

## INTRODUCTION:

Adam Tech PCA Series Flexible Printed Circuit (FPC) and Flexible Flat Cable (FFC) connectors are ZIF (zero insertion force) connectors designed to provide a fast, easy, reliable method to make a connection of flexible printed circuits to a PCB. Adam Tech's special contact design completely preserves conductor integrity by eliminating all wiping action while making connection. Flex circuitry enters the connector and the connector cap is pressed down to capture the flex circuit producing a stable, high pressure connection. Raising the cap releases the pressure for exchange or replacement of circuitry. This series includes single and dual row versions in thru-hole or SMT mounting in vertical or horizontal orientations.

## FEATURES:

- Superior contact design protects conductors
- High pressure contacts
- Single or dual row versions
- Choice of .3mm, .5mm, .8mm, 1mm & 1.25mm centerlines

## MATING FPC & FFC:

Mates with .3mm, .5mm, .8mm, 1mm & 1.25mm centerline flat flexible circuits with thickness range of 0.1mm to 0.3mm

## SPECIFICATIONS:

### Material:

Hi-Temp Insulator: LCP, Glass reinforced, rated UL94V-0

Insulator color: Natural

Contacts: Phosphor Bronze

### Contact Plating:

Tin over copper underplate overall

### Electrical:

Operating voltage: 100V AC max.

Current rating: .020" Spacing: 0.4 Amps max.

.031" & .039" Spacing: 0.5 Amps max

.049" Spacing: 1 Amp max

Contact resistance: 30 mΩ max. initial

Insulation resistance: 500 MΩ min.

Dielectric withstanding voltage: 500V AC for 1 minute

### Mechanical:

Insertion Force: 0 oz max

Withdrawal Force: 13 oz min

### Temperature Rating:

Operating temperature: -40°C to +85°C

Soldering process temperature: 260°C

### PACKAGING:

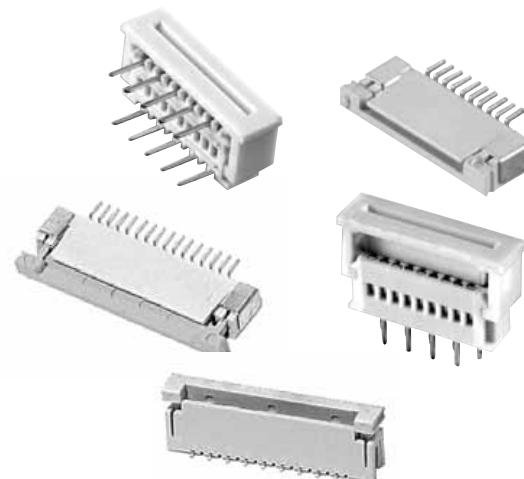
Anti-ESD plastic tubes or Tape and Reel

### APPROVALS AND CERTIFICATIONS:

UL Recognized & CSA Certified, File no. E224053

# ZIF FLEX CIRCUIT CONNECTOR

0.3mm [.012"] CENTERLINE  
0.5mm [.020"] CENTERLINE  
0.8mm [.031"] CENTERLINE  
1.0mm [.039"] CENTERLINE  
1.25mm [.049"] CENTERLINE  
PCA SERIES



## ORDERING INFORMATION

PCA	1	10	V	3	20
<b>SERIES INDICATOR</b>			<b>ENTRY ANGLE</b>		<b>PCB ROW SPACING</b>
PCA = ZIF Flex Circuit Connector			V = Top entry HL = Side entry, lower contact HU = Side entry, upper contact		20 = 2.0mm Leave blank for SMT
<b>TYPE</b>			<b>POSITIONS</b>		<b>FLEX CIRCUIT THICKNESS</b>
			03 thru 30		3 = 0.1mm - 0.3mm (standard for all types)
1	1.25mm centerline thru-hole				
2	1.00mm centerline SMT (body height 2.70mm)				
2B	1.00mm centerline SMT (body height 1.2mm)				
3	1.00mm centerline thru-hole				
4	1.25mm centerline SMT				
5	.8mm centerline SMT				
6	.5mm centerline SMT (body height 2.0mm)				
6A	.5mm centerline SMT (body height 1.5mm)				
6B	.5mm centerline SMT (body height 1.2mm)				
6C	.5mm centerline SMT (body height 1.0mm)				
6F	.5mm centerline SMT (body height 1.0mm)				
7	.3mm centerline SMT				

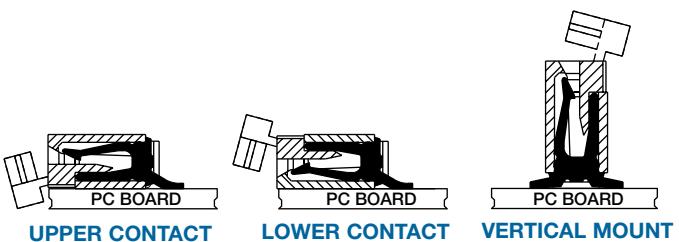
### OPTIONS:

