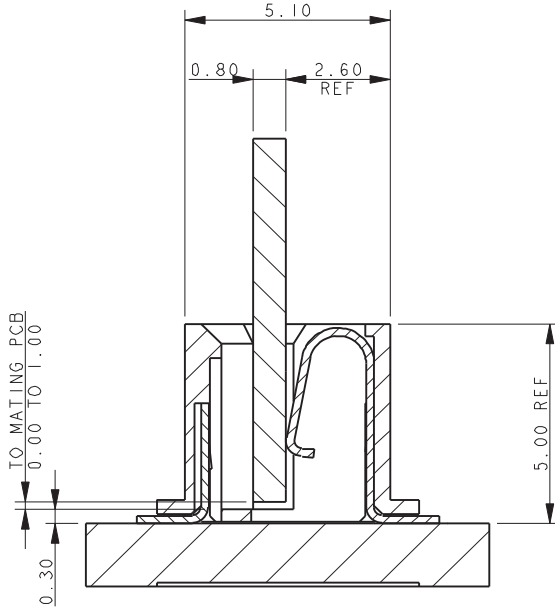


**NOTES:**

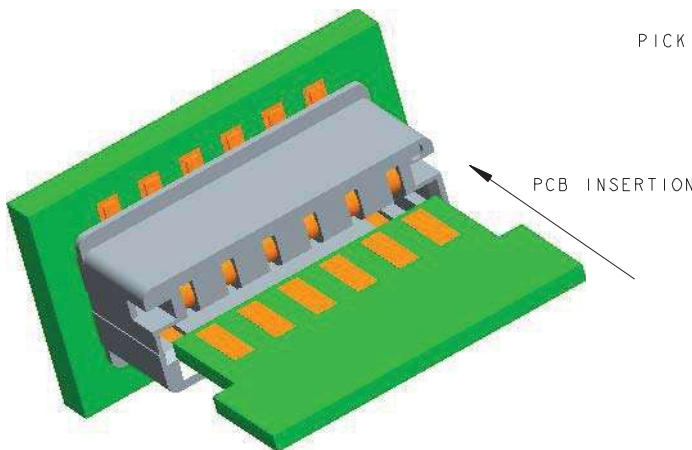
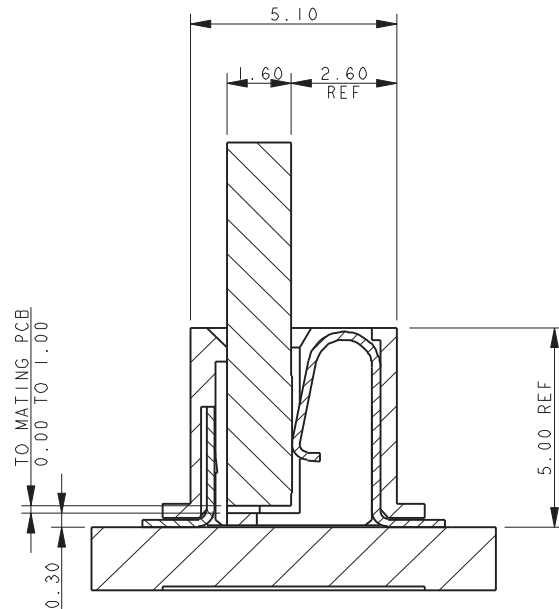
1. CORRECT DIMENSION FOR EITHER 0.80MM OR 1.60MM PCB THICKNESS MUST BE USED.
2. THICKNESS OF PCB INCLUDES ALL LAYERS INCLUDING COPPER AND PLATING.
3. PADS TO BE PLATED GOLD OVER NICKEL UNDERCOAT.
4. GENERAL TOLERANCE  $\pm 0.10$  UNLESS STATED.

## TOP MOUNTING EDGE CARD CONNECTOR ASSEMBLY

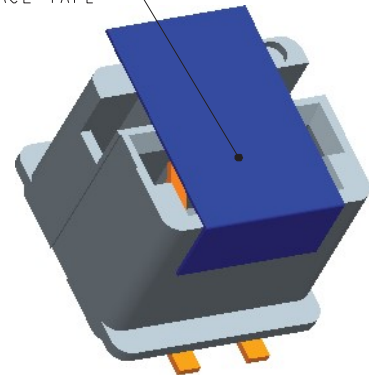
### CONNECTOR/PCB ASSEMBLY 0.8mm MATING PCB



### CONNECTOR/PCB ASSEMBLY 1.6mm MATING PCB



SUPPLIED WITH  
PICK AND PLACE TAPE



NOTES:

1. 9159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK, REFER TO PAGE 7 FOR MATING PCB DETAILS.
3. CONNECTOR SURFACE MOUNTING ON PCB.
4. PAD DETAILS ON THE MATING PCB ALLOW CONTACT TO BE MADE IN ANY POSITION FORM THE STOP FACE UP TO 1MM FROM THE STOP FACE.
5. GENERAL TOLERANCE  $\pm 0.20$  UNLESS STATED.