

### INTRODUCTION:

Adam Tech 0.8mm and 1.00mm Pin Header and Female Header series is a fine pitch, low profile, dual row, PCB mounted connector set intended for limited space applications or where total weight is a factor. Our specially tooled insulators and contacts maintain consistent high quality through our automated production processes. Each series is available in thru-hole PCB or SMT mounting and plated tin, gold or selective gold as specified.

### FEATURES:

0.8mm and 1.0mm versions  
Pin Header and Female Header set  
Lightweight and Compact  
Hi Temp Insulators

### MATING OPTIONS:

Mates with all industry standard 0.8mm & 1.0mm pitch headers and female headers

### SPECIFICATIONS:

#### Material:

Standard Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Plating:

U = Gold over nickel underplate  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall.

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 cycles min.

#### Temperature Ratings:

Operating temperature: -40°C to +105°C  
Max process temp: 230°C for 30 ~ 60 seconds  
(260°C for 10 seconds)  
Soldering process temperature: 260°C

#### PACKAGING:

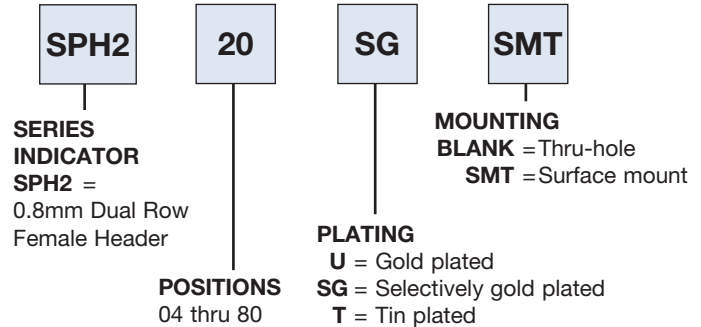
Anti-ESD plastic bags or tubes

#### APPROVALS AND CERTIFICATIONS:

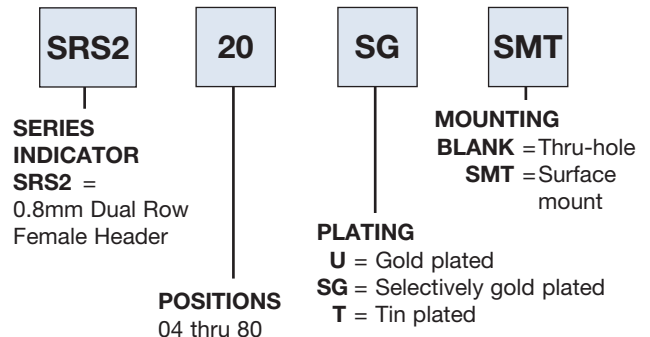
UL Recognized File no. E224053



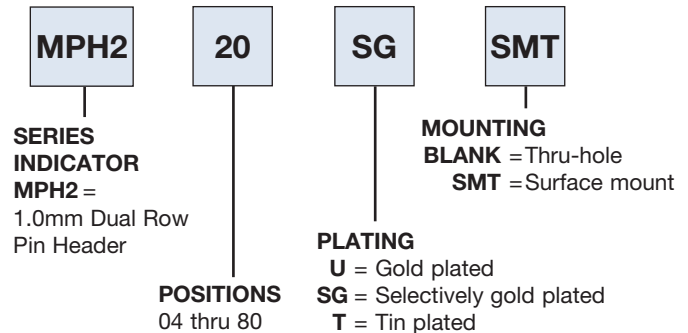
### 0.8mm MALE ORDERING INFORMATION



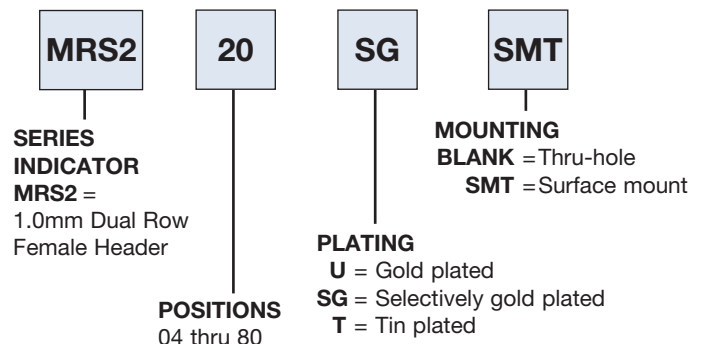
### 0.8mm FEMALE ORDERING INFORMATION



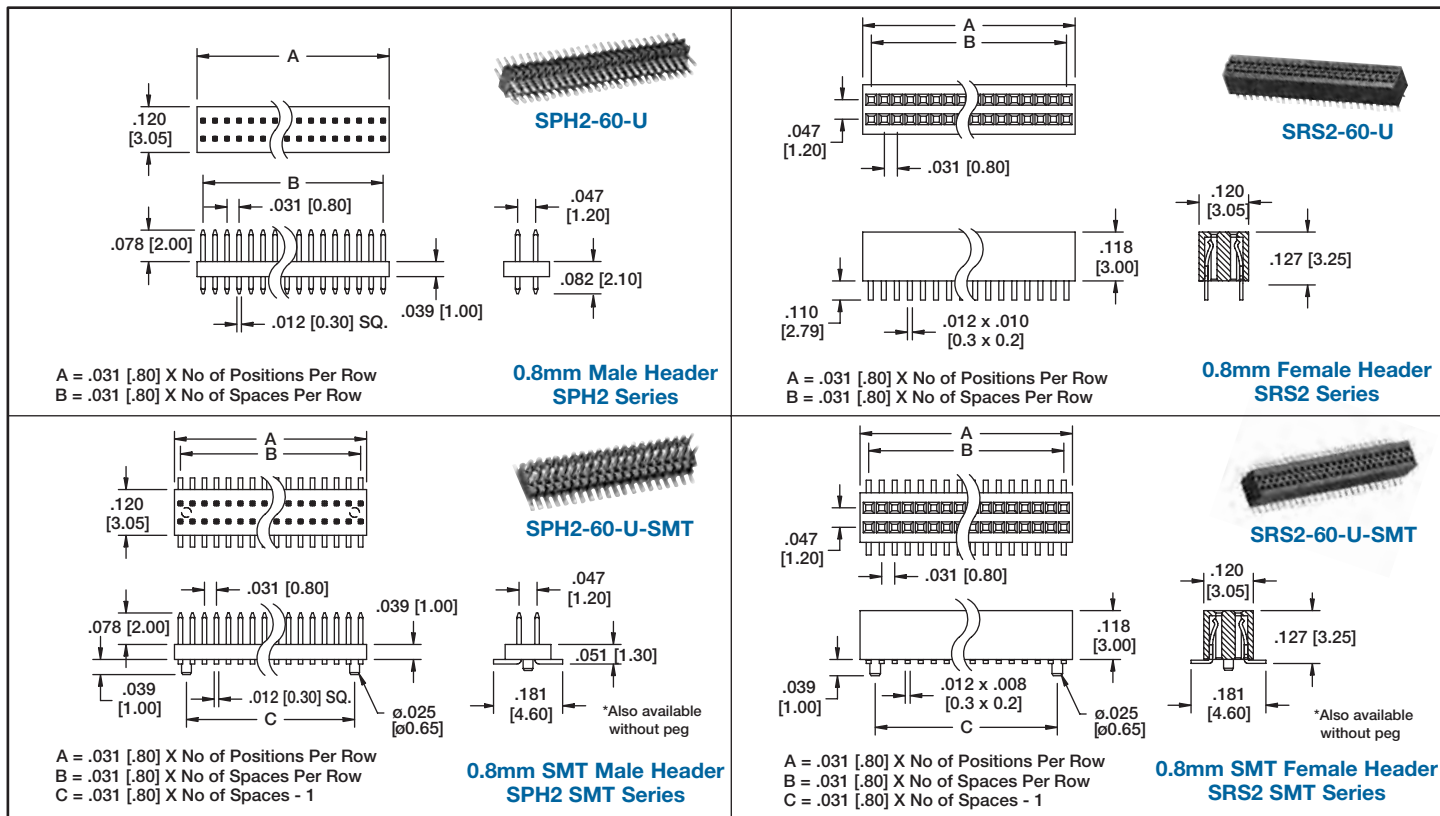
### 1.0mm MALE ORDERING INFORMATION



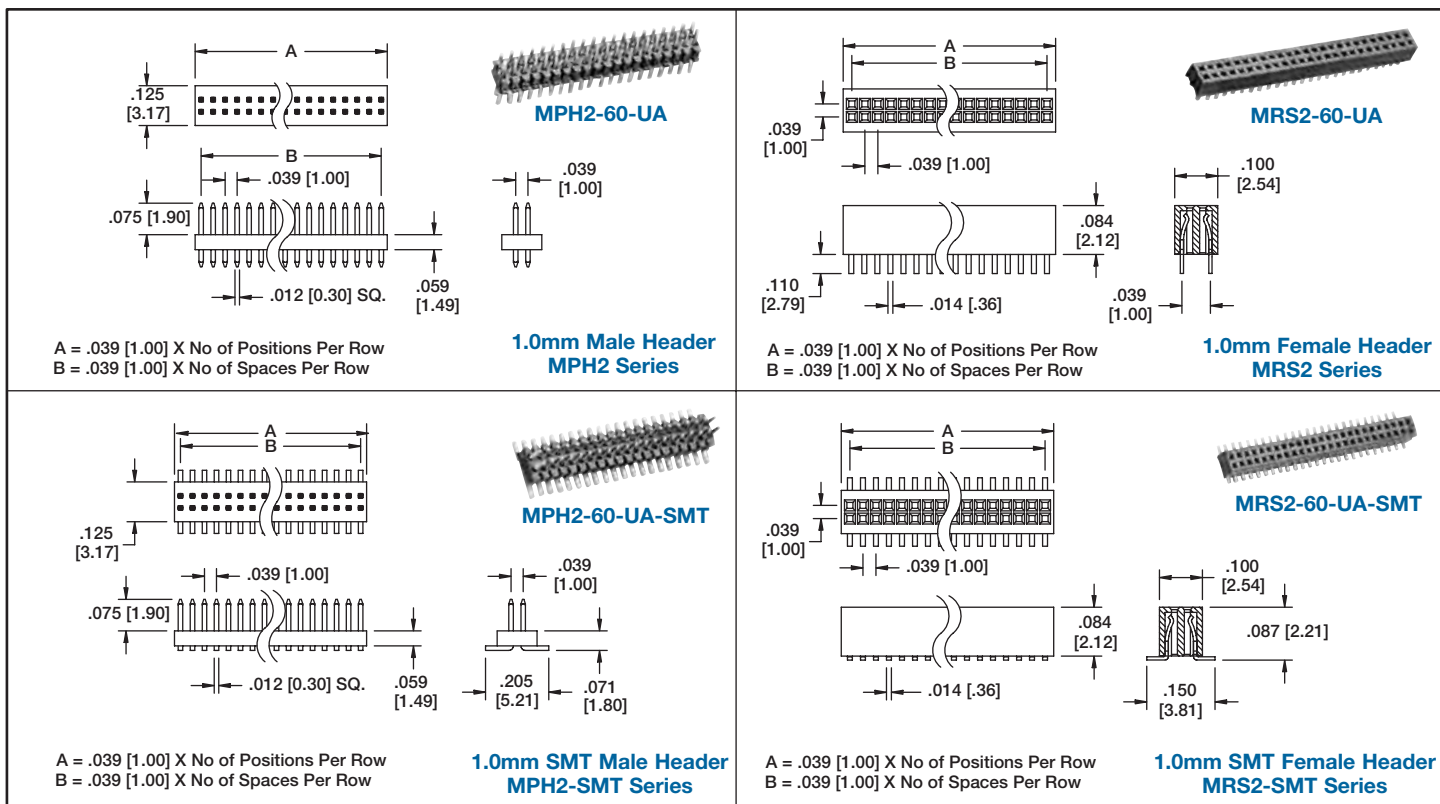
### 1.0mm FEMALE ORDERING INFORMATION



### 0.8mm SUB-MICRO HEADERS



### 1.0mm MICRO HEADERS



#### INTRODUCTION:

Adam Tech .050" HPH Series Pin Headers are fine pitched, low profile, PCB mounted pin headers intended for limited space applications or where overall size is a factor. Our specially tooled insulators and contacts offer consistent high quality through automated production processes. This series offers an extensive range of single, dual and stacked versions. Each is available in thru-hole PCB or SMT mounting with choice of tin, gold or selective gold plating.

#### FEATURES:

- Single and Dual Row
- Stacked, Thru-Hole and SMT mounting
- Pin Header and Female Header sets
- Lightweight and Compact
- Hi Temp Insulator available
- Choice of plating

#### MATING OPTIONS:

Mates with all industry standard .050" [1.27mm] pitch female headers designed for use with 0.4mm Sq. pins and Low profile receptacle

#### SPECIFICATIONS:

##### Material:

Standard Hi-Temp insulator: Nylon 6T or Nylon 46, rated UL94V-0  
Insulator Color: Black  
Contacts: Brass or Phosphor Bronze

##### Plating:

U = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

##### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. Initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

##### Mechanical:

Mating durability: 500 Cycles min.

##### Temperature Rating:

Operating temperature: -40°C to +105°C  
Soldering process temperature: 260°C

##### PACKAGING:

Anti-ESD plastic bags

##### APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

**HI-TEMP**  
INSULATOR  
AVAILABLE



#### OPTIONS:

Add designator(s) to end of part number

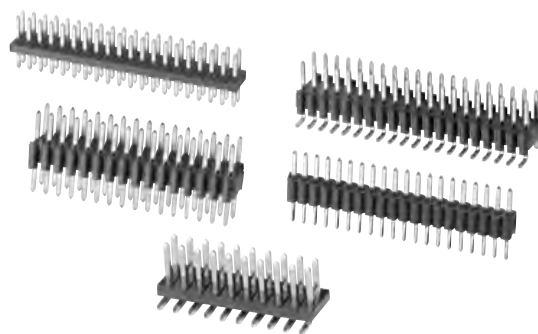
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C  
(Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

**SMT** = Dual Row Surface Mount leads with Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

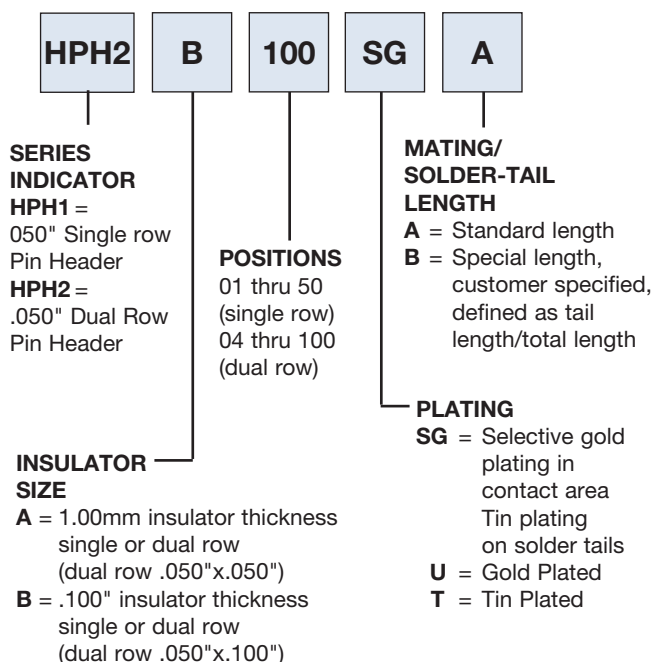
**SMT-A** = Single Row Surface Mount Leads Type A

**SMT-B** = Single Row Surface Mount Leads Type B

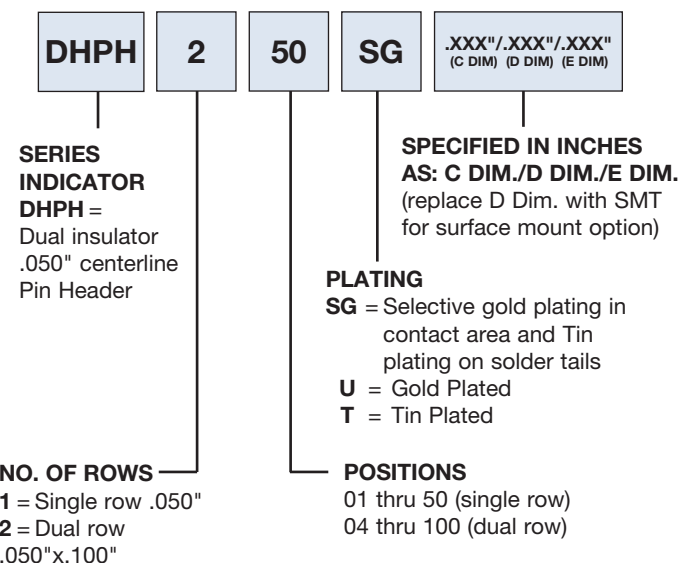
**P** = Optional locating peg



#### ORDERING INFORMATION

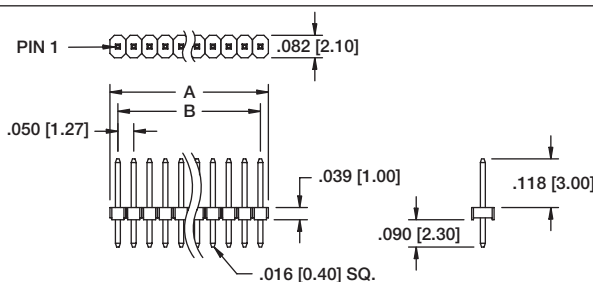
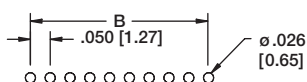


#### ORDERING INFORMATION



A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



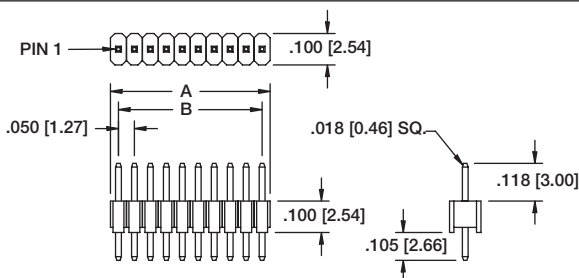
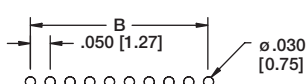
#### HPH1-A SINGLE ROW STRAIGHT WITH 1.00mm INSULATOR



HPH1-A-20-UA

A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



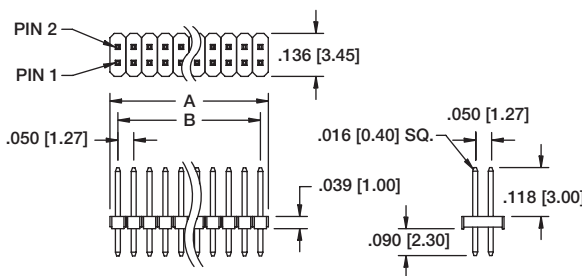
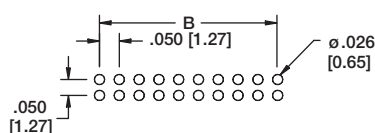
#### HPH1-B SINGLE ROW STRAIGHT WITH .100" INSULATOR



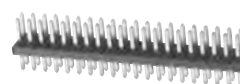
HPH1-B-20-UA

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



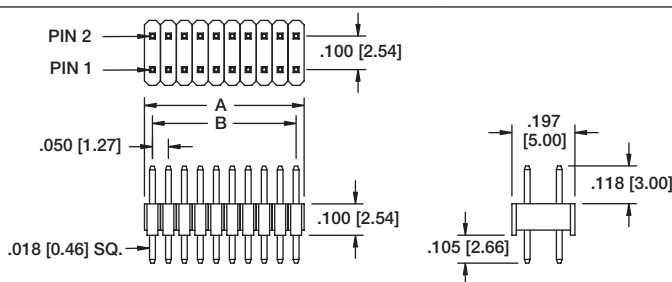
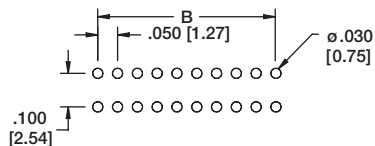
#### HPH2-A DUAL ROW STRAIGHT WITH 1.00mm INSULATOR



HPH2-A-40-UA

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



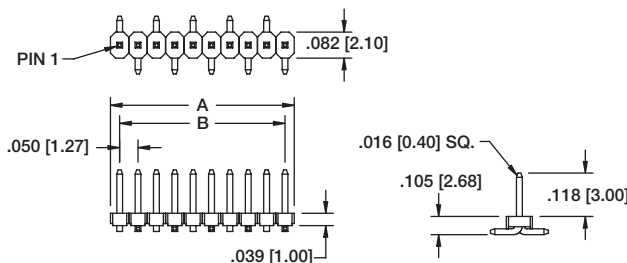
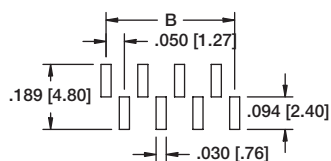
#### HPH2-B DUAL ROW STRAIGHT WITH .100" INSULATOR



HPH2-B-40-UA

A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



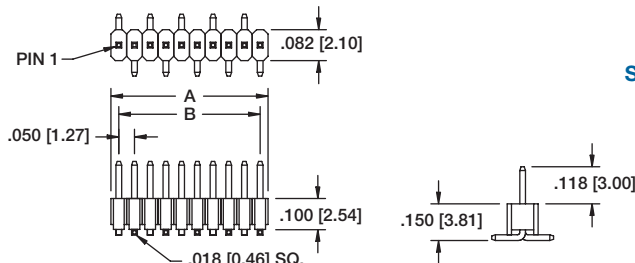
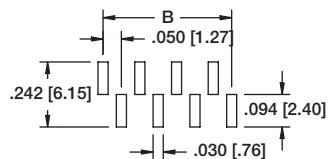
#### HPH1-A (SMT) SINGLE ROW STRAIGHT SMT WITH 1.00mm INSULATOR



HPH1-A-20-UA-SMT

A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



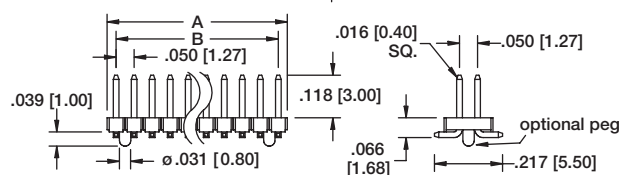
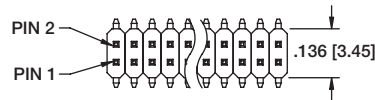
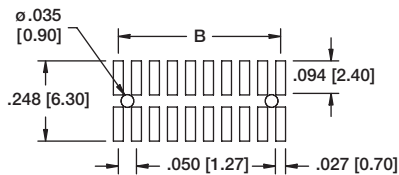
#### HPH1-B (SMT) SINGLE ROW STRAIGHT SMT WITH .100" INSULATOR



HPH1-B-20-UA-SMT

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



**HPH2-A (SMT)**

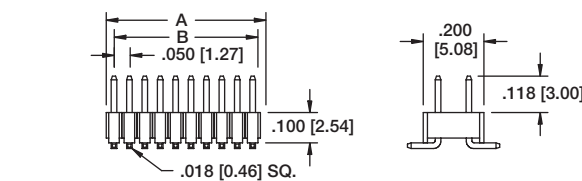
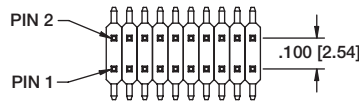
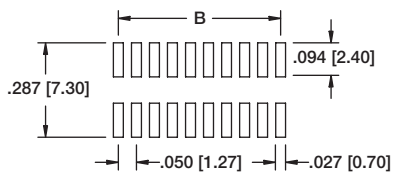


**HPH2-A-40-UA-SMT**

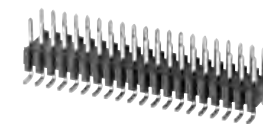
Dwg. shown with optional peg

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



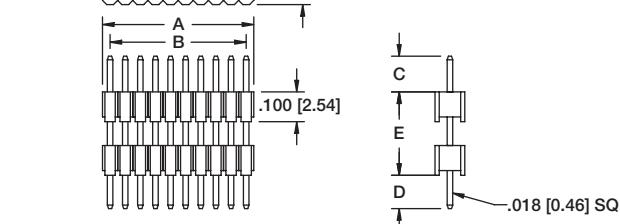
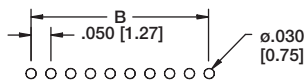
**HPH2-B (SMT)**



**HPH2-B-40-UA-SMT**

A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



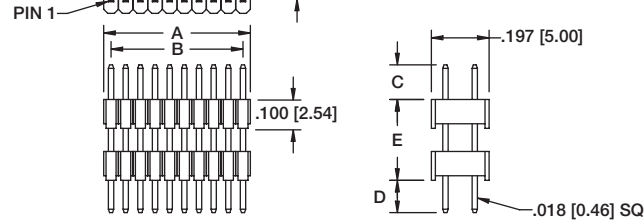
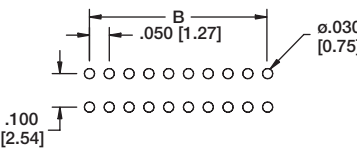
**DHPH-1**



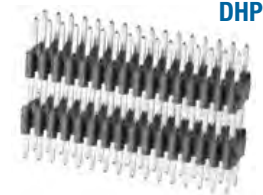
**DHPH-1-20-U-.079/.079/.354**

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



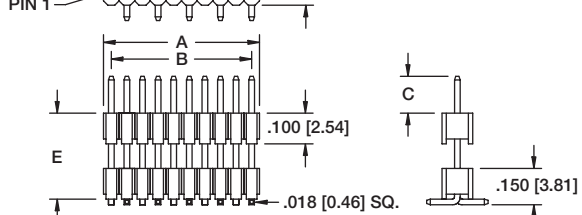
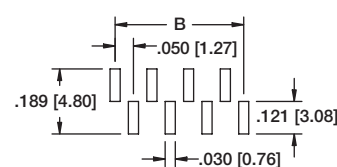
**DHPH-2**



**DHPH-2-32-U-.079/.079/.354**

A = .050 [1.27] X No. of Positions  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



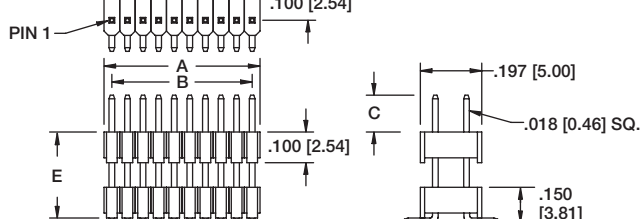
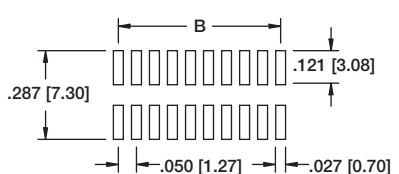
**DHPH-1 (SMT)**



**DHPH-1-10-U-.079/SMT-A/.354**

A = .050 [1.27] X No. of Positions per row  
B = .050 [1.27] X No. of Spaces

#### Recommended PCB Layout



**DHPH-2 (SMT)**



**DHPH-2-40-U-.079/SMT/.354**



### MALE HEADER



### ORDERING INFORMATION

**HSH**

**50**

**G**

#### SERIES INDICATOR

**HSH** =  
.050" Shrouded  
Male header

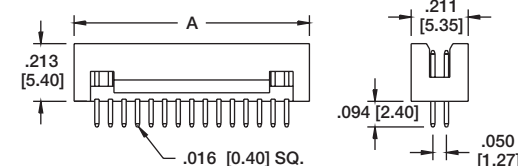
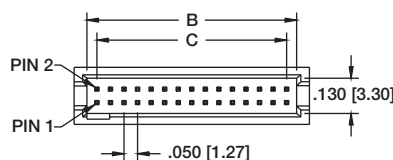
#### PLATING

**G** = Gold plated  
**T** = Tin plated  
**SG** = Gold plating  
in contact  
area, tin  
plated  
solder tails

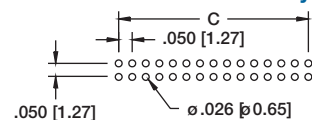
**TOTAL  
POSITIONS**  
10 thru 100

#### OPTIONS:

**SMT** = Surface mount leads with  
Hi-Temp insulator  
**P** = Peg option (thru hole only)



#### Recommended PCB Layout

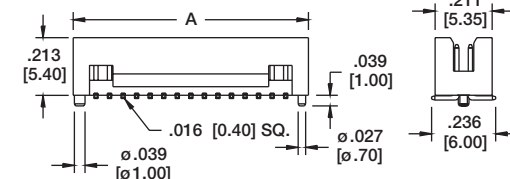
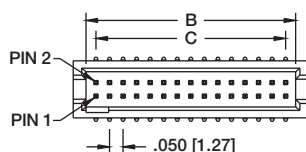


Standard: With key & without peg

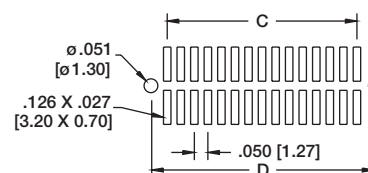
A = .050 X No. of Spaces + .168 [4.27]  
B = .050 X No. of Spaces + .074 [1.87]  
C = .050 X No. of Spaces

#### HSH SERIES

#### SHROUDED MALE HEADER



#### Recommended PCB Layout



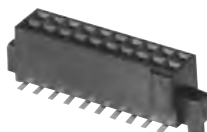
Standard: With key & with peg

A = .050 X No. of Spaces + .168 [4.27]  
B = .050 X No. of Spaces + .074 [1.87]  
C = .050 X No. of Spaces  
D = .050 X No. of Spaces + .120 [3.05]

#### HSH-SMT SERIES

#### SHROUDED MALE HEADER

### FEMALE HEADER



### ORDERING INFORMATION

**HFH**

**50**

**G**

#### SERIES INDICATOR

**HFH** =  
.050" Female header

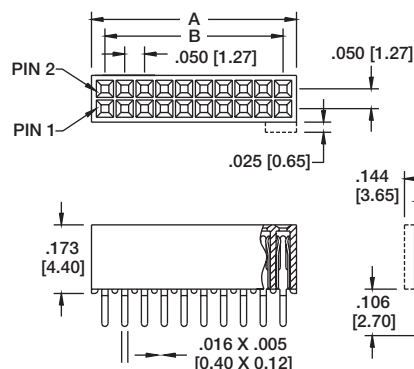
#### PLATING

**G** = Gold plated  
**T** = Tin plated  
**SG** = Gold plating  
in contact  
area, tin  
plated  
solder tails

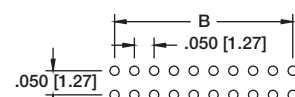
**TOTAL  
POSITIONS**  
10 thru 100

#### OPTIONS:

**SMT** = Surface mount leads  
with Hi-Temp insulator  
**NP** = No peg  
**NK** = No Key  
**P** = Peg option (thru hole only)



#### Recommended PCB Layout

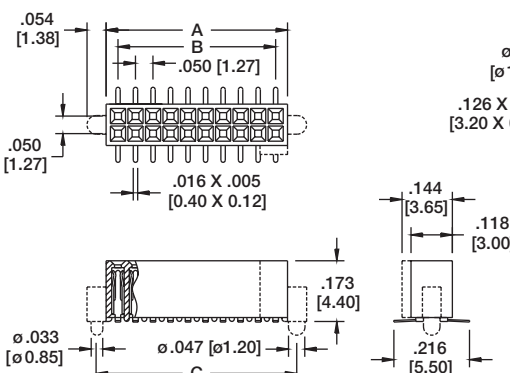


Standard: With key & without peg

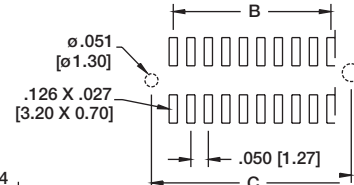
A = .050 X No. of Spaces + .068 [1.73]  
B = .050 X No. of Spaces  
C = .050 X No. of Spaces + .120 [3.05]

#### HFH SERIES

#### SHROUDED FEMALE HEADER



#### Recommended PCB Layout



Standard: With key & with peg

A = .050 X No. of Spaces + .068 [1.73]  
B = .050 X No. of Spaces  
C = .050 X No. of Spaces + .120 [3.05]

#### HFH-SMT SERIES

#### SHROUDED FEMALE HEADER

#### HBHR SERIES

Adam Tech HBHR Series .050" Box Headers are fine pitched, dual row shrouded headers for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi-Temp insulator. Additional options include latches and custom pin lengths.

#### FEATURES:

Shrouded, insulated connection  
Superior low profile design  
Slot for IDC socket Polarization bump  
Straight PCB, Right Angle PCB and SMT versions  
Gold, Tin or Selective Gold plating  
Options include Elevated types and integral latches  
Hi-Temp insulator available

#### MATING RECEPTACLES:

Mates with all industry standard .050" [1.27mm] pitch dual row IDC sockets

#### SPECIFICATIONS:

##### Material:

Standard insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Brass

##### Plating:

G = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

##### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 500V AC for 1 minute

##### Temperature Rating:

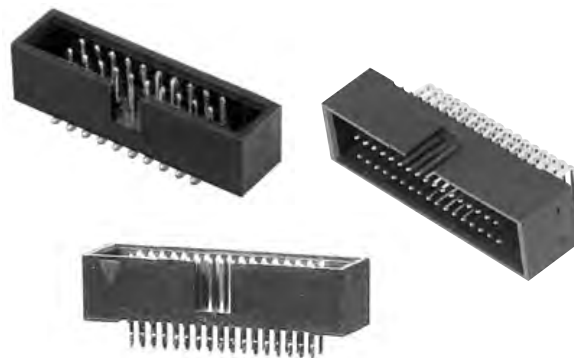
Operating temperature: -40°C to +105°C  
Soldering process temperature: 260°C

##### PACKAGING:

Anti-ESD plastic trays

##### APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053



#### ORDERING INFORMATION

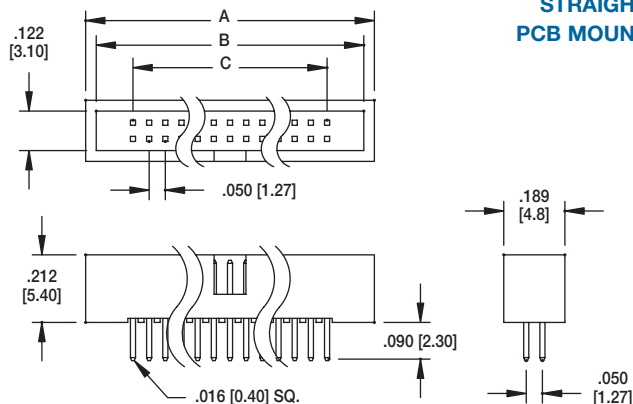
HBHR-B	20	V	SG
<b>SERIES INDICATOR</b> HBHR-B = Box header .050" x .050" HBHR-A = Box header .050" x .100"	<b>POSITIONS</b> 10, 20, 30, 40, 50, 60, 70, 80, 90, 100	<b>MOUNTING ORIENTATION</b> V = Vertical mount H = Right angle mount	<b>PLATING</b> G = Gold plated SG = Selective gold plating in contact area, tin plated solder tails T = Tin plated

This series is available in an elevated version similar to our BHRE Series as shown on pgs. 286-287

#### OPTIONS:

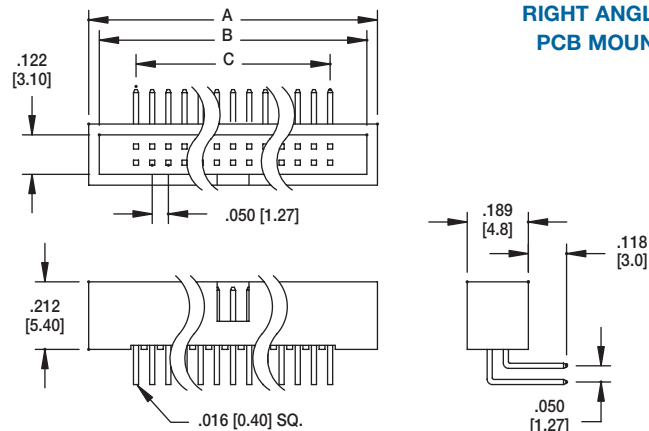
Add designator(s) to end of part number  
**30** = 30 μin gold plating in contact area  
**SMT** = Surface mount leads with Hi-Temp insulator for Hi-Temp soldering processes up to 260°C  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only.)  
All SMT products are manufactured with Hi-Temp insulators

**HBHR-B**  
**.050" X .050"**  
**STRAIGHT**  
**PCB MOUNT**



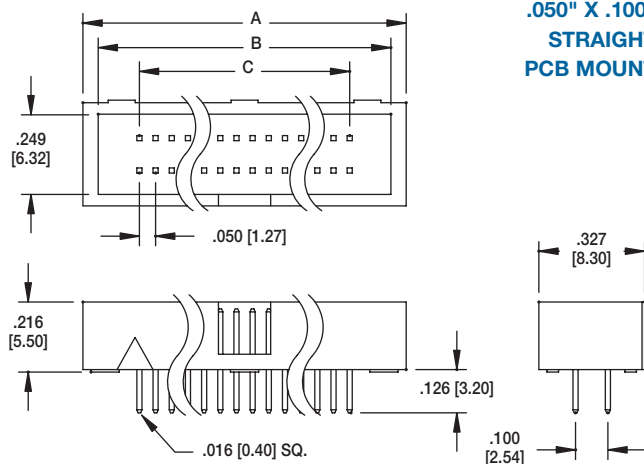
A = .050 [1.27] x No. of Spaces + .292 [7.43]  
B = .050 [1.27] x No. of Spaces + .227 [5.77]  
C = .050 [1.27] x No. of Spaces

**HBHR-B**  
**.050" X .050"**  
**RIGHT ANGLE**  
**PCB MOUNT**



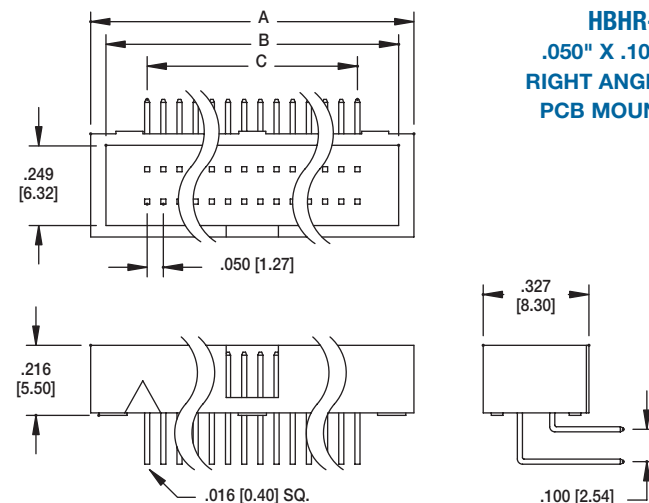
A = .050 [1.27] x No. of Spaces + .292 [7.43]  
B = .050 [1.27] x No. of Spaces + .227 [5.77]  
C = .050 [1.27] x No. of Spaces

**HBHR-A**  
**.050" X .100"**  
**STRAIGHT**  
**PCB MOUNT**



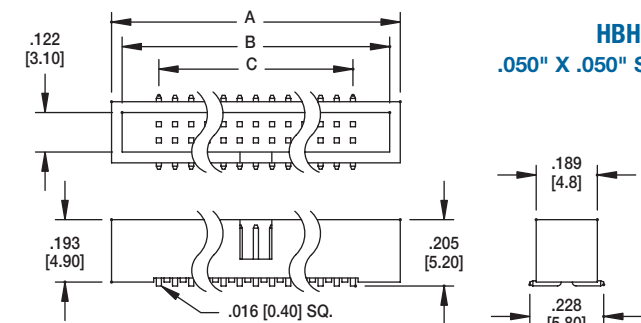
A = .050 [1.27] x No. of Spaces + .349 [8.87]  
B = .050 [1.27] x No. of Spaces + .255 [6.47]  
C = .050 [1.27] x No. of Spaces

**HBHR-A**  
**.050" X .100"**  
**RIGHT ANGLE**  
**PCB MOUNT**

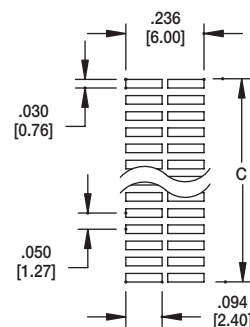
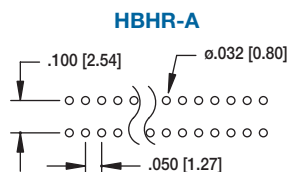
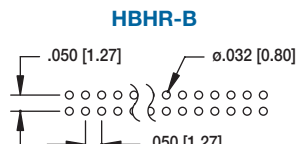


A = .050 [1.27] x No. of Spaces + .349 [8.87]  
B = .050 [1.27] x No. of Spaces + .255 [6.47]  
C = .050 [1.27] x No. of Spaces

**HBHR-B**  
**.050" X .050" SMT**



A = .050 [1.27] x No. of Spaces + .292 [7.43]  
B = .050 [1.27] x No. of Spaces + .227 [5.77]  
C = .050 [1.27] x No. of Spaces



**SMT**

**Recommended PCB Layouts**



### INTRODUCTION:

Adam Tech HMHR Series .050" Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

### FEATURES:

Integral Latches provide Shock and Vibration Proof connection  
Slot for IDC socket Polarization bump  
Straight PCB, Right Angle PCB and SMT versions  
Gold, Tin or Selective Gold plating  
Elevated option available  
Hi-Temp insulator available

### MATING SOCKETS:

.050" X .050" & .050" X .100" Dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Insulator Color: Black (Gray optional)  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate overall  
SG = Gold over nickel on contact area,  
Tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 500V AC for 1 minute

#### Mechanical:

Mating durability: 500 Cycles min.

#### Temperature Rating:

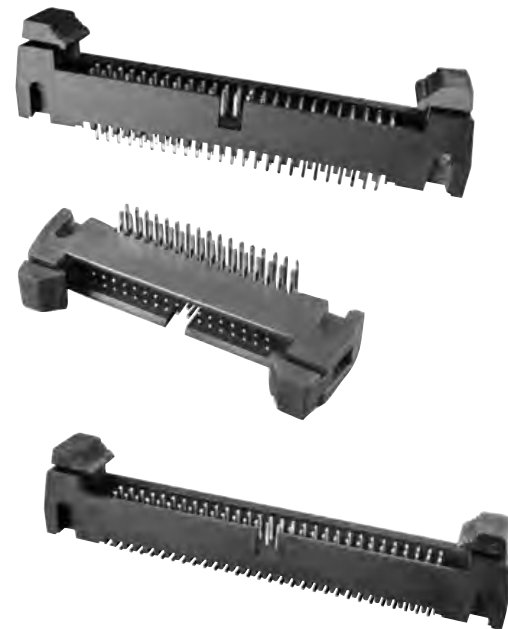
Operating temperature: -55°C to +105°C

#### PACKAGING:

Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

HMHR	26	V	U	A	L
<b>SERIES INDICATOR</b> <b>HMHR</b> = .050" x .100" 2 row PCB <b>HMHR-A</b> = .050" x .050" 2 row PCB <b>HMHR-B</b> = .050" x .100" 4 row PCB	<b>POSITIONS</b> 10, 16, 20, 26, 30, 32, 34, 40, 44, 50, 52, 60, 64, 68, 70, 80, 100	<b>MOUNTING ANGLE</b> <b>V</b> = Straight Mount <b>H</b> = Right Angle Mount	<b>PIN LENGTHS</b> <b>A</b> = Standard length solder tail <b>B</b> = Special length, customer specified	<b>LATCHING FEATURES</b> <b>S</b> = Short latches (for sockets w/o strain relief) <b>L</b> = Long latches (for sockets w/strain relief) <b>N</b> = No latches	<b>CONTACT PLATING</b> <b>U</b> = Gold plated <b>SG</b> = Gold plating in contact area, Tin plated solder tails <b>T</b> = Tin plated

### OPTIONS:

Add designator(s) to end of part number

**SMT** = Surface mount leads Dual row with Hi-Temp insulator

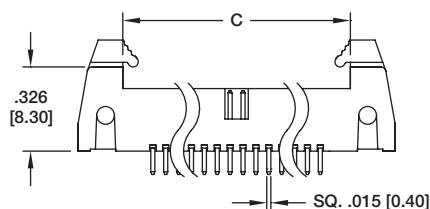
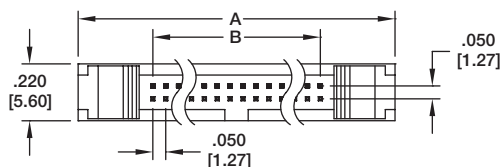
**HT** = High-temp insulator for high-temp soldering processes



### HMHR-A

.050" X .050"

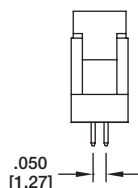
STRAIGHT PCB MOUNT



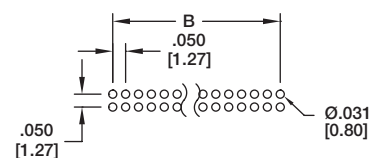
$$A = .050 [1.27] \times \text{No. of Spaces} + .233 [5.92]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

$$C = .050 [1.27] \times \text{No. of Spaces} + .621 [15.77]$$



HMHR-A-50-VUAS

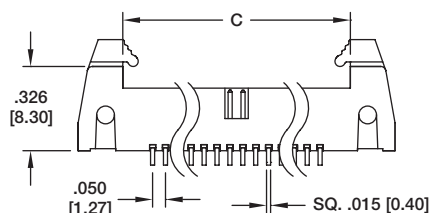
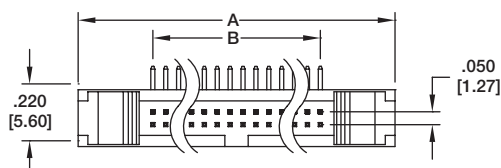


Recommended PCB Layout

### HMHR-A

.050" X .050"

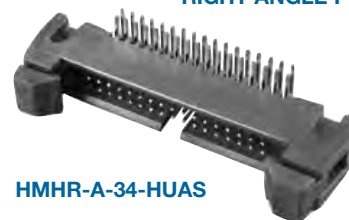
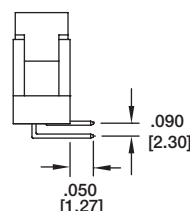
RIGHT ANGLE PCB MOUNT



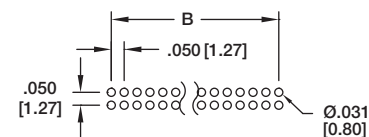
$$A = .050 [1.27] \times \text{No. of Spaces} + .233 [5.92]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

$$C = .050 [1.27] \times \text{No. of Spaces} + .621 [15.77]$$



HMHR-A-34-HUAS

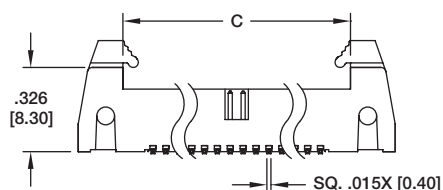
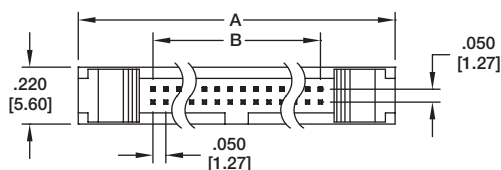


Recommended PCB Layout

### HMHR-A

.050" X .050"

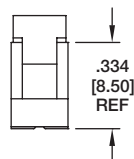
VERTICAL SMT



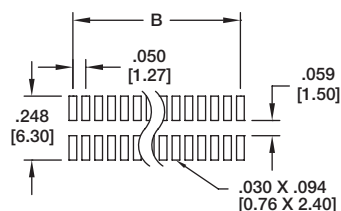
$$A = .050 [1.27] \times \text{No. of Spaces} + .233 [5.92]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

$$C = .050 [1.27] \times \text{No. of Spaces} + .621 [15.77]$$



HMHR-A-60-VUAS-SMT

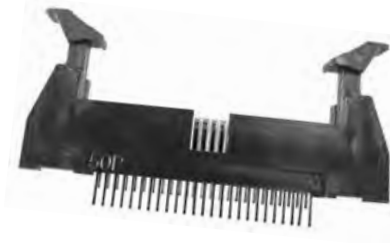
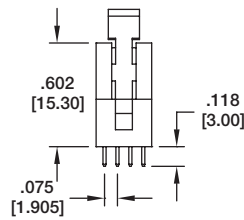
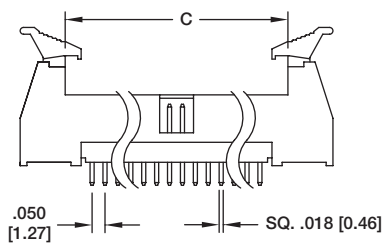
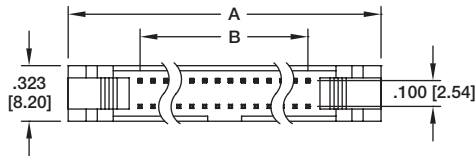


Recommended PCB Layout

#### HMHR-B

.050" X .100"

STRAIGHT PCB MOUNT



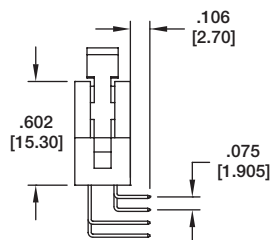
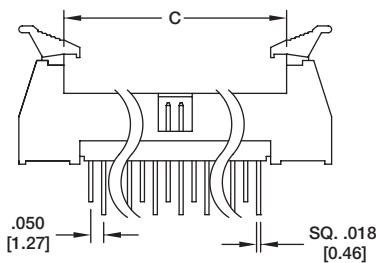
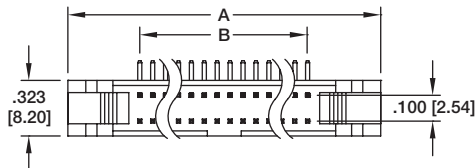
HMHR-B-50-VUAL

A = .050 [1.27] X No. of Spaces + .306 [7.78]  
B = .050 [1.27] X No. of Spaces  
C = .050 [1.27] X No. of Spaces + .829 [21.07]

#### HMHR-B

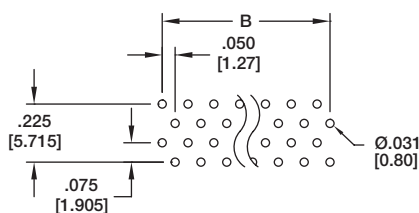
.050" X .100" 4 ROW

RIGHT ANGLE PCB MOUNT



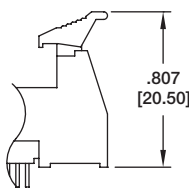
HMHR-B-60-HUAL

A = .050 [1.27] X No. of Spaces + .306 [7.78]  
B = .050 [1.27] X No. of Spaces  
C = .050 [1.27] X No. of Spaces + .829 [21.07]

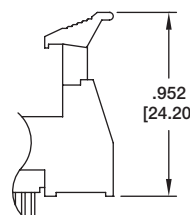


Recommended PCB Layout

#### Latch Options

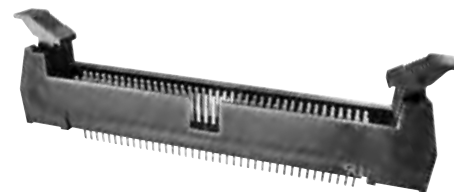
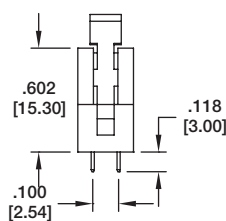
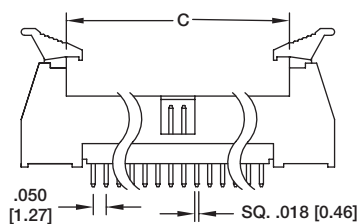
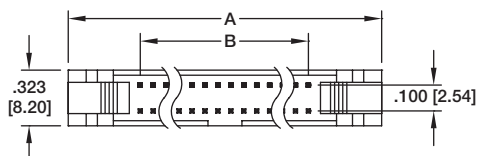


Header with  
Short Ejector/Latch  
for Sockets without  
Strain Reliefs



Header with  
Long Ejector/Latch  
for Sockets with  
Strain Reliefs

#### HMHR .050" X .100" STRAIGHT PCB MOUNT



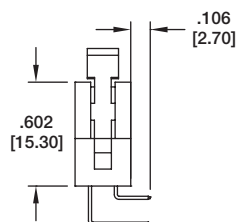
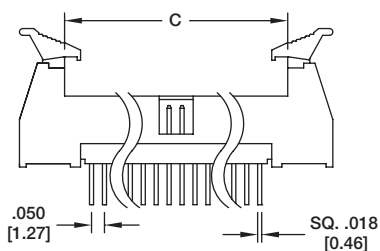
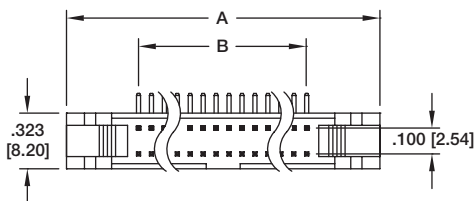
HMHR-80-VUAS

$$A = .050 [1.27] \times \text{No. of Spaces} + .306 [7.78]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

$$C = .050 [1.27] \times \text{No. of Spaces} + .829 [21.07]$$

#### HMHR .050" X .100" RIGHT ANGLE PCB MOUNT

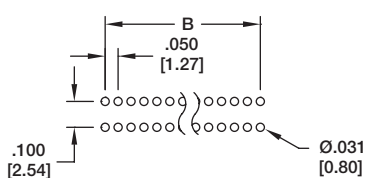


HMHR-50-HUAL

$$A = .050 [1.27] \times \text{No. of Spaces} + .306 [7.78]$$

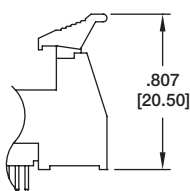
$$B = .050 [1.27] \times \text{No. of Spaces}$$

$$C = .050 [1.27] \times \text{No. of Spaces} + .829 [21.07]$$

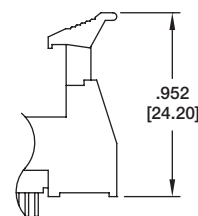


Recommended PCB Layout

#### Latch Options



Header with  
Short Ejector/Latch  
for Sockets without  
Strain Reliefs



Header with  
Long Ejector/Latch  
for Sockets with  
Strain Reliefs

### INTRODUCTION:

Adam Tech HRS Series .050" Receptacle Strips are offered in a multitude of sizes and profiles designed to satisfy most .050" socket requirements. Available in Single and Dual rows they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which produces a high normal force connection and is available with gold, tin or selective gold plating. All are available with standard or Hi-Temp thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape & reel packaging.

### FEATURES:

- Broad range of sizes and profiles
- Contact systems with high normal force
- Choice of contact plating
- SMT pick & place option
- Optional Tape & reel packaging

### MATING CONNECTORS:

Adam Tech HPH headers and all industry standard .050" pitch pin headers with .016" [0.4mm] square pins

### SPECIFICATIONS:

#### Material:

Insulator: Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Contact Plating:

G = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 0.375 lbs per contact max.  
Withdrawal force: 0.125 lbs per contact min.

#### Temperature rating:

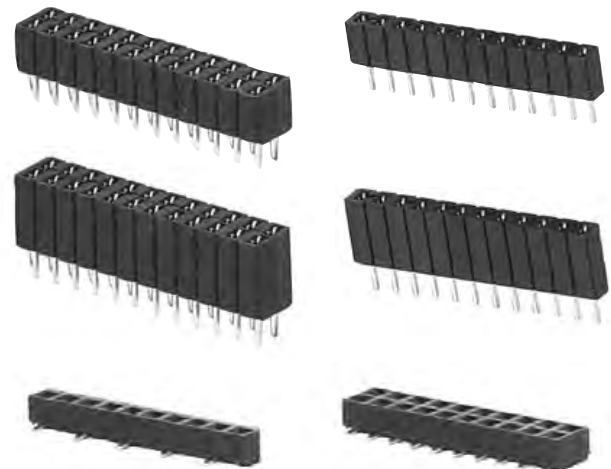
Operating temperature: -40°C to +105°C

#### PACKAGING:

Anti-ESD trays or tubes  
(Tape and Reel optional for SMT type)

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION



**SERIES INDICATOR**  
HRS = .050" Receptacle Strip

#### NO. OF ROWS / PROFILE

**1A** = Single Row, Standard Profile  
**1B** = Single Row, Low Profile  
**1C** = Single Row, .085" Height  
**2A** = Dual Row, Standard Profile .050"x.100"  
**2B** = Dual Row, Low Profile .050"x.100"  
**2C** = Dual Row, Low Profile .050"x.050" (SMT) or PCB  
**2F** = Dual Row, Low Profile .050"x.100" (SMT)  
**1F** = Single Row (SMT) .228" Height  
**1G** = Single Row, .079" Height, Top Entry, (SMT)  
**2E** = Dual Row, .134" Height .050"x.050" (SMT or PCB)  
**2F** = Dual Row, .230" Height .050"x.100"  
**2G** = Dual Row, .085" Height .050"x.050" (SMT)

#### SOLDER TAIL LENGTH

**A** = Standard solder tail for .062"-.125" PCB thickness  
**SMT** = Surface mount leads (2C, 2E, 2F, 2G only)  
**SMT-A** = Surface mount leads Type A (1F, 1G only)  
**SMT-B** = Surface mount leads Type B (1F, 1G only)

#### CONTACT PLATING

**G** = Gold plated  
**T** = Tin plated  
**SG** = Gold plated contact area, tin plated solder tails

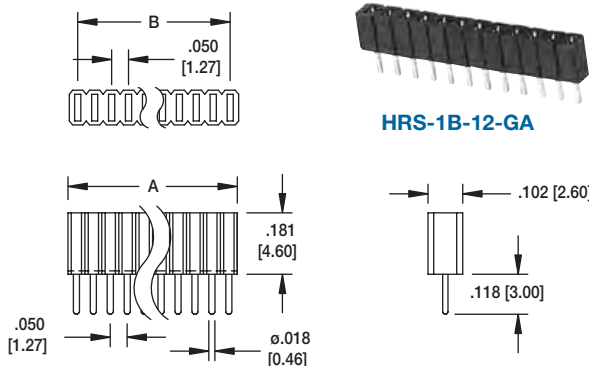
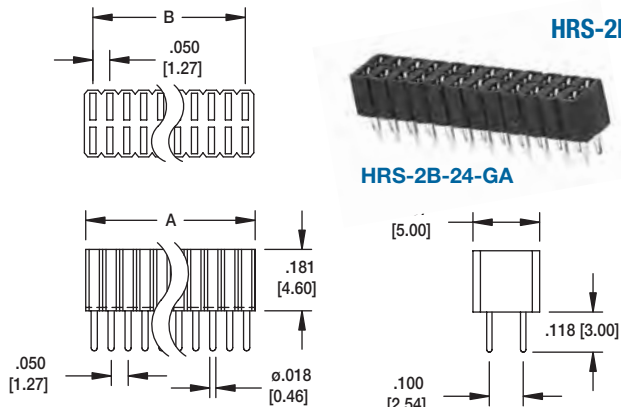
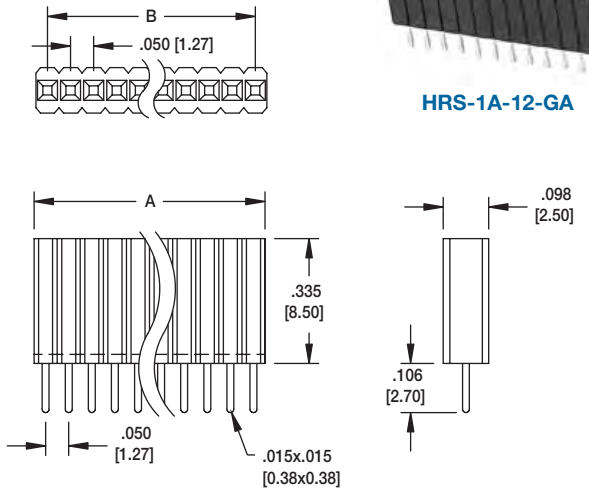
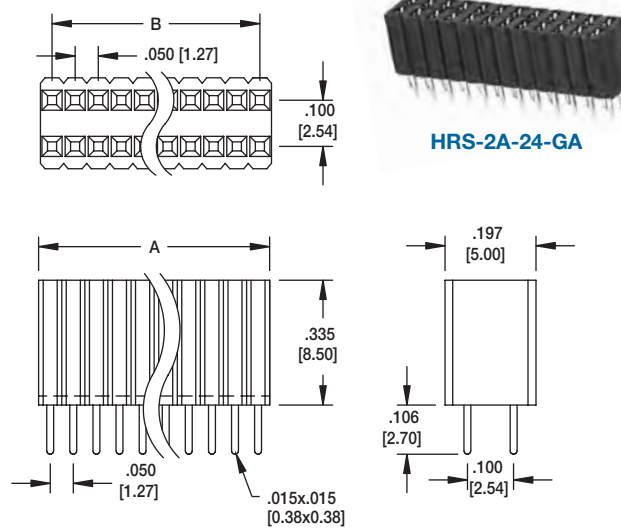
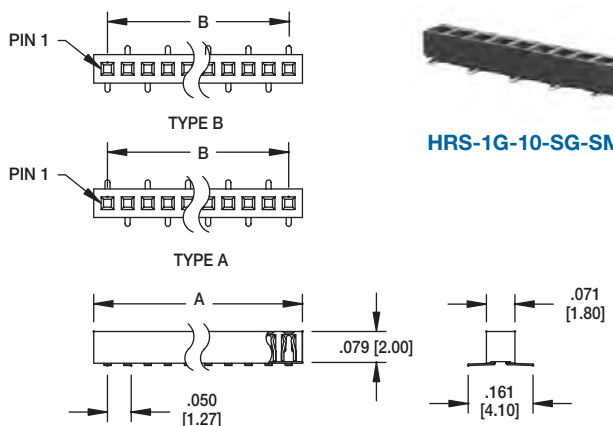
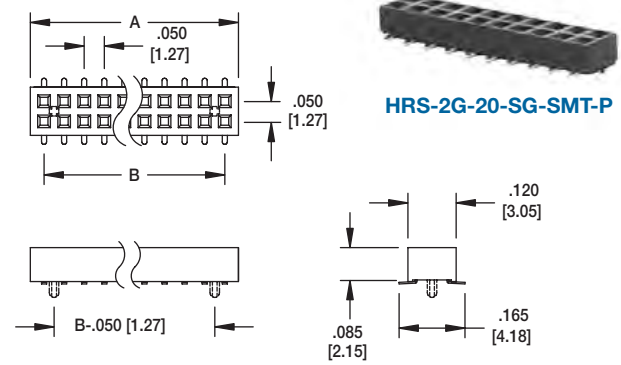
#### NO. OF POSITIONS

Single Row: 02 thru 40  
Dual Row: 04 thru 80

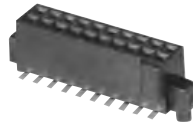
#### OPTIONS:

Add designator(s) to end of part number  
**30** = 30 μin gold plating in contact area  
**P** = Guide Pegs  
**E** = End Pegs

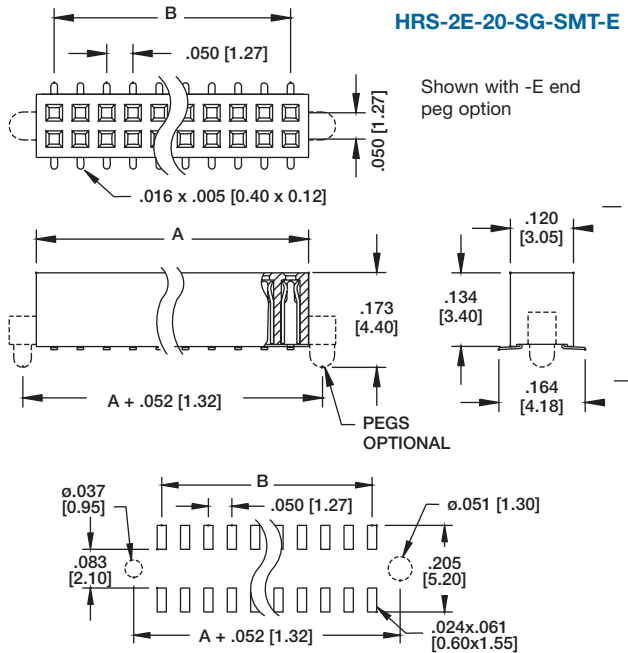


<p><b>HRS-1B</b></p>  <p><b>HRS-1B-12-GA</b></p>	<p><b>HRS-2B</b></p>  <p><b>HRS-2B-24-GA</b></p>
<p><b>HRS-1A</b></p>  <p><b>HRS-1A-12-GA</b></p>	<p><b>HRS-2A</b></p>  <p><b>HRS-2A-24-GA</b></p>
<p><b>HRS-1G-SMT TOP ENTRY</b></p>  <p><b>HRS-1G-10-SG-SMT-B</b></p>	<p><b>HRS-2G-SMT TOP ENTRY</b></p>  <p><b>HRS-2G-20-SG-SMT-P</b></p>

### HRS-2E SMT W/ OPTIONAL PEG



**HRS-2E-20-SG-SMT-E**



#### Recommended PCB Layout

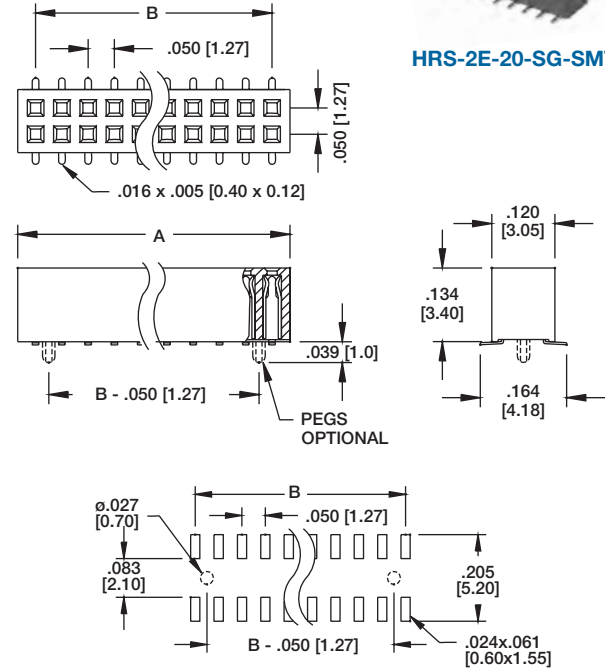
A = .050 [1.27] X No. of Positions per row + .018 [0.46]  
B = .050 [1.27] X No. of Spaces

### HRS-2E SMT

Ordering Information pg. 294



**HRS-2E-20-SG-SMT**



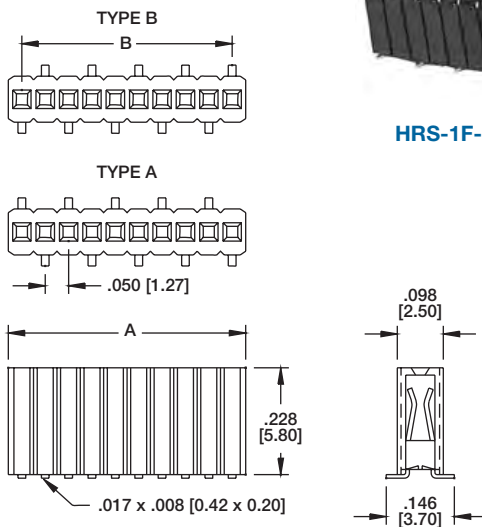
#### Recommended PCB Layout

A = .050 [1.27] X No. of Positions per row + .018 [0.46]  
B = .050 [1.27] X No. of Spaces

### HRS-1F-SMT



**HRS-1F-12-SG-SMT-B**

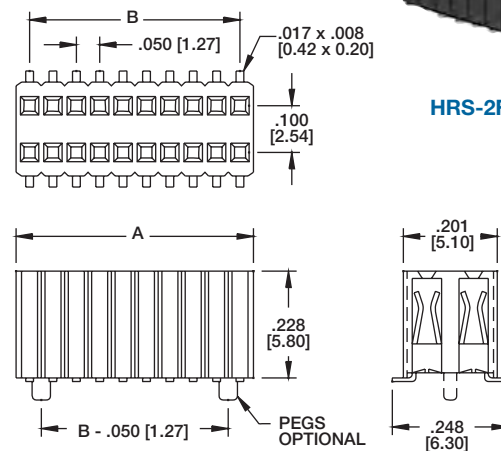


A = .050 [1.27] X No. of Positions + .008 [0.20]  
B = .050 [1.27] X No. of Spaces

### HRS-2F-SMT



**HRS-2F-24-SG-SMT**

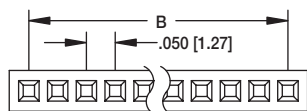


A = .050 [1.27] X No. of Positions per row + .008 [0.20]  
B = .050 [1.27] X No. of Spaces

### HRS-1C SINGLE ROW

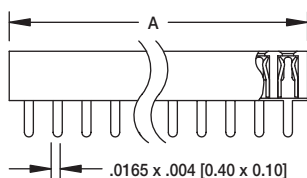


**HRS-1C-13-GA**



$$A = .050 [1.27] \times \text{No. of Pos.} + .018 [0.46]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

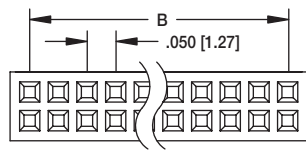


### HRS-2C DUAL ROW

Ordering Information  
pg. 294

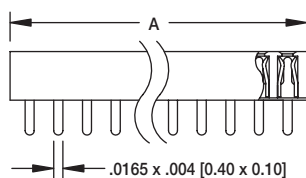


**HRS-2C-26-GA**

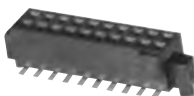


$$A = .050 [1.27] \times \text{No. of Pos.} + .018 [0.46]$$

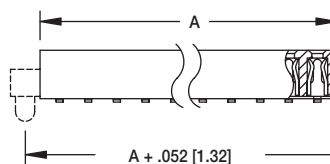
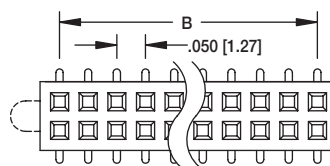
$$B = .050 [1.27] \times \text{No. of Spaces}$$



### HRS-2C-SMT DUAL ROW WITH END PEGS



**HRS-2C-20-SG-SMT-E**



$$A = .050 [1.27] \times \text{No. of Pos.} + .018 [0.46]$$

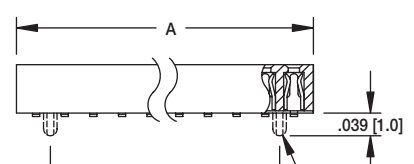
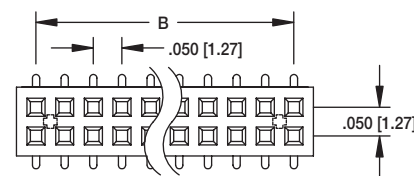
$$B = .050 [1.27] \times \text{No. of Spaces}$$

PEGS  
OPTIONAL

### HRS-2C-SMT DUAL ROW WITH UNDERSIDE PEGS



**HRS-2C-20-SG-SMT**

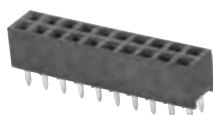


$$A = .050 [1.27] \times \text{No. of Pos.} + .018 [0.46]$$

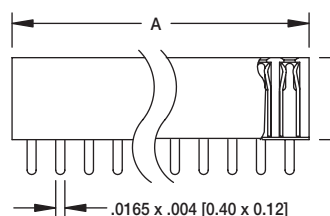
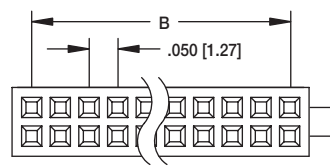
$$B = .050 [1.27] \times \text{No. of Spaces}$$

Pegs  
Optional

### HRS-2E DUAL ROW



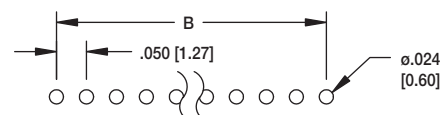
**HRS-2E-20-GA**



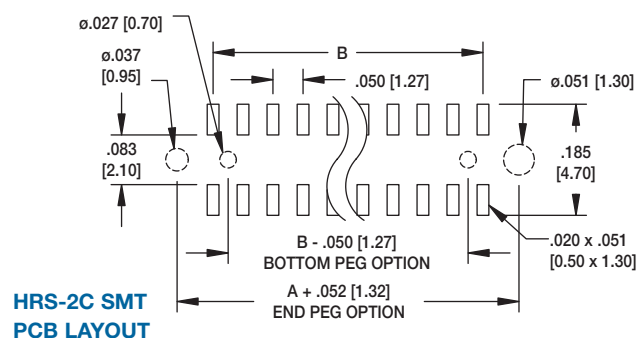
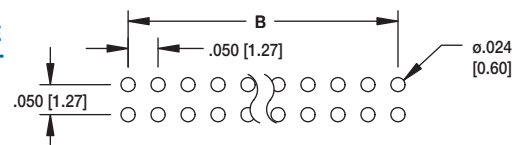
$$A = .050 [1.27] \times \text{No. of Pos.} + .018 [0.46]$$

$$B = .050 [1.27] \times \text{No. of Spaces}$$

### HRS-1C PCB LAYOUT



### HRS-2C & 2E PCB LAYOUT



### HRS-2C SMT PCB LAYOUT

### INTRODUCTION

Adam Tech 2PH & D2PH Series 2.0mm Pin Headers offer a full range of fine pitched headers in a variety of configurations including Single, Dual and Three rows, Straight & Right Angle in Thru-Hole or SMT mounting. Their close tolerance .020" sq. posts are smoothly finished and taper tipped to eliminate insertion damage to the PCB or mating connector. Adam Tech 2.0mm Pin Headers can be easily cut into exact sizes as required. Options include stacked insulator versions and choice of tin, gold or selective gold plating. This series is compatible with all industry standard 2.0mm pitch mating connectors.

### FEATURES:

Single, Dual or Three Row  
Tin, gold or selective gold plating options  
Thru-hole or SMT mounting  
Stacked and Custom length versions available  
Versatile Breakaway design  
Hi Temp Insulator available

### MATING RECEPTACLES:

Mates with all industry standard .050" pitch female headers

### SPECIFICATIONS:

#### Material:

Standard insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 1,000 cycles

#### Temperature Rating:

Operating temperature: -40°C to +105°C  
Soldering process temperature: 260°C

#### PACKAGING:

Anti-ESD plastic bags  
(Tape and Reel available for SMT option)

#### APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053



### ORDERING INFORMATION

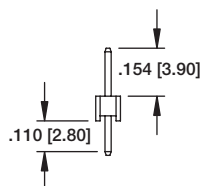
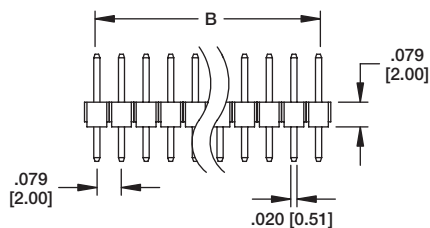
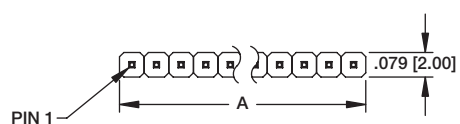
2PH1	40	U	A
<b>SERIES INDICATOR</b> 2PH1 = 2.00mm Single Row Straight Pin Header 2PH2 = 2.00mm Dual Row Straight Pin Header 2PH1R = 2.00mm Single Row Right Angle Pin Header 2PH2R = 2.00mm Dual Row Right Angle Pin Header			<b>PIN LENGTH</b> A = Standard length B = Special length, customer specified defined as: tail dim/total length  <b>PLATING</b> U = Gold plated T = Tin plated SG = Selective gold plating in contact area, tin plating on solder tails
<b>POSITIONS</b> Single row: 1 thru 40 Dual row: 2 thru 80			

### ORDERING INFORMATION DUAL INSULATOR HEADERS

D2PH	1	40	SG	.xxx"/.xxx"/.xxx "C" DIM. "D" DIM. "E" DIM.
<b>SERIES INDICATOR</b> D2PH = 2mm Dual Insulator Pin Header	<b>NO. OF ROWS</b> 1 = Single row 2 = Dual row		<b>PLATING</b> U = Gold plated T = Tin plated SG = Gold plating in contact area tin plating on solder tails	<b>STACKING DIMENSIONS</b> Specified In Inches As: "C" Dim. / "D" Dim. / "E" Dim. Replace "D" Dim. with "SMT" for Surface Mount Option
<b>POSITIONS</b> Single row: 2 thru 40 Dual row: 4 thru 80				

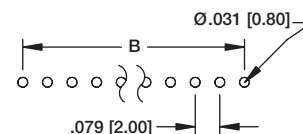
**OPTIONS:** Add designator(s) to end of part number

**SMT** = Surface Mount leads Dual Row  
**SMT-A** = Surface Mount leads Type A  
**SMT-B** = Surface Mount Leads Type B  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C  
(Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)  
**L** = Low profile 1.5mm insulator thickness  
**P** = Locating pegs  
**BR** = Board retention solder tails

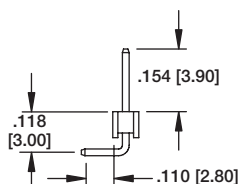
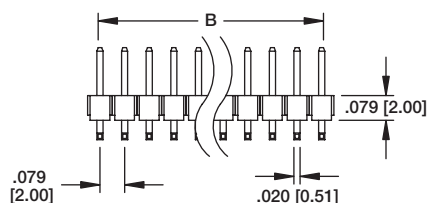
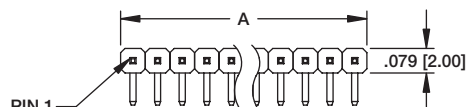


2PH1

2PH1-16-UA

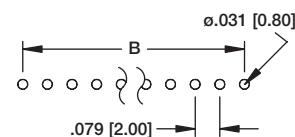


Recommended PCB Layout

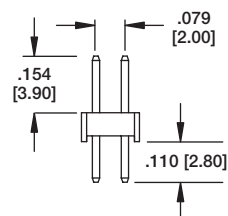
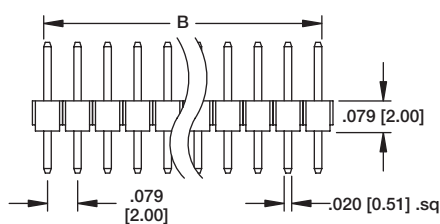
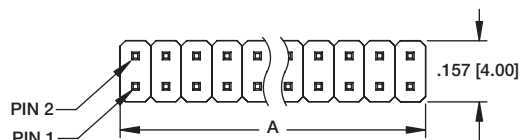


2PH1R

2PH1R-16-UA

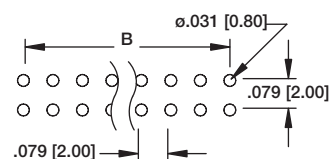


Recommended PCB Layout

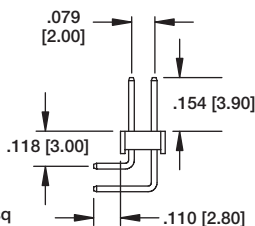
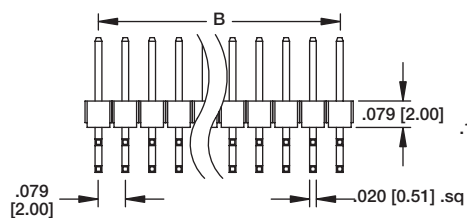
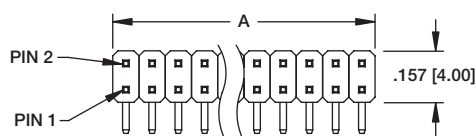


2PH2

2PH2-32-UA

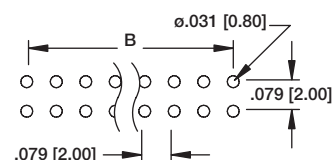


Recommended PCB Layout



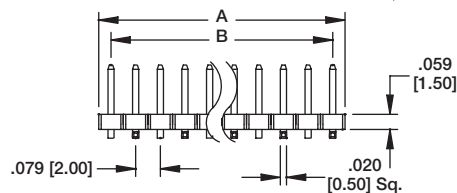
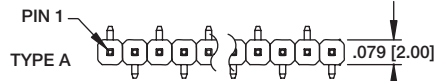
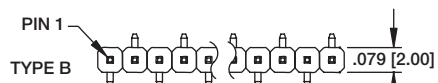
2PH2R

2PH2R-32-UA

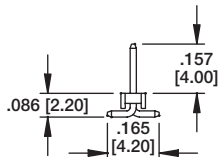


Recommended PCB Layout





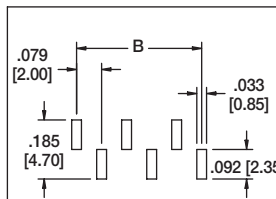
A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces



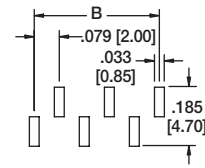
**2PH1 (SMT)**

**2PH1-15-UA-SMT-A-L**

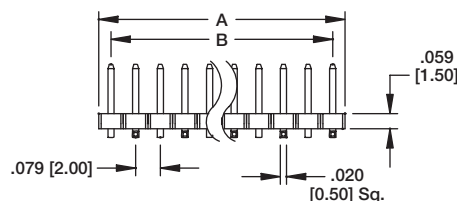
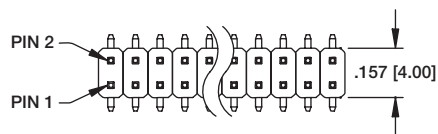
### Recommended PCB Layout



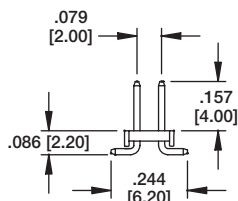
**SMT-A**



**SMT-B**



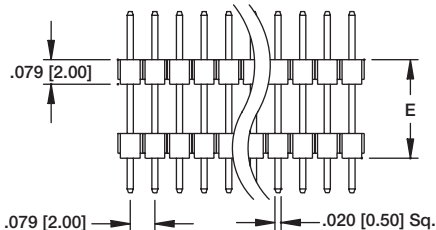
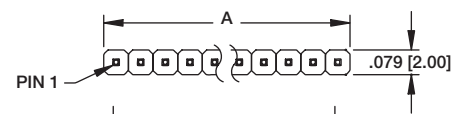
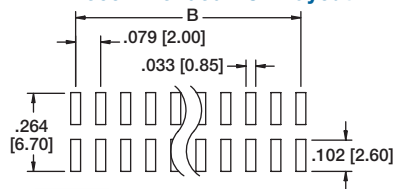
A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces



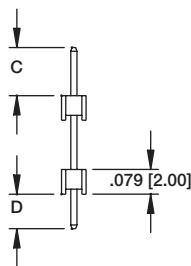
**2PH2 (SMT)**

**2PH2-26-UA-SMT-L**

### Recommended PCB Layout



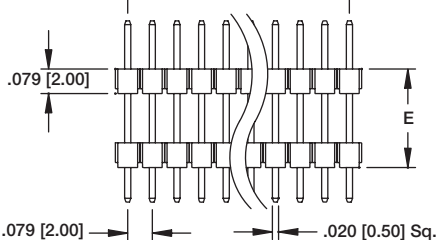
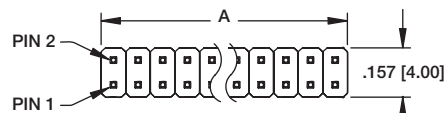
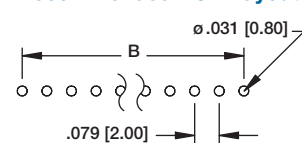
A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces



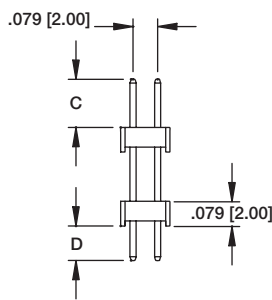
**D2PH-1**

**D2PH-1-16-U-.235 / .100 / .400**

### Recommended PCB Layout



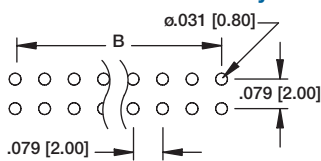
A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces



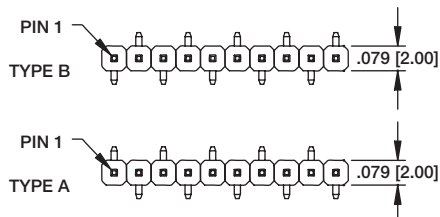
**D2PH-2**

**D2PH-2-32-U-.235 / .100 / .400**

### Recommended PCB Layout



### D2PH-1 (SMT)

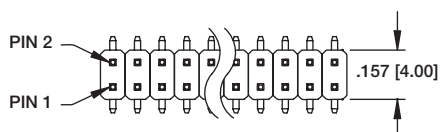
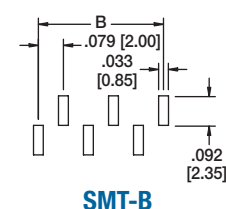
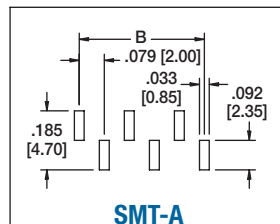
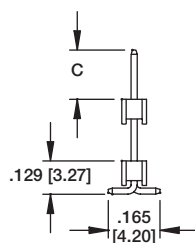
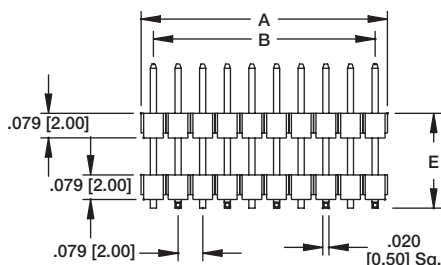


A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces

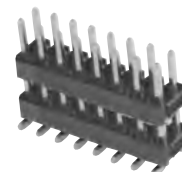


D2PH-1-12-U-.100/SMT-B/.240

#### Recommended PCB Layouts

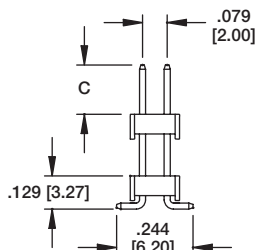
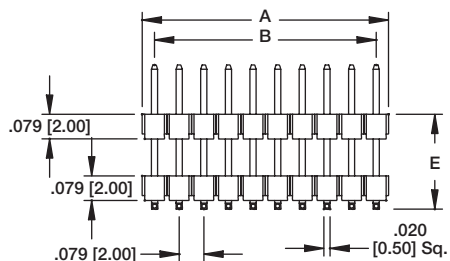


A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces

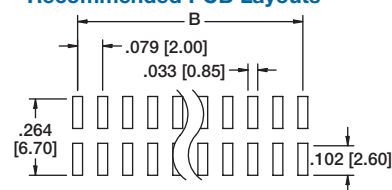


### D2PH-2 (SMT)

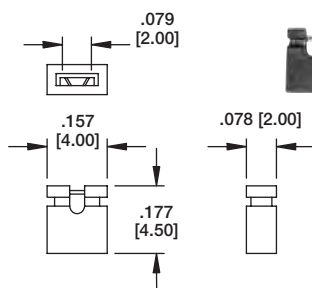
D2PH-2-16-U-.145/SMT/.360



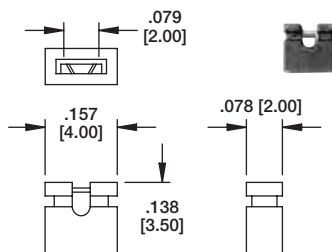
#### Recommended PCB Layouts



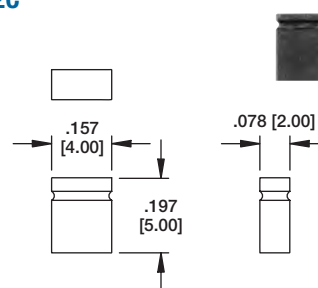
### MS2A



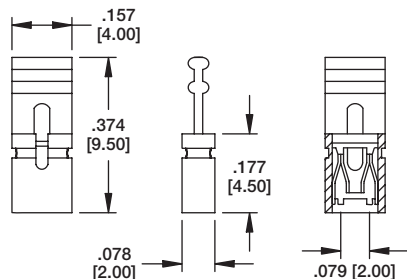
### MS2B



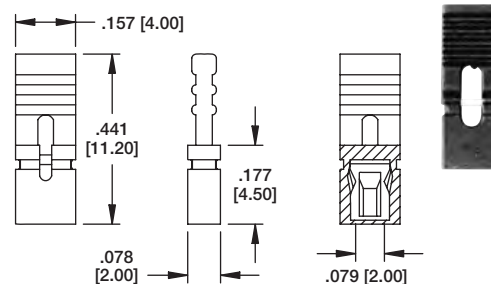
### MS2C



### MS2H-1 RIGID SHORT HANDLE



### MS2H-2 FLEXIBLE LONG HANDLE



### INTRODUCTION:

Adam Tech 2BHR Series 2.0mm Box Headers are dual row shrouded headers for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi-Temp insulator. Additional options include latches and custom pin lengths.

### FEATURES:

Shrouded, insulated connection  
Superior low profile design  
Slot for IDC socket Polarization bump  
Straight PCB, Right Angle PCB and SMT versions  
Gold, Tin or Selective Gold plating  
Options include Elevated types and integral latches  
Hi-Temp insulator available

### MATING SOCKETS:

Adam Tech .079" [2.0mm] X .079" [2.0mm] dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Standard insulator: PBT, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 cycles min.

#### Temperature Rating:

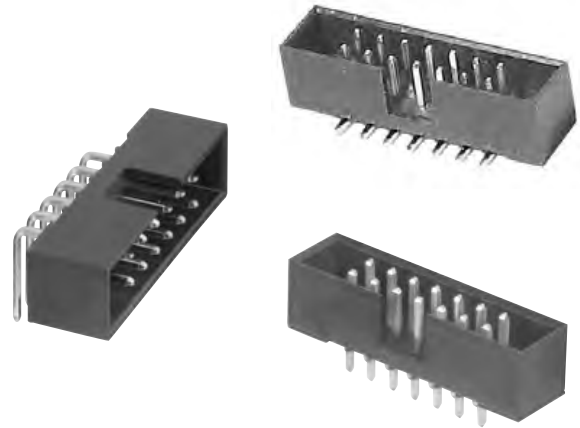
Operating temperature: -40°C to +105°C  
Soldering process temperature:  
Standard insulator: 235°C  
Hi-Temp insulator: 260°C

### PACKAGING:

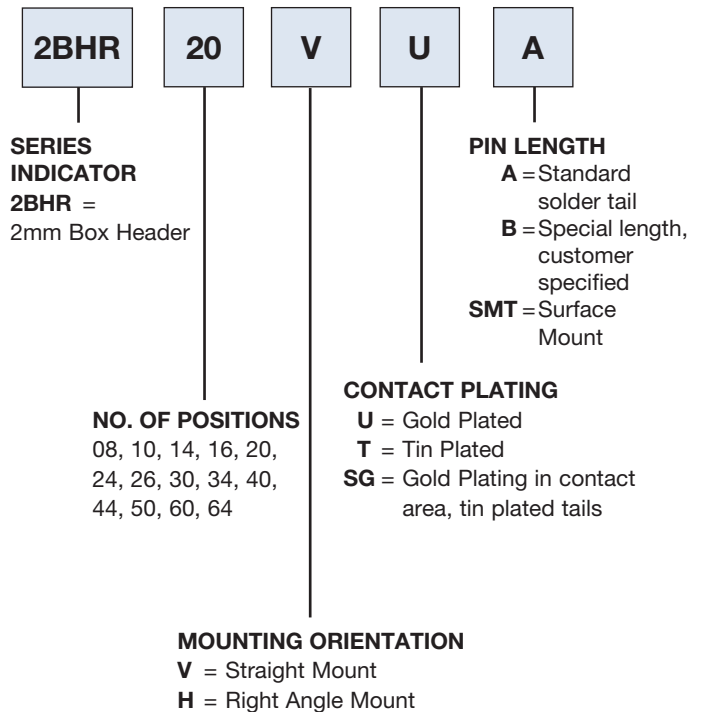
Anti-ESD plastic trays

### APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053



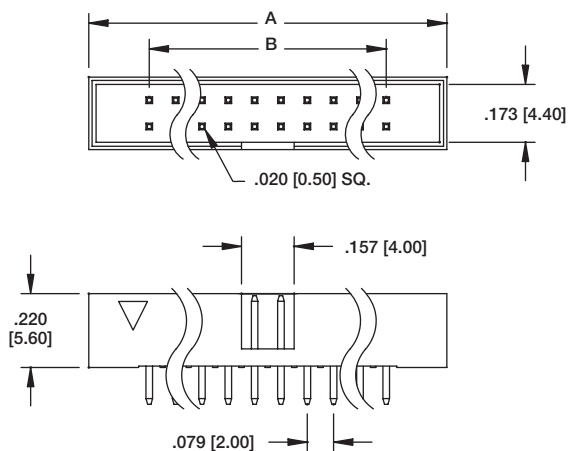
### ORDERING INFORMATION



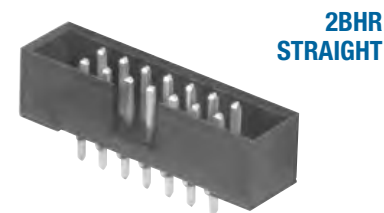
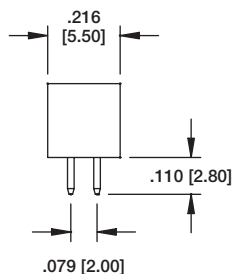
This series is available in an elevated version similar to our BHRE Series as shown on pgs. 286-287

### OPTIONS:

Add designator(s) to end of part number  
**30** = 30 μin gold plating in contact area  
**GY** = Gray color insulator  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

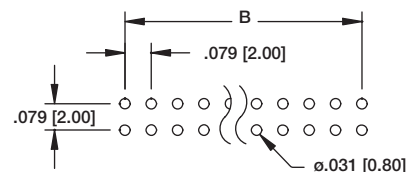


A = .079 [2.00] X No. of Spaces + .362 [9.20]  
B = .079 [2.00] X No. of Spaces

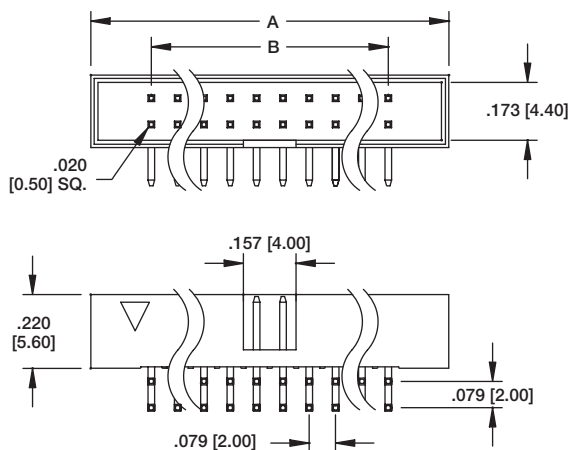


**2BHR  
STRAIGHT**

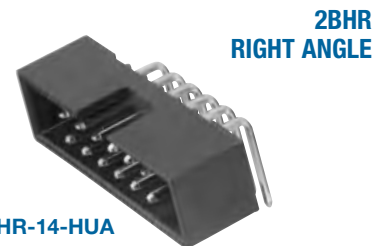
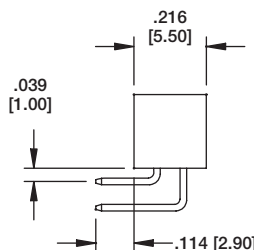
**2BHR-14-VUA**



**Recommended  
PCB Layout**

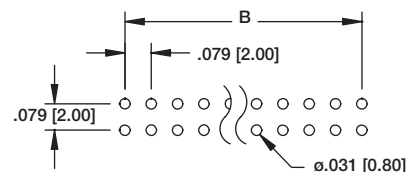


A = .079 [2.00] X No. of Spaces + .362 [9.20]  
B = .079 [2.00] X No. of Spaces

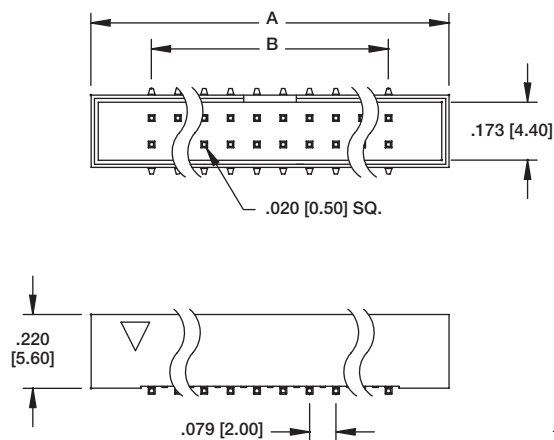


**2BHR  
RIGHT ANGLE**

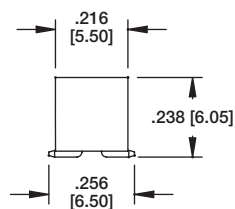
**2BHR-14-HUA**



**Recommended  
PCB Layout**

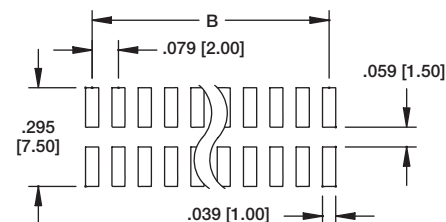


A = .079 [2.00] X No. of Spaces + .362 [9.20]  
B = .079 [2.00] X No. of Spaces



**2BHR  
SMT**

**2BHR-14-VUA-SMT**



**Recommended  
PCB Layout**

### INTRODUCTION:

Adam Tech 2MHR Series 2mm Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

### FEATURES:

Integral Latches provide Shock and Vibration Proof connection  
Slot for IDC socket Polarization bump  
Straight PCB, Right Angle PCB and SMT versions  
Gold, Tin or Selective Gold plating  
Elevated option available  
Hi-Temp insulator available

### MATING SOCKETS:

2mm X 2mm Dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Insulator Color: Black (Gray optional)  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate overall  
SG = Gold over nickel on contact area,  
Tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 Cycles min.

#### Temperature Rating:

Operating temperature: -40°C to +105°C

#### PACKAGING:

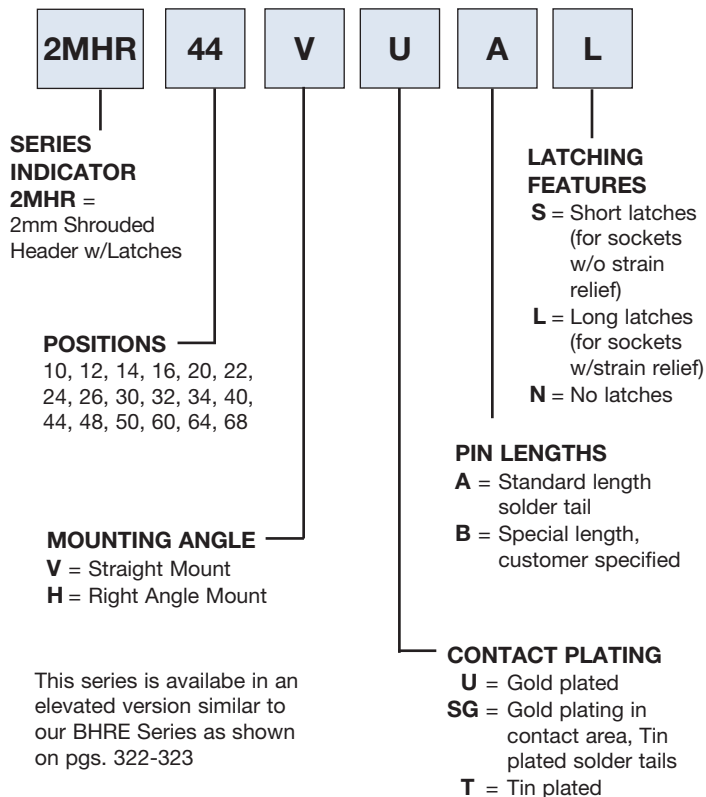
Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



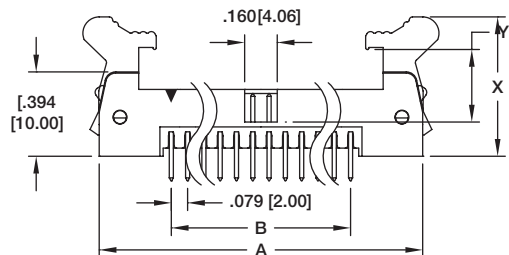
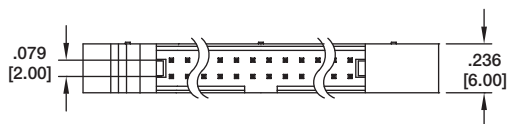
### ORDERING INFORMATION



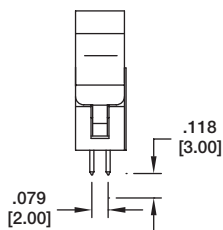
#### OPTIONS:

Add designator(s) to end of part number  
**HT** = High-temp insulator for high-temp soldering processes

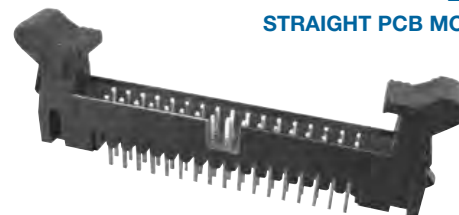




LATCH DIMENSIONS		
	X	Y
LONG LATCH	.775 [19.70]	.452 [11.50]
SHORT LATCH	.665 [16.90]	.342 [8.70]

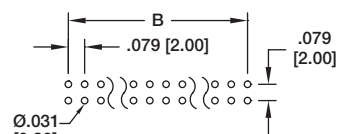


A = .079 [2.00] X No. of Spaces + .697 [17.70]  
B = .079 [2.00] X No. of Spaces

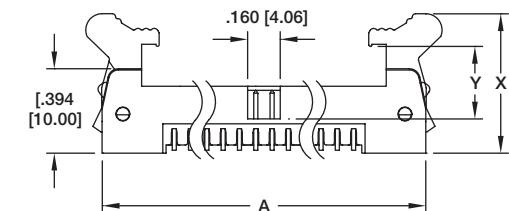
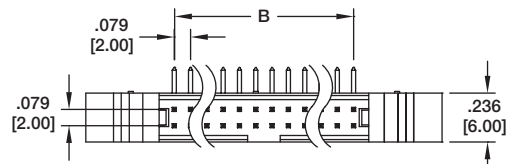


2MHR-34-VUAS

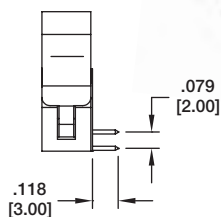
2MHR  
STRAIGHT PCB MOUNT



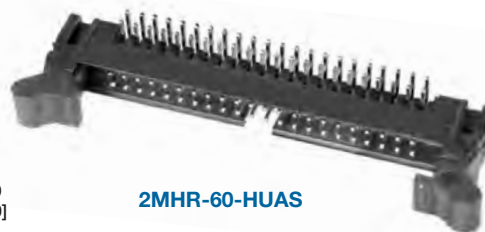
Recommended PCB Layout



LATCH DIMENSIONS		
	X	Y
LONG LATCH	.775 [19.70]	.452 [11.50]
SHORT LATCH	.665 [16.90]	.342 [8.70]

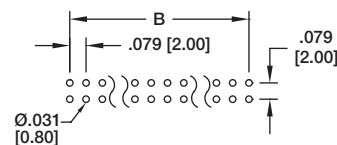


A = .079 [2.00] X No. of Spaces + .697 [17.70]  
B = .079 [2.00] X No. of Spaces

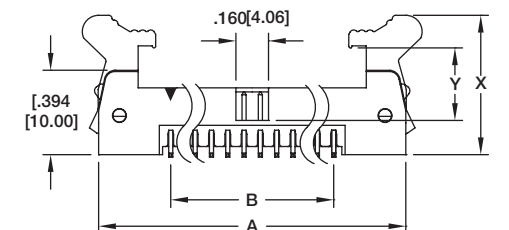
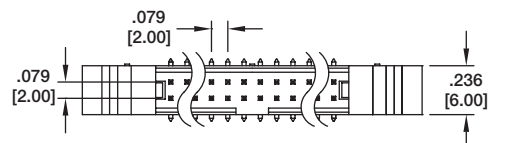


2MHR-60-HUAS

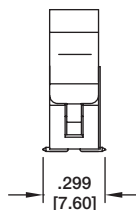
2MHR  
RIGHT ANGLE PCB MOUNT



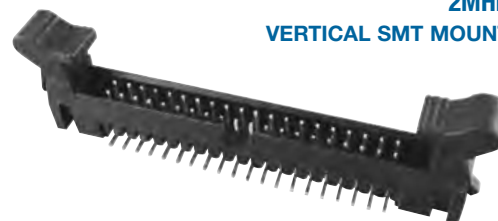
Recommended PCB Layout



LATCH DIMENSIONS		
	X	Y
LONG LATCH	.775 [19.70]	.452 [11.50]
SHORT LATCH	.665 [16.90]	.342 [8.70]

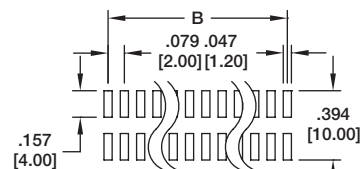


A = .079 [2.00] X No. of Spaces + .697 [17.70]  
B = .079 [2.00] X No. of Spaces



2MHR-40-HUAS

2MHR  
VERTICAL SMT MOUNT



Recommended PCB Layout

### INTRODUCTION:

Adam Tech 2RS Series 2.00mm Receptacle Strips are offered in several sizes and profiles designed to satisfy most 2.00mm socket requirements. Available in Single and Dual rows, they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which uses a wiping mating action and produces a high normal force connection with gold, tin or selective gold plating. All are available with Standard or Hi-Temp Thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape & reel packaging.

### FEATURES:

Single and dual row in straight, right angle and SMT mounting forms  
Top, side and bottom entry versions  
Plated full gold, full tin or duplex plated  
Five different body heights  
Standard PBT insulator or optional Hi Temp insulator  
Tape and reel packaging available

### MATING CONNECTORS:

Adam Tech 2PH headers and all industry standard 2.0mm pin headers with a .020" [0.5mm] square pin.

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Contact Plating:

G = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 0.313 lbs per contact max.  
Withdrawal force: 0.175 lbs per contact min.

#### Temperature Rating:

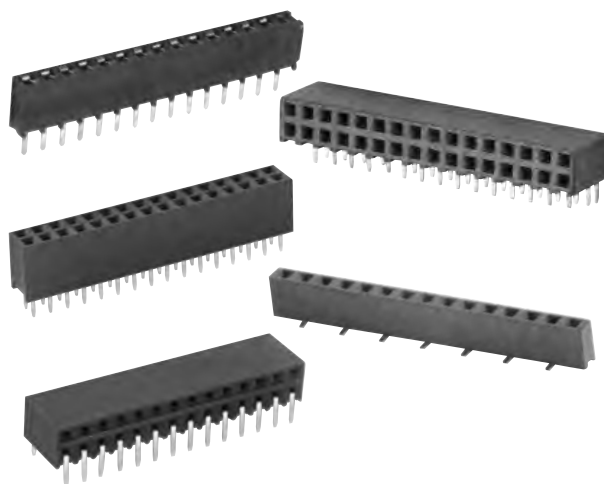
Operating temperature: -40°C to +105°C

#### PACKAGING:

Anti-ESD plastic trays  
(Tape and Reel optional for SMT option)

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

2RS1

40

G

#### SERIES INDICATOR

**2RS1** = 2.00mm Single Row, Vertical Mount, Receptacle

**2RS2** = 2.00mm Dual Row, Vertical Mount, Receptacle

**2RS1R** = 2.00mm Single Row, Right Angle, Receptacle

**2RS2R** = 2.00mm Dual Row, Right Angle, Receptacle

**2RS4** = 2.00mm 4 Row, Vertical Mount, Receptacle

**2RS2BR** = 2.00mm Dual Row, Right Angle, 3-Sided Contact Receptacle

**2RS1H** = 2.00mm Single Row, Vertical Mount, .248" Height Receptacle

**2RS2H** = 2.00mm Dual Row, Vertical Mount, .248" Height Receptacle

**2RS2T** = 2.00 mm Dual Row, Surface Mount, .106" Height, Top Entry Receptacle

**2RS2B** = 2.00mm Dual Row, Surface Mount, .106" Height, Bottom Entry Receptacle

#### PLATING

**G** = Gold plated  
**SG** = Gold plated contact area, tin plated solder tails  
**T** = Tin plated

#### POSITIONS

**SINGLE ROW:** 2 thru 40

**DUAL ROW:** 4 thru 80

**FOUR ROW:** 8 thru 120

#### OPTIONS:

Add designator(s) to end of part number

**30** = 30 μin gold plating in contact area

**SMT** = SMT leads with Hi-Temp insulator dual row

**SMT-A** = SMT Single Row Type A with Hi-Temp insulator

**SMT-B** = SMT Single Row Type B with Hi-Temp insulator

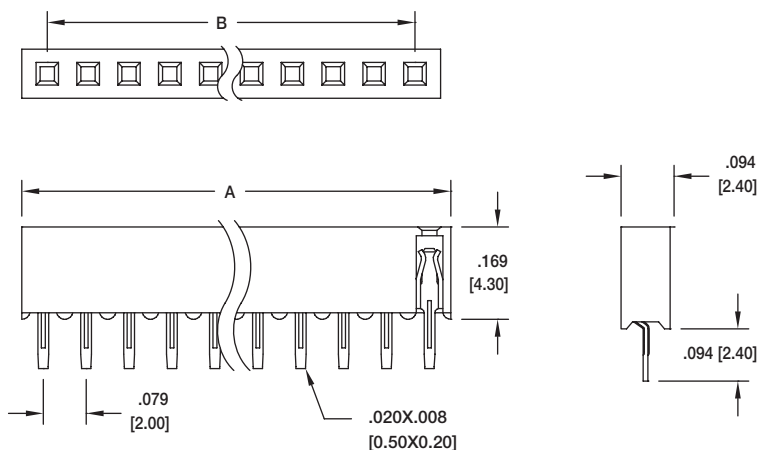
**P** = Optional guide peg on SMT version

**PP** = Pick and place pad

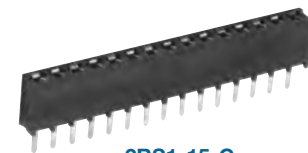
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only.)