Add designator(s) to end of part number

TR = Tape and reel packaging

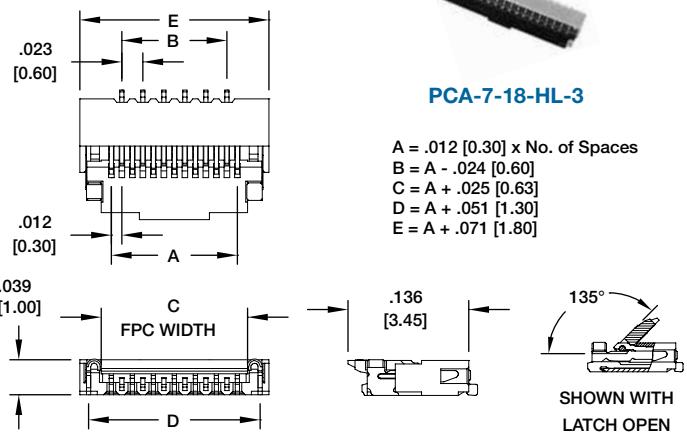


### CONTACT SECTION VIEWS



### PCA-7

#### .3mm (.012") SIDE ENTRY SMT

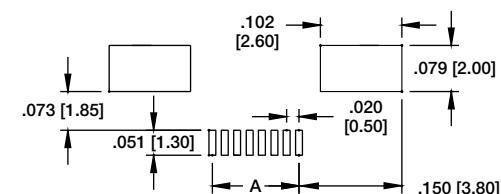
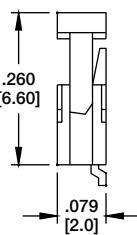
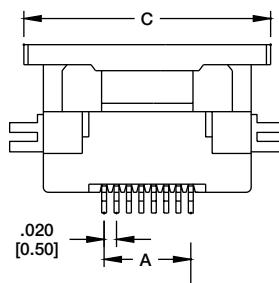
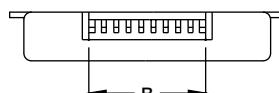


### PCA-6

#### .5mm (.020") SIDE ENTRY SMT



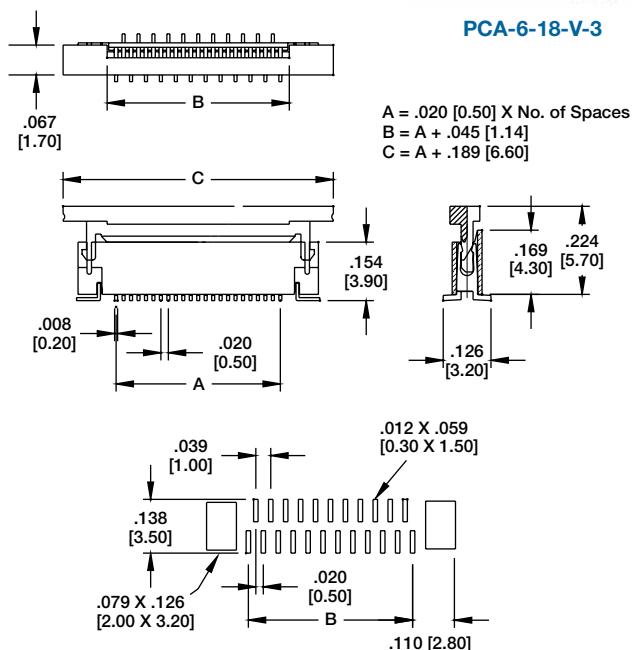
A = .020 [0.50] X No. of Spaces  
 B = A + .045 [1.14]  
 C = A + .189 [6.60]



#### Recommended PCB Layout

### PCA-6

#### .5mm (.020") TOP ENTRY SMT



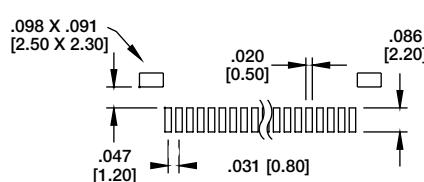
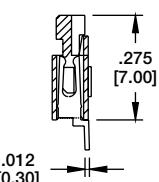
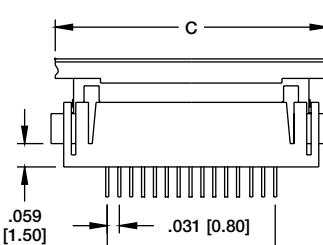
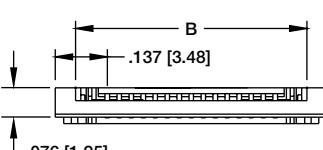
#### Recommended PCB Layout

### PCA-5

#### .8mm (.031") SIDE ENTRY SMT



A = .031 [0.80] X No. of Spaces  
 B = A + .081 [2.05]  
 C = A + .228 [5.80]