All SMT products are manufactured with Hi-Temp insulators

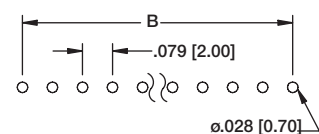
### 2RS1



A = .079 [2.00] X No. of Positions  
B = .079 [2.00] X No. of Spaces

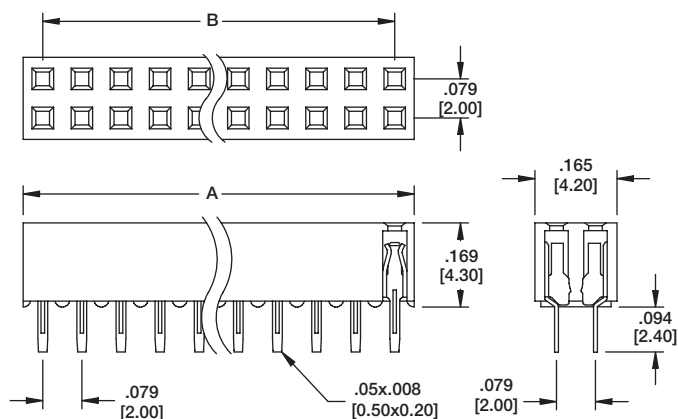


2RS1-15-G

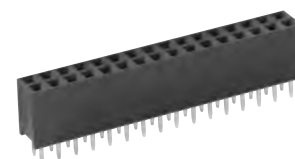


Recommended PCB Layout

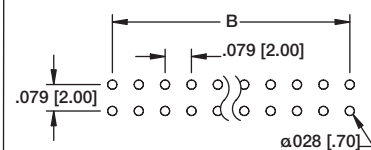
### 2RS2



A = .079 [2.00] X No. of Positions per row  
B = .079 [2.00] X No. of Spaces

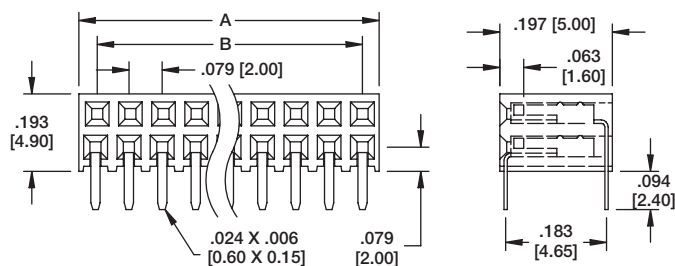


2RS2-32-G

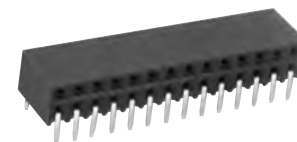


Recommended PCB Layout

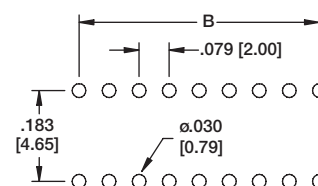
### 2RS2BR



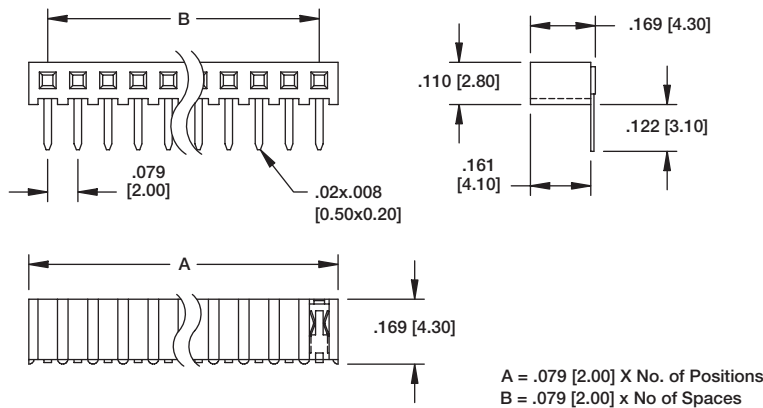
A = .079 [2.00] X No. of Positions per row + .008 [0.20]  
B = .079 [2.00] X No. of Spaces



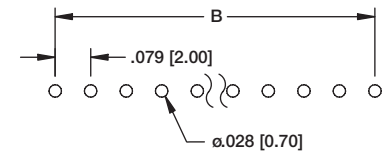
2RS2BR-28-G



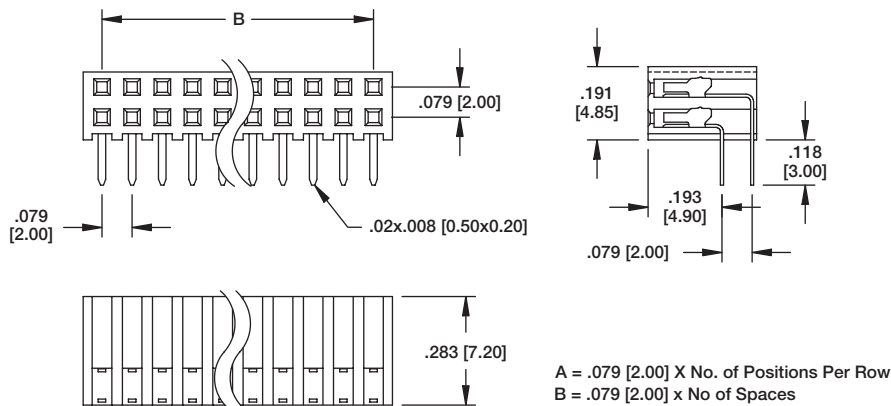
Recommended PCB Layout



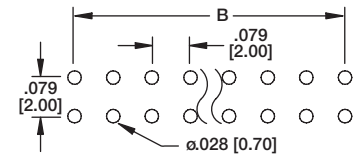
**2RS1R**



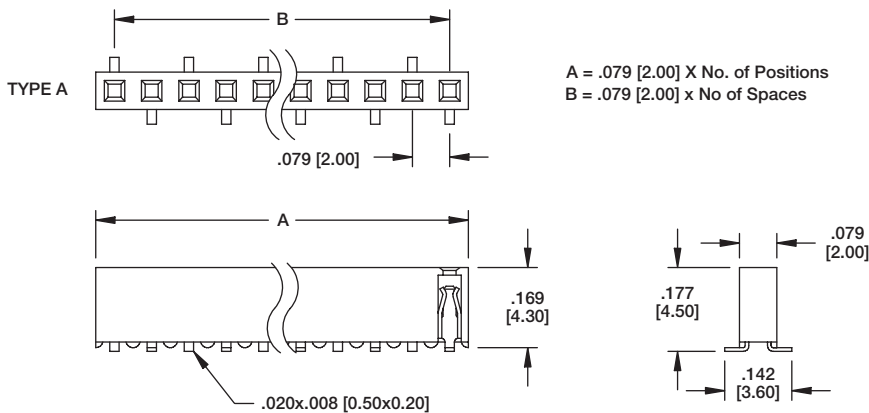
**Recommended PCB Layout**



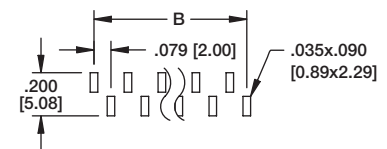
**2RS2R**



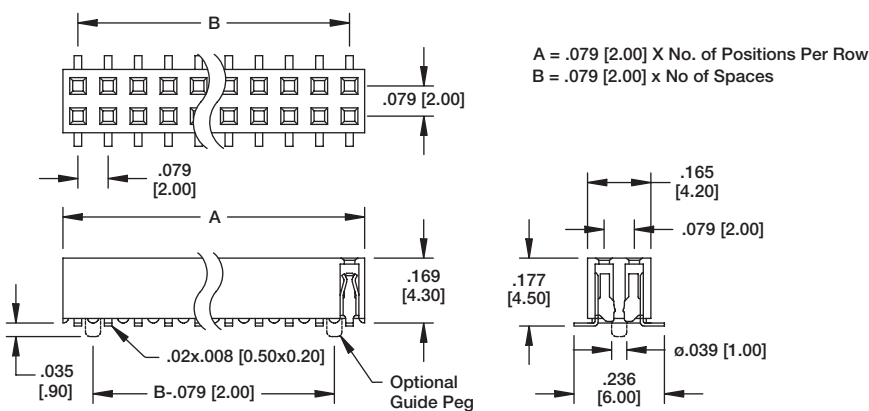
**Recommended PCB Layout**



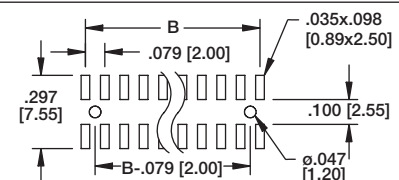
**2RS1-SMT**



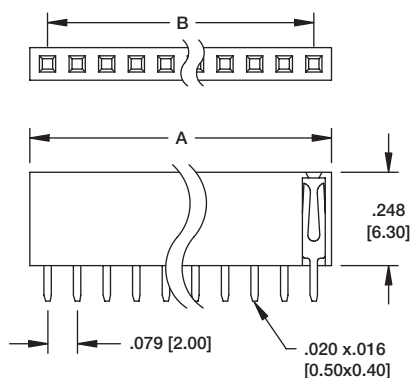
**Recommended PCB Layout**



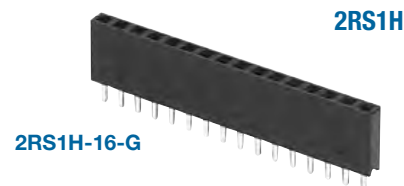
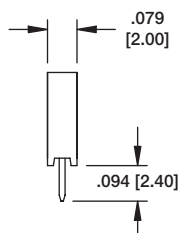
**2RS2-SMT**



**Recommended PCB Layout**

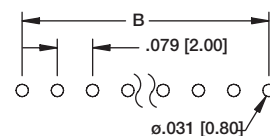


A = .079 [2.00] X No. of Positions  
B = .079 [2.00] x No of Spaces

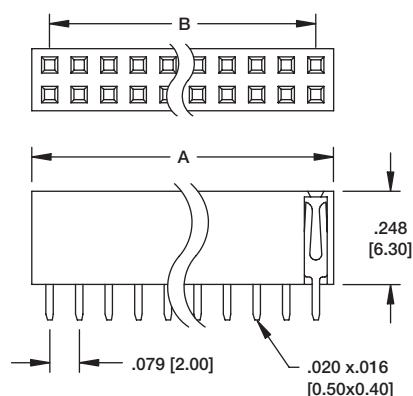


2RS1H-16-G

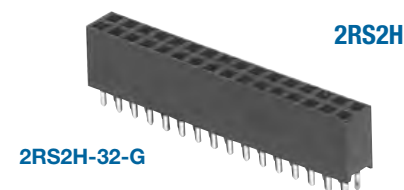
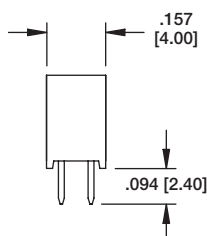
2RS1H



Recommended PCB Layout

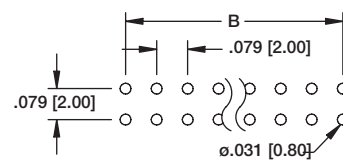


A = .079 [2.00] X No. of Positions Per Row  
B = .079 [2.00] x No of Spaces

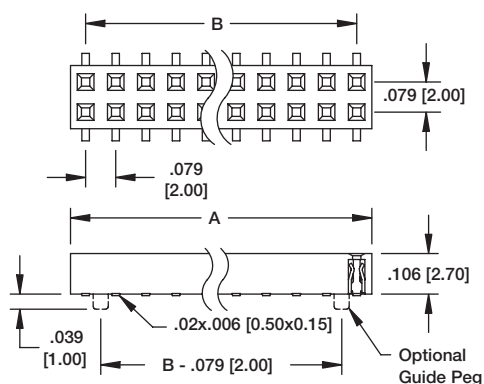


2RS2H-32-G

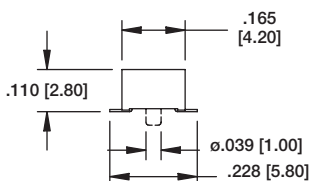
2RS2H



Recommended PCB Layout



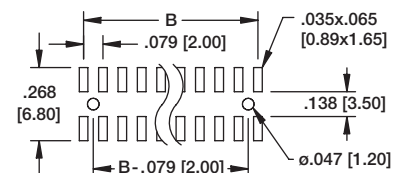
A = .079 [2.00] X No. of Positions Per Row  
B = .079 [2.00] x No of Spaces



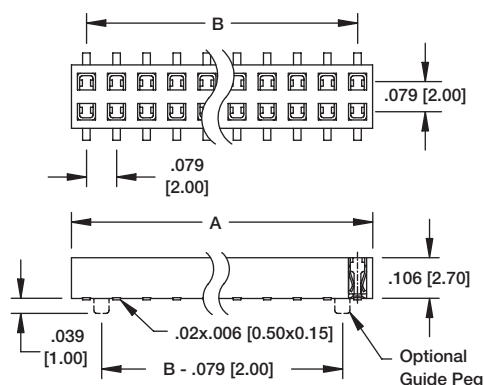
2RS2T-20-SG-SMT

2RS2T-SMT

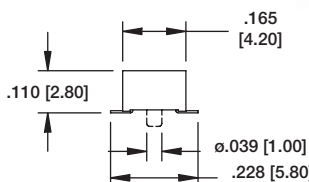
TOP ENTRY SOCKET



Recommended PCB Layout



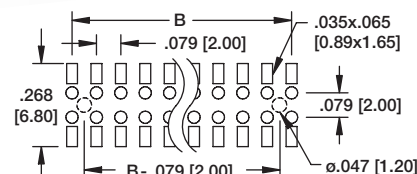
A = .079 [2.00] X No. of Positions Per Row  
B = .079 [2.00] x No of Spaces



2RS2B-20-SG-SMT

2RS2B-SMT

BOTTOM ENTRY SOCKET



Recommended PCB Layout



### INTRODUCTION:

Adam Tech PH Series .100" Pin Headers are a full range headers in a variety of configurations including Single, Dual and Three rows, Straight or Right Angle in Thru-Hole or SMT mounting. Their close tolerance .025" sq. posts are smoothly finished and taper tipped to eliminate insertion damage to the PCB or mating connector. Adam Tech Pin Headers can be easily cut into exact sizes as required. Options include stacked insulator versions and choice of tin, gold or selective gold plating. This series is compatible with all industry standard .100" pitch pin headers.

### FEATURES:

Single, Dual or Three Row  
Tin, gold or selective gold plating options  
Thru-hole or SMT mounting  
Stacked and Custom length versions available  
Versatile Breakaway design  
Hi Temp Insulator available

### MATING RECEPTACLES:

Mates with all industry standard receptacles accepting a .025" square post on .100" [2.54mm] centerlines

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 3 Amps max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 2 oz lbs max.  
Withdrawal force: .75 oz lbs min  
Mating durability: 1000 cycles min.

#### Temperature Rating:

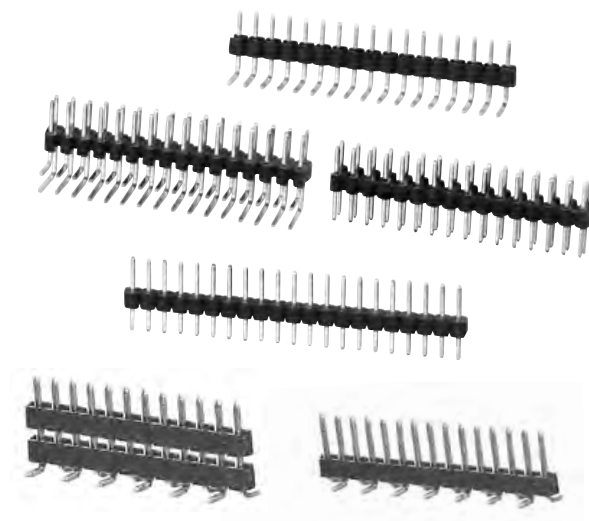
Operating temperature: -40°C to +105°C  
Soldering process temperature:  
Standard insulator: 235°C  
Hi-Temp insulator: 260°C

#### PACKAGING:

Anti-ESD plastic bags

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

PH1	40	U	A
<b>SERIES INDICATOR</b>		<b>MATING/TAIL LENGTH</b>	
PH1 = Single Row, Straight		A = Mating Length ("C" dim.) = .235"	
PH1RA = Single Row, Right Angle, High Profile		Solder Tail ("D" dim.) = .120"	
PH1RB = Single Row, Right Angle, Low Profile		B = Mating Length ("C" dim.) = .318"	
PH2 = Dual Row, Straight		Solder Tail Length ("D" dim.) = .120"	
PH2RA = Dual Row, Right Angle		Special lengths available contact factory	
PH3 = Three Row, Straight		<b>PLATING</b>	
PH3RA = Three Row, Right Angle		U = Gold flash overall	
<b>POSITIONS</b>		V = 15 μin gold on mating area 100 μin tin on solder tail	
PH1: 1 thru 40		W = 30 μin gold on mating area 100 μin tin on solder tail	
PH2: 2 thru 80		T = 100 μin tin overall	
PH3: 3 thru 120		SG = Gold flash on mating area 100 μin tin on solder tail	

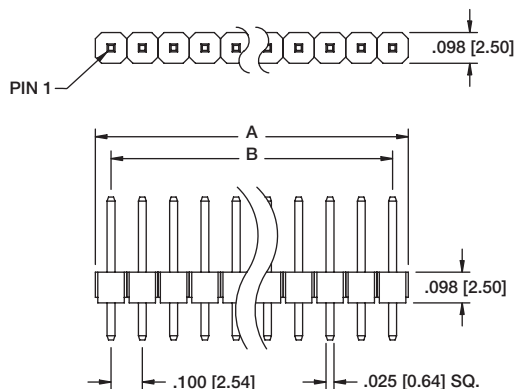
#### OPTIONS:

Add designator(s) to end of part number

**SMT** = Surface mount leads Dual row with Hi-Temp insulator  
**SMT-A** = Surface mount leads Type A with Hi-Temp insulator  
**SMT-B** = Surface mount leads Type B with Hi-Temp insulator  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only.)  
All SMT products are manufactured with Hi-Temp insulators)  
**L** = Low profile 1.50 mm insulator thickness

A = .100 [2.54] X No. of Positions.

B = .100 [2.54] X No. of Spaces.

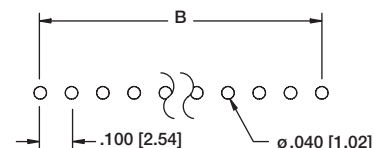


**PH1**  
**SINGLE ROW**



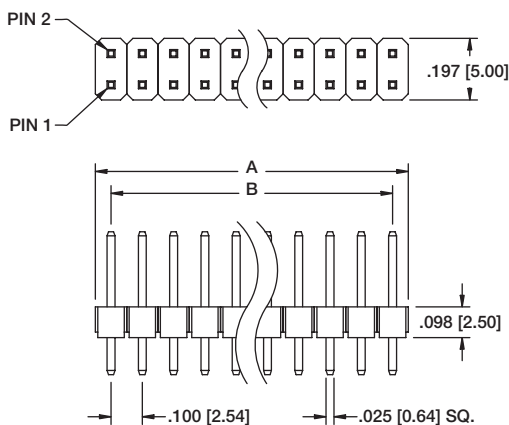
**PH1-16-UA**

**Recommended PCB Layout**



A = .100 [2.54] X No. of Positions per row.

B = .100 [2.54] X No. of Spaces.

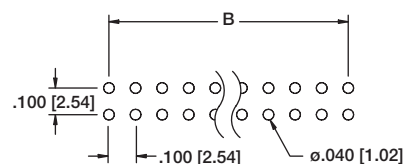


**PH2**  
**DUAL ROW**



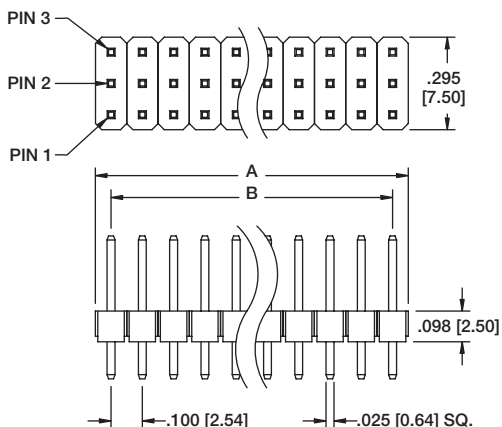
**PH2-32-UA**

**Recommended PCB Layout**

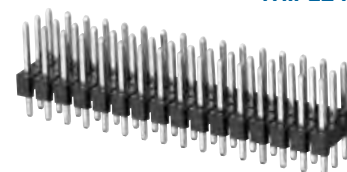


A = .100 [2.54] X No. of Positions per row.

B = .100 [2.54] X No. of Spaces.

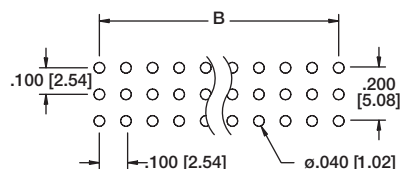


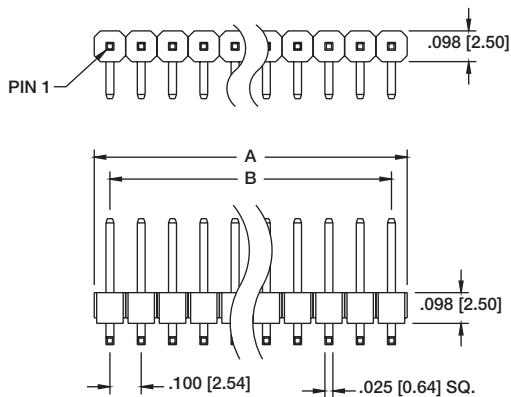
**PH3**  
**TRIPLE ROW**



**PH3-48-UA**

**Recommended PCB Layout**





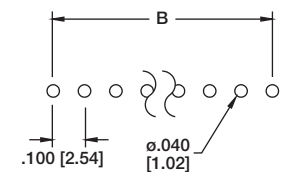
A = .100 [2.54] X No. of Positions.  
B = .100 [2.54] X No. of Spaces.

**PH1RB**  
SINGLE ROW

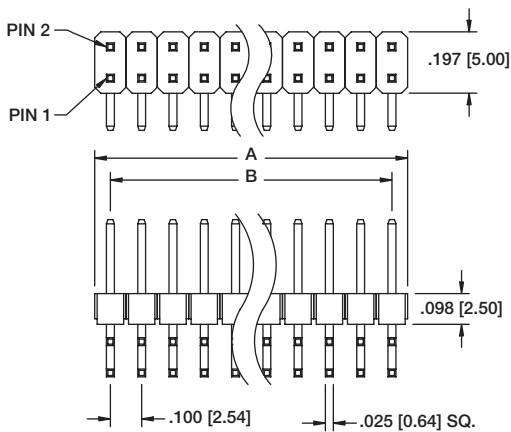


**PH1RB-16-UA**

**Recommended PCB Layout**



A = .100 [2.54] X No. of Positions per row.  
B = .100 [2.54] X No. of Spaces.

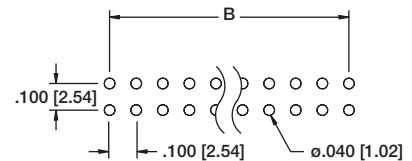


**PH2RA**  
DUAL ROW

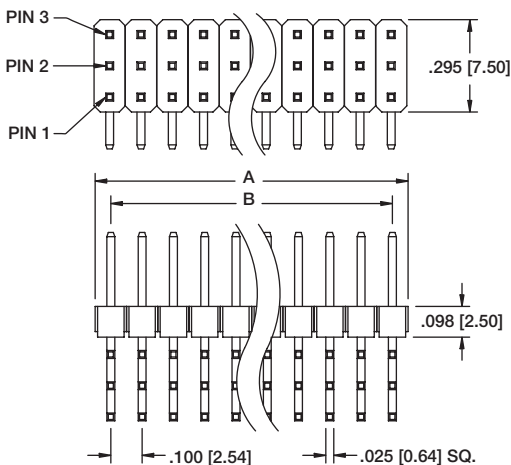


**PH2RA-32-UA**

**Recommended PCB Layout**



A = .100 [2.54] X No. of Positions per row.  
B = .100 [2.54] X No. of Spaces.

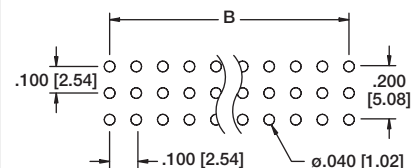


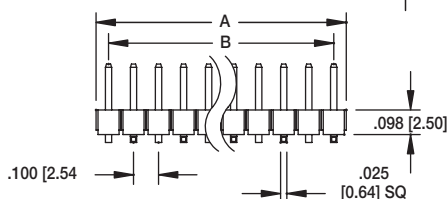
**PH3RA**  
TRIPLE ROW



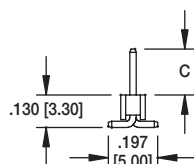
**PH3RA-48-UA**

**Recommended PCB Layout**





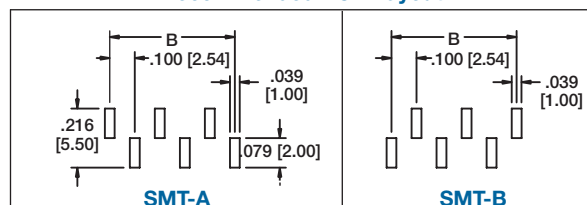
A = .100 [2.54] X No. of Positions.  
B = .100 [2.54] X No. of Spaces.



PH1-15-UA-SMT-B

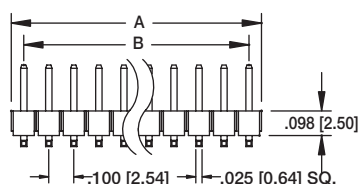
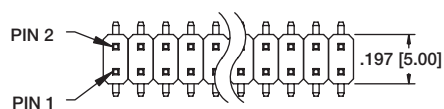
**PH1**  
**SMT-SINGLE ROW**  
**STRAIGHT**

**Recommended PCB Layout**

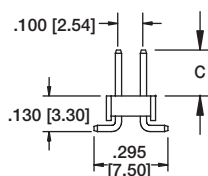


**SMT-A**

**SMT-B**



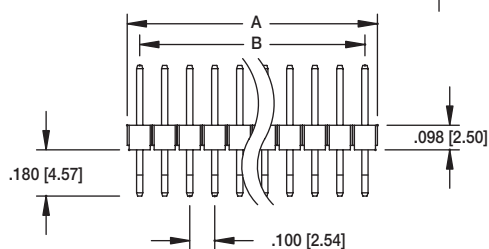
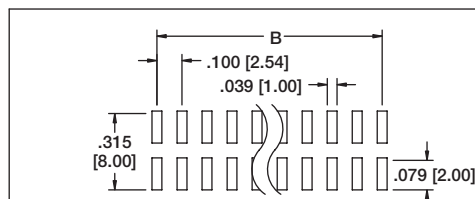
A = .100 [2.54] X No. of Positions per row.  
B = .100 [2.54] X No. of Spaces.



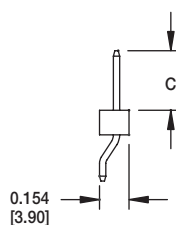
PH2-26-UA-SMT

**PH2**  
**SMT-DUAL ROW**  
**STRAIGHT**

**Recommended PCB Layout**



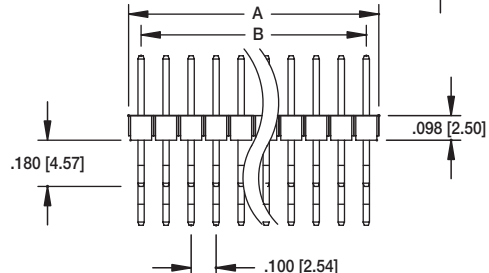
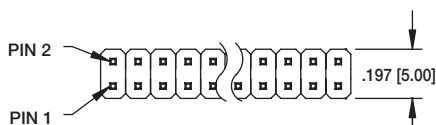
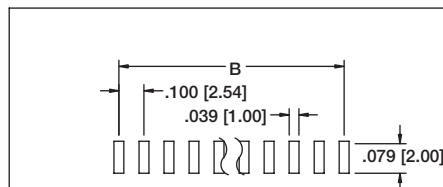
A = .100 [2.54] X No. of Positions.  
B = .100 [2.54] X No. of Spaces.



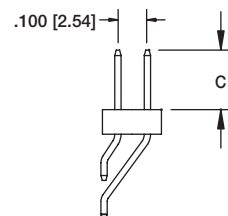
PH1RB-10-UA-SMT

**PH1RB**  
**SMT-SINGLE ROW**  
**RIGHT ANGLE**

**Recommended PCB Layout**



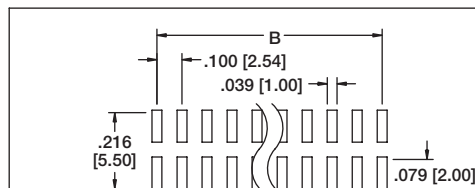
A = .100 [2.54] X No. of Positions per row.  
B = .100 [2.54] X No. of Spaces.



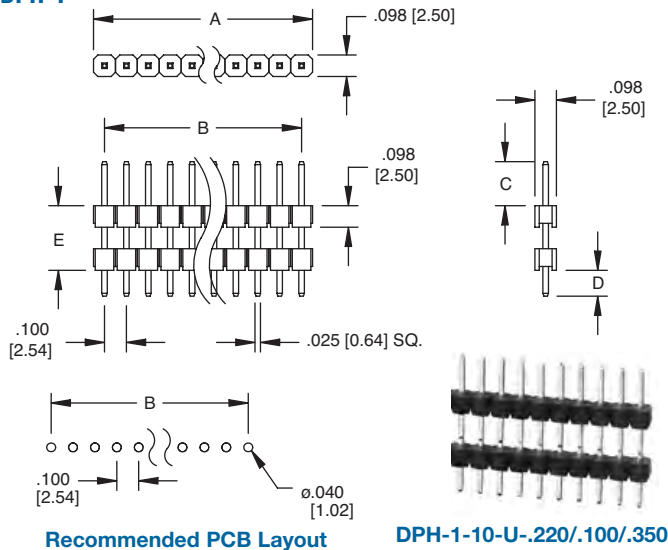
PH2RA-20-UA-SMT

**PH2RA**  
**SMT-DUAL ROW**  
**RIGHT ANGLE**

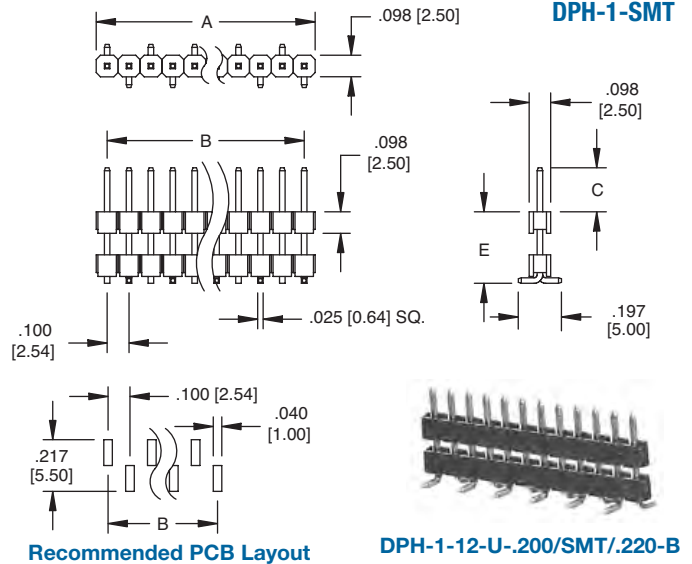
**Recommended PCB Layout**



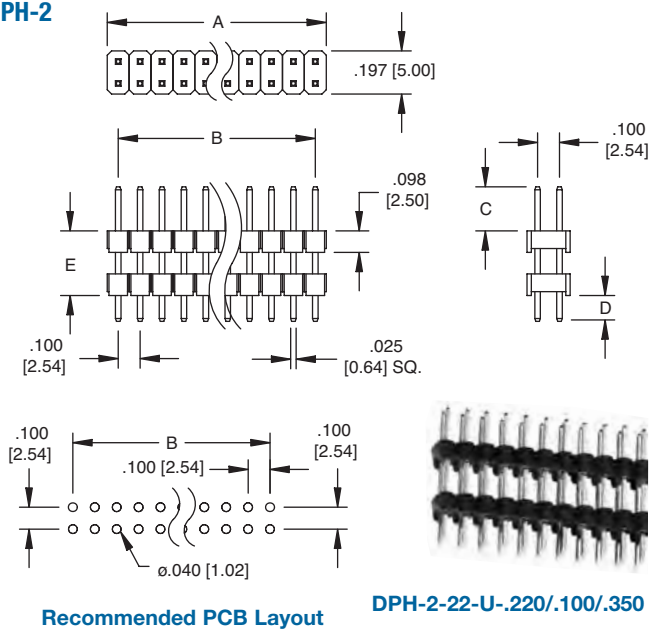
### DPH-1



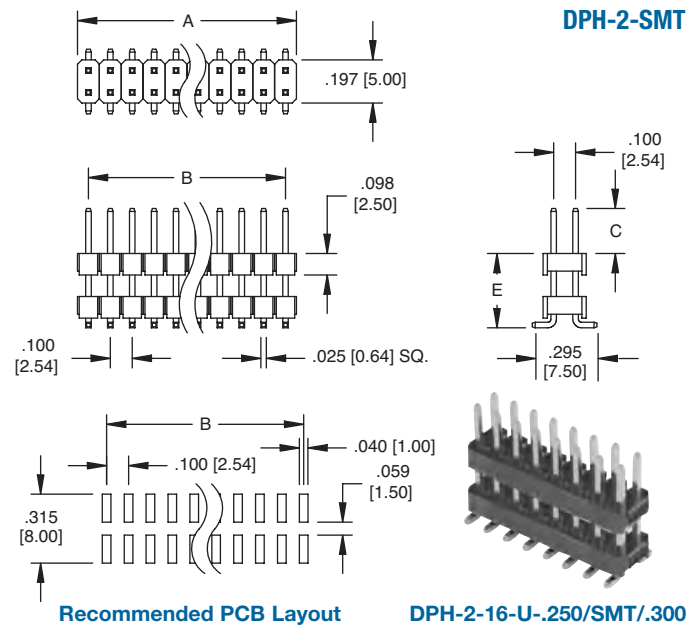
### DPH-1-SMT



### DPH-2



### DPH-2-SMT



## ORDERING INFORMATION

**DPH**

**SERIES INDICATOR**  
DPH = Dual insulator  
.100" centerline

**2**

**NO. OF ROWS**  
1 = Single row  
2 = Dual row  
3 = Triple row

**20**

**POSITIONS**  
1 thru 40 (single row)  
4 thru 80 (dual row)  
3 thru 120 (triple row)

**SG**

**PLATING**  
U = Gold plated  
T = Tin plated  
SG = Gold plating  
in contact  
area, tin plating  
on solder tails

**.XXX"/.XXX"/.XXX"**  
(C DIM) (D DIM) (E DIM)

**SPECIFIED IN INCHES AS:**  
C DIM. / D DIM. / E DIM.  
(replace D Dim. with SMT  
for surface mount option)

A = .100 [2.54] x No. of Positions.  
B = .100 [2.54] x No. of Spaces.

### INTRODUCTION:

Adam Tech MS Series Mini Shunts are available in .050", 2.0mm, .100" and .200" centerlines. They quickly and easily jump individual pins on pin headers to perform manual programming on PCB's. This series offers a broad range of sizes, shapes and colors. Shunts are designed with detents at top for easy fingertip installation and removal. Options include integrated pull tabs and gang types which are molded in one piece. This series is extremely low cost and is a highly economical, cost effective solution to replacing PCB switches. Adam Tech's shunts are available in Gold or Tin plating.

### FEATURES:

Electrically connects two or more pin header posts  
Wide variety of bodies and styles to choose from  
Superior insulator design provides easy Fingertip extraction  
Pull Tab and Ganged options available  
Choice of Gold or Tin-plated contact area  
Side and end stackable

### MATING OPTIONS:

Mates with .025" sq. pin headers on .100" centers and all industry standard pin headers with .025" square post on .100" [2.54mm] centerlines.

### SPECIFICATIONS:

#### Material:

Insulator: PBT, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Contact Plating:

G = Gold over nickel underplate overall  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 3 Amps max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 1.57 lbs max.  
Withdrawal force: .65 lbs min  
Mating durability: 50 Cycles Gold  
20 Cycles Tin

#### Temperature Rating:

Operating temperature: -40°C to +105°C

### PACKAGING:

Anti-ESD plastic bags

### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

**MSB**

**G**

#### BODY STYLE/HEIGHT

**MSA** = Closed top, .256"  
**MSB** = Open top, .236"  
**MSC** = Open top, .177"  
**MSDA** = Closed top, .315"  
**MSDB** = Open top, .315"  
**MSBH** = Handle-top, .531"  
**HMSA** = .050" Mini Shunt (1 x 2)  
**HMSB** = .050" Mini Shunt (2 x 2)  
**HMSC** = .050" Mini Shunt, .118"  
**MSE** = Closed top, 3 position  
**MST** = 10 piece strip  
**MSBG** = Ganged, block type  
(Specify # of positions, 2 thru 10)

#### PLATING

**G** = Gold plated  
**T** = Tin plated

2.00mm SHUNTS - pg. 267

### OPTIONS:

Add designator(s) to end of part number  
30 = 30 μin gold plating in contact area


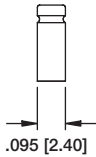
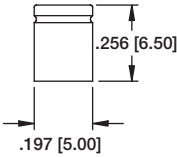


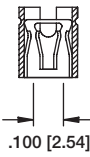
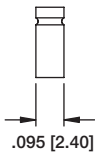
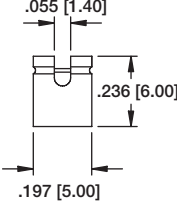


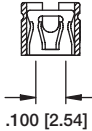
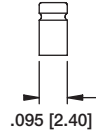
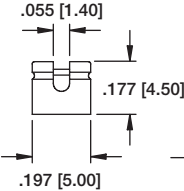


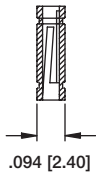
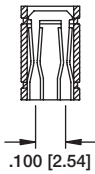
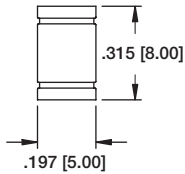


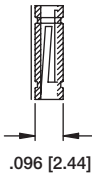
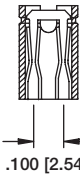
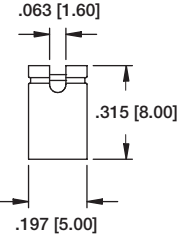


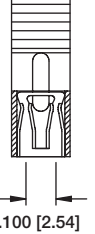
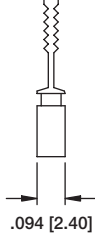
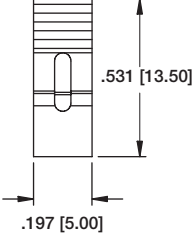


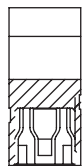
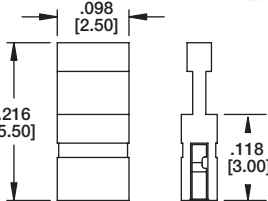

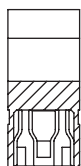
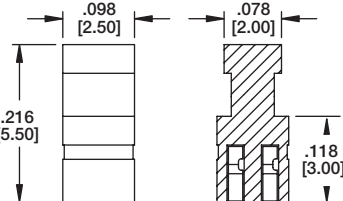

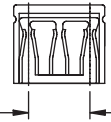
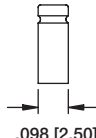
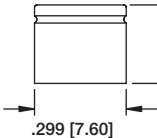


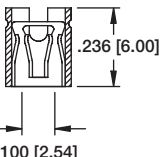

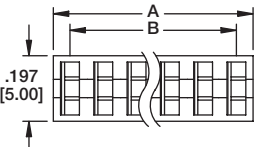

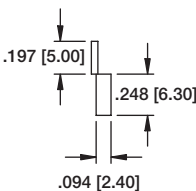
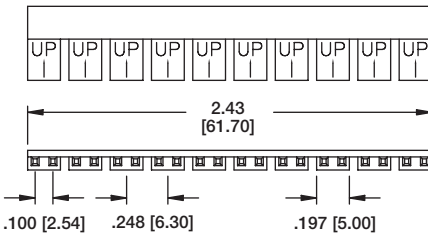

STANDARD INSULATOR COLOR IS BLACK  
Other insulator colors available

Add designator(s) to end of part number

**R** = Red \*  
**B** = Blue \*  
**W** = White \*  
**Y** = Yellow \*  
**G** = Green \*

\* Minimum order required



<div>MSA .100"</div> <div></div>	<div>MSB .100"</div> <div></div>	
<div>MSC .100"</div> <div></div>	<div>MSDA .100"</div> <div></div>	
<div>MSDB .100"</div> <div></div>	<div>MSBH .100"</div> <div></div>	
<div>HMSA (1 X 2) .050"</div> <div></div>	<div>HMSB (2 X 2) .050"</div> <div></div>	<div>MSE .200" 3P JUMPER</div> <div></div>
<div>A - .100 [2.54] X No of Positions B = .100 [2.54] X No of Spaces</div> <div>MSBG .100" GANGED BLOCK</div> <div></div>	<div>MST .100" 10 PC. STRIP</div> <div></div>	

### INTRODUCTION:

Adam Tech BHR Series .100" Box Headers are a dual row shrouded header for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi-Temp insulator. Additional options include latches and custom pin lengths.

### FEATURES:

- Superior low profile design
- Slot for IDC socket Polarization bump
- Straight PCB, Right Angle PCB and SMT versions
- Gold, Tin or Selective Gold plating
- Options include Elevated types and integral latches
- Hi-Temp insulator available

### MATING SOCKETS:

Adam Tech .100" X .100" dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black (Gray optional)  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 cycles min.

#### Temperature Rating:

Operating temperature: -40°C to +105°C

#### PACKAGING:

Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

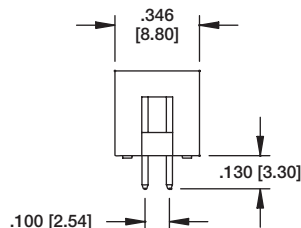
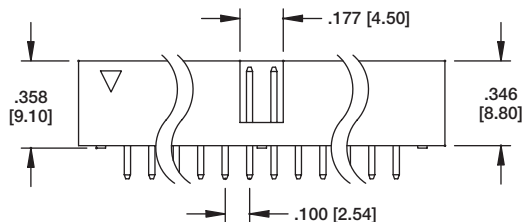
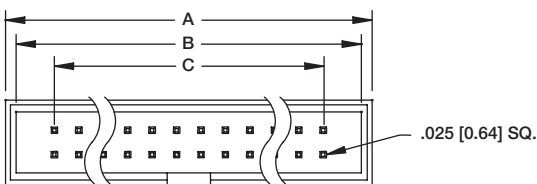
BHR	50	V	U	A
<b>SERIES INDICATOR</b> BHR = .100" Box Header	<b>NO. OF POSITIONS</b> 08, 10, 14, 16, 20, 24, 26, 30, 34, 40, 44, 50, 60, 64	<b>MOUNTING ORIENTATION</b> V = Straight Mount H = Right Angle Mount	<b>CONTACT PLATING</b> U = Gold Plated T = Tin Plated SG = Gold Plating in contact area, tin plated tails	<b>PIN LENGTH</b> A = Standard solder tail B = Special length, customer specified SMT = Surface Mount

### OPTIONS:

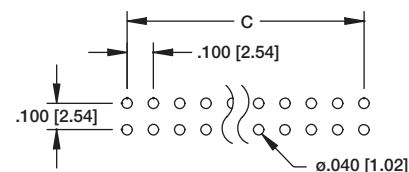
Add designator(s) to end of part number  
**LL** = Box header with long plastic latches  
**SL** = Box header with short plastic latches  
**ML** = Box header with long metal latches  
**MS** = Box header with short metal latches  
**30** = 30 μin gold plating in contact area  
**GY** = Gray color insulator  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only.  
*All SMT products are manufactured with Hi-Temp insulators)*

### BHR

#### STRAIGHT PCB MOUNT



**BHR-34-VUA**

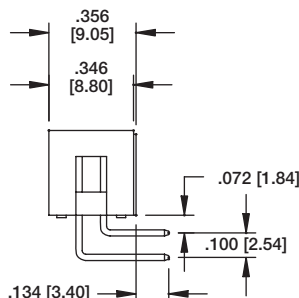
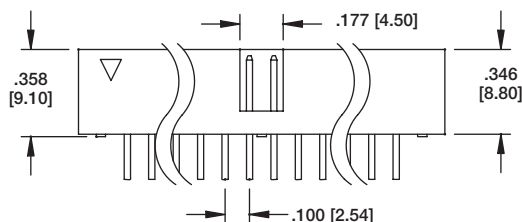
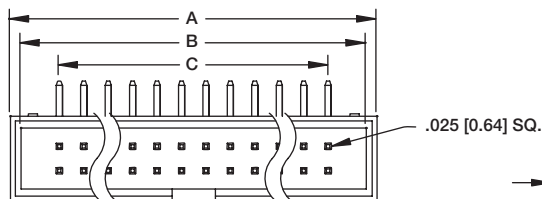


**Recommended PCB Layout**

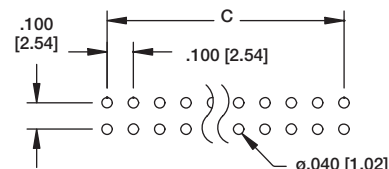
A = .100 [2.54] X No. of Positions / 2 + .300 [7.62]  
B = .100 [2.54] X No. of Positions / 2 + .200 [5.08]  
C = .100 [2.54] X No. of Spaces

### BHR

#### RIGHT ANGLE PCB MOUNT



**BHR-34-HUA**

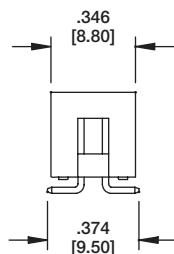
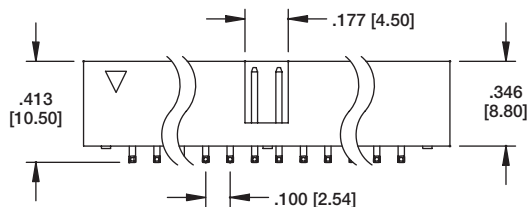
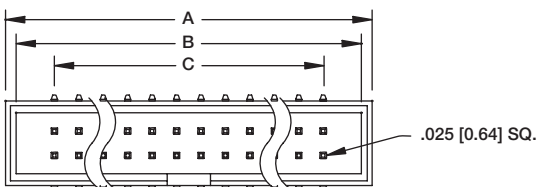


**Recommended PCB Layout**

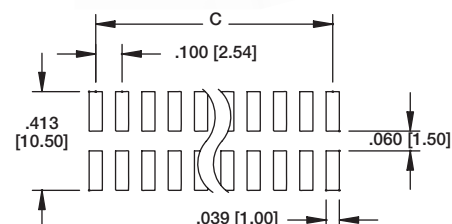
A = .100 [2.54] X No. of Positions / 2 + .300 [7.62]  
B = .100 [2.54] X No. of Positions / 2 + .200 [5.08]  
C = .100 [2.54] X No. of Spaces

### BHR

#### SURFACE MOUNT



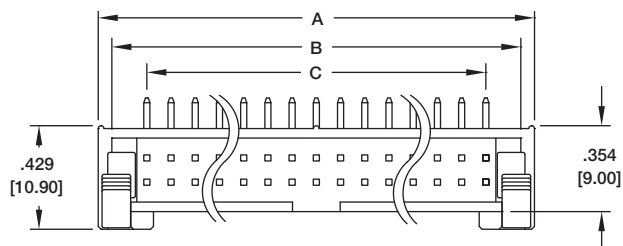
**BHR-30-VSG-SMT**



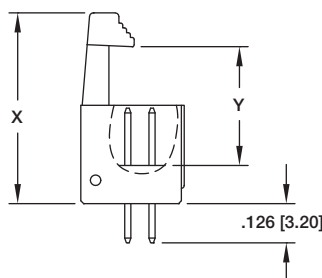
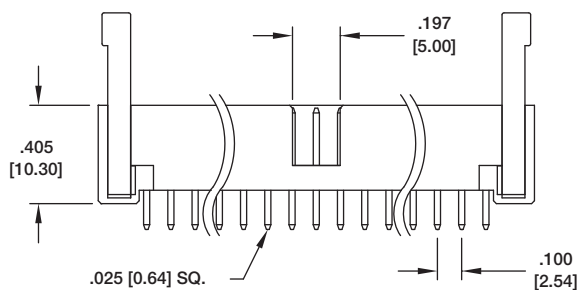
**Recommended PCB Layout**

A = .100 [2.54] X No. of Positions / 2 + .300 [7.62]  
B = .100 [2.54] X No. of Positions / 2 + .200 [5.08]  
C = .100 [2.54] X No. of Spaces

### BHR STRAIGHT MOUNT BOX HEADER WITH LATCHES

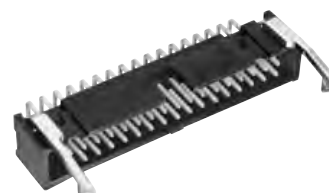
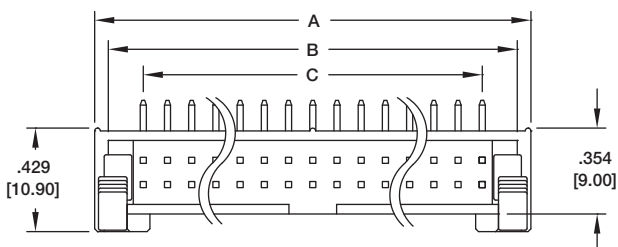


**BHR-34-VUA-ML**

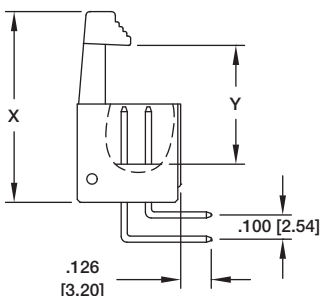
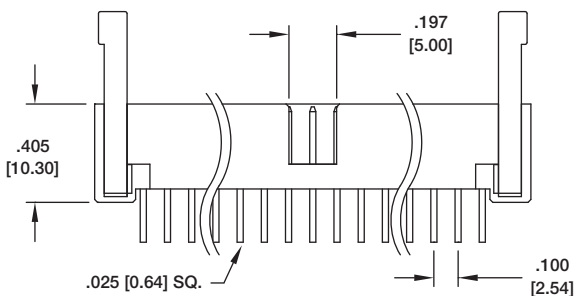


$$\begin{aligned} &= .100 [2.54] \times \text{No. of Positions} / 2 + .301 [7.66] \\ &= .100 [2.54] \times \text{No. of Positions} / 2 + .189 [4.80] \\ &= .100 [2.54] \times \text{No. of Positions} / 2 - 1 \end{aligned}$$

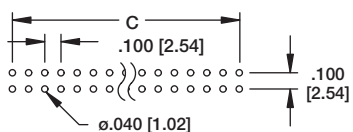
### BHR RIGHT ANGLE MOUNT BOX HEADER WITH LATCHES



**BHR-34-HUA-ML**



$$\begin{aligned} A &= .100 [2.54] \times \text{No. of Positions} / 2 + .301 [7.66] \\ B &= .100 [2.54] \times \text{No. of Positions} / 2 + .189 [4.80] \\ C &= .100 [2.54] \times \text{No. of Positions} / 2 - 1 \end{aligned}$$



**Recommended PCB Layout**

LATCH TYPE	DIMENSIONS	
	X	Y
LONG LATCH (-ML)	1.035 [26.30]	.575 [14.60]
SHORT LATCH (-MS)	.901 [22.90]	.417 [10.60]

### INTRODUCTION:

Adam Tech BHRE Series Elevated Box Headers provide all of the advantages of our standard Box Headers such as our Low Profile design, snug fit & polarized mating but have additional plastic insulators in place to stabilize rows of pins for stacking applications. This series is available in Straight, Right Angle & SMT mounting with standard or customer specified Stacking Heights and PCB tail lengths.

### FEATURES:

Elevated for Stacking applications  
Low Profile design  
Straight, Right Angle & SMT mounting options  
Standard or customer specified Stacking Heights & PCB tail lengths

### MATING SOCKETS:

Adam Tech .100" X .100" dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black (Gray optional)  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 cycles min.

#### Temperature Rating:

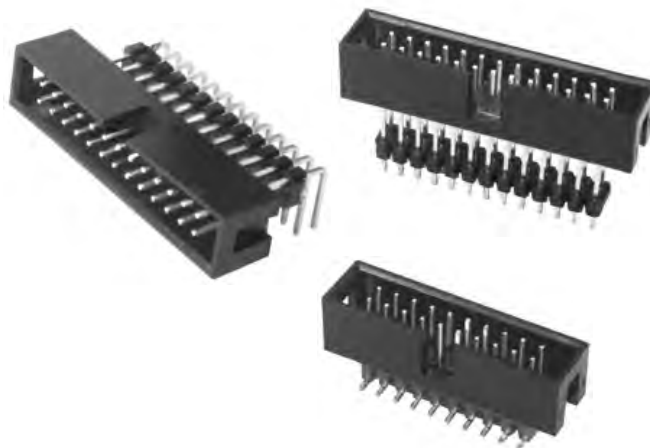
Operating temperature: -40°C to +105°C

#### PACKAGING:

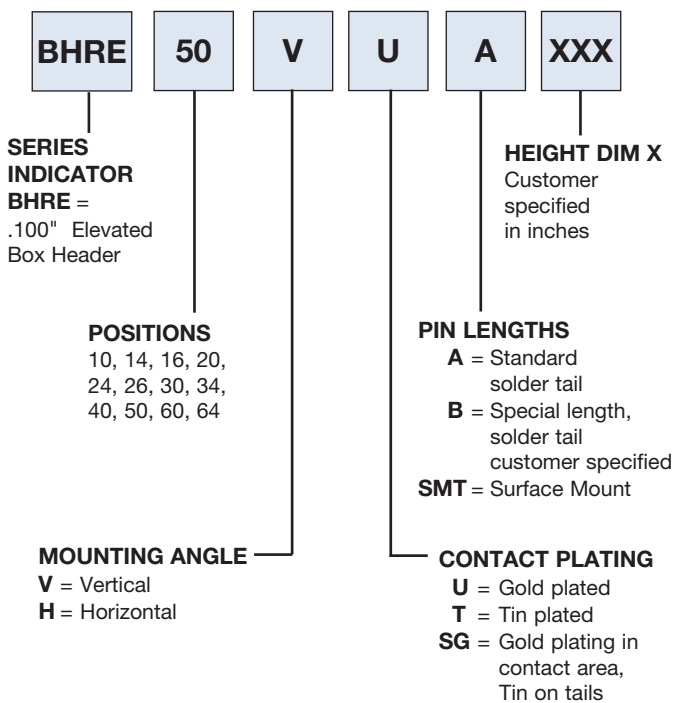
Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION



#### OPTIONS:

Add designator(s) to end of part number

**30** = 30u" Gold on contact area

**GY** = Gray color insulator

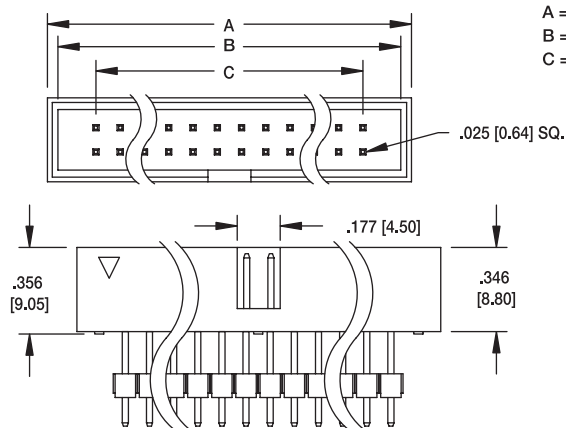
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only.)

All SMT products are manufactured with Hi-Temp insulators)



### BHRE

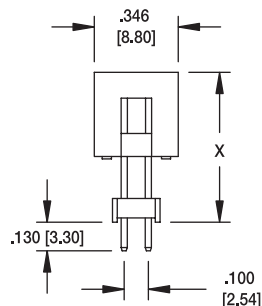
#### ELEVATED STRAIGHT PCB MOUNT



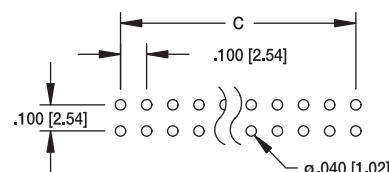
$$A = .100 [2.54] \times \text{No. of Positions} / 2 + .300 [7.62]$$

$$B = .100 [2.54] \times \text{No. of Positions} / 2 + .200 [5.08]$$

$$C = .100 [2.54] \times \text{No. of Spaces}$$

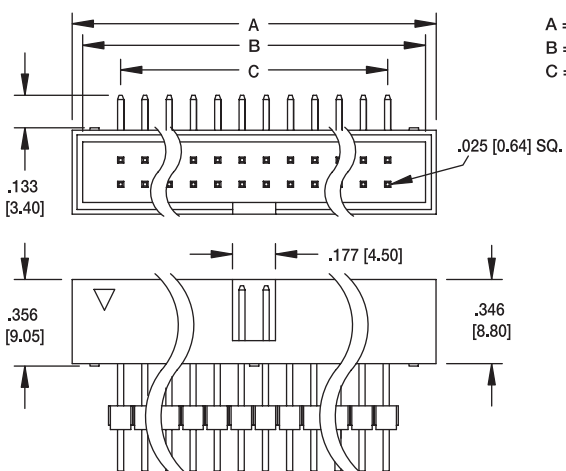


**BHRE-26-VUA-.477**



### BHRE

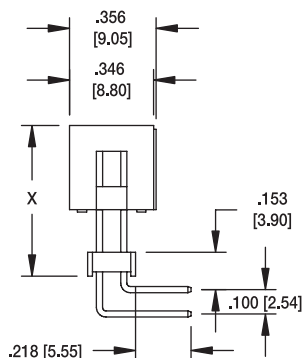
#### ELEVATED RIGHT ANGLE PCB MOUNT



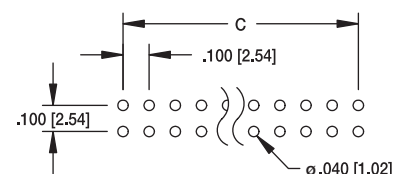
$$A = .100 [2.54] \times \text{No. of Positions} / 2 + .300 [7.62]$$

$$B = .100 [2.54] \times \text{No. of Positions} / 2 + .200 [5.08]$$

$$C = .100 [2.54] \times \text{No. of Spaces}$$

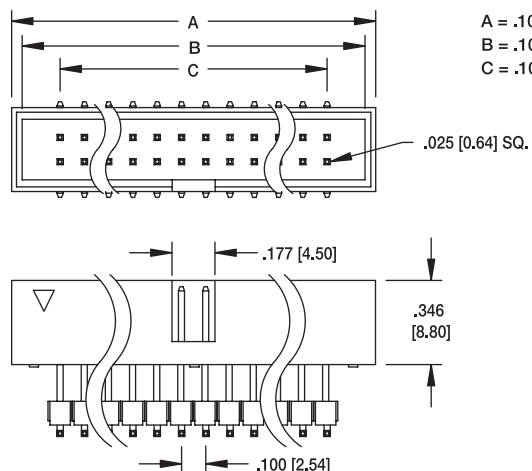


**BHRE-26-HUA-.477**



### BHRE

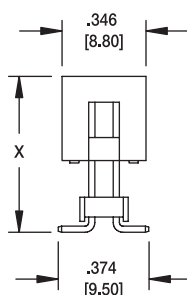
#### ELEVATED SMT



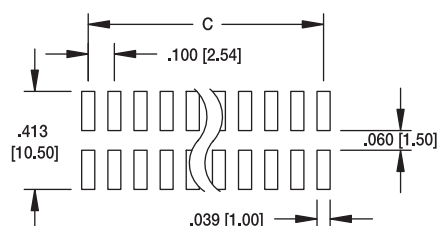
$$A = .100 [2.54] \times \text{No. of Positions} / 2 + .300 [7.62]$$

$$B = .100 [2.54] \times \text{No. of Positions} / 2 + .200 [5.08]$$

$$C = .100 [2.54] \times \text{No. of Spaces}$$



**BHRE-20-VU-SMT-.477**





### INTRODUCTION:

Adam Tech MHR Series .100" pitch Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

### FEATURES:

Integral Latches provide Shock and Vibration Proof connection  
Slot for IDC socket Polarization bump  
Straight PCB, Right Angle PCB and SMT versions  
Gold, Tin or Selective Gold plating  
Elevated option available  
Hi-Temp insulator available

### MATING SOCKETS:

.100" X .100" Dual row IDC sockets

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Insulator Color: Black (Gray optional)  
Contacts: Brass

#### Plating:

U = Gold over nickel underplate overall  
SG = Gold over nickel on contact area,  
Tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 3 Amps max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 Cycles min.

#### Temperature Rating:

Operating temperature: -40°C to +105°C

#### PACKAGING:

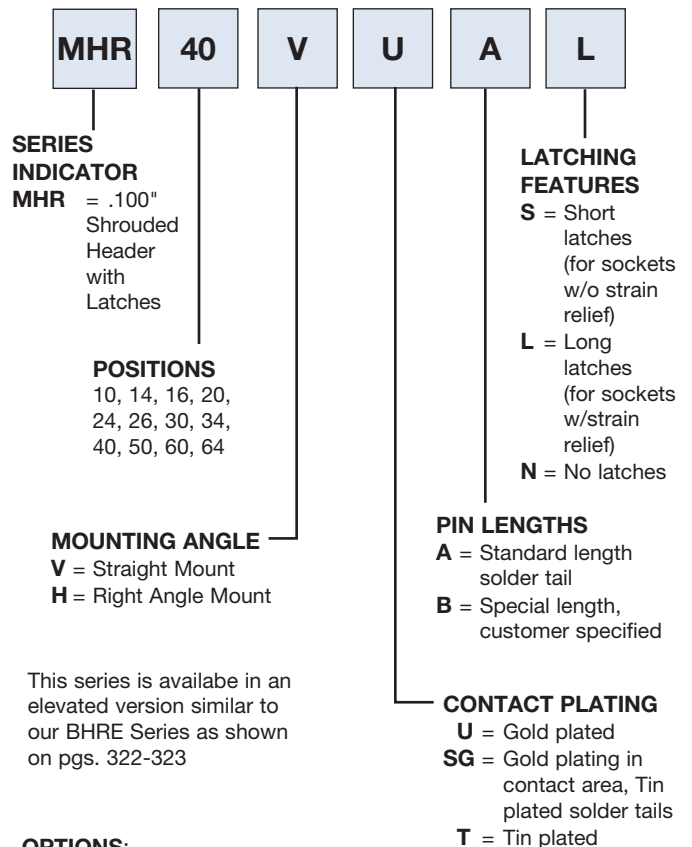
Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION



This series is available in an elevated version similar to our BHRE Series as shown on pgs. 322-323

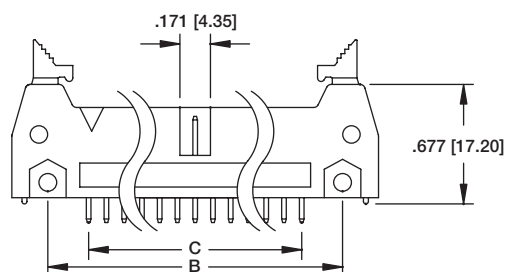