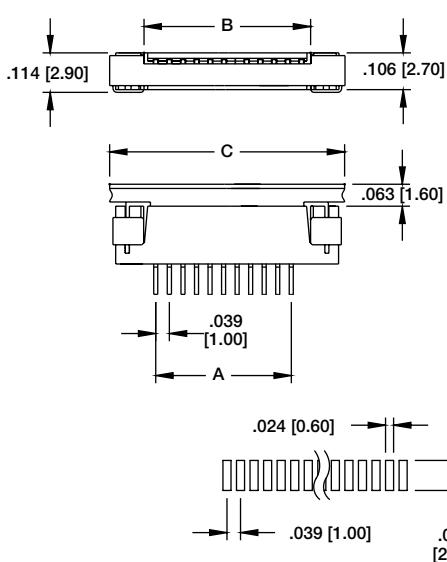
#### Recommended PCB Layout

### PCA-2

1.00mm (.039")

SIDE ENTRY SMT

A = .039 [1.00] X No. of Spaces  
 B = A + .090 [2.30]  
 C = A + .280 [7.10]



PCA-2-10-HU-3

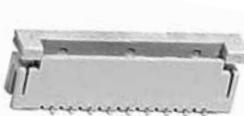
Also Available in 1.2mm & 1.5mm Body heights

Recommended PCB Layout

### PCA-2

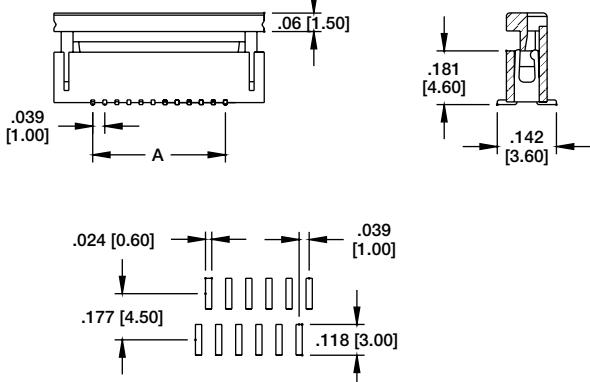
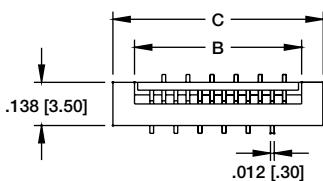
1.00mm (.039")

TOP ENTRY SMT



PCA-2-18-V-3

A = .039 [1.00] X No. of Spaces  
 B = A + .090 [2.30]  
 C = A + .280 [7.10]



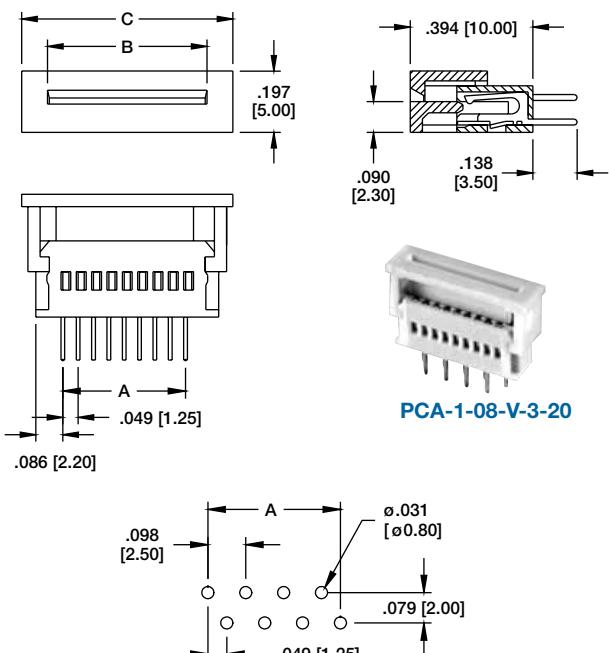
Recommended PCB Layout

### PCA-1

1.25mm (.049")

TOP ENTRY THRU HOLE

A = .049 [1.25] X No. of Spaces  
 B = A + .106 [2.70]  
 C = A + .303 [7.70]



PCA-1-08-V-3-20

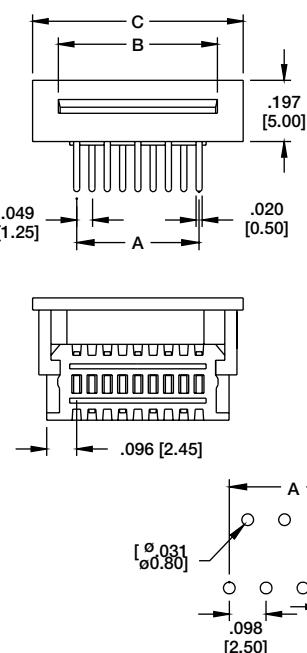
Recommended PCB Layout

### PCA-1

1.25mm (.049")

TOP ENTRY THRU HOLE

A = .049 [1.25] X No. of Spaces  
 B = A + .106 [2.70]  
 C = A + .303 [7.70]



PCA-1-10-HU-3-50

Recommended PCB Layout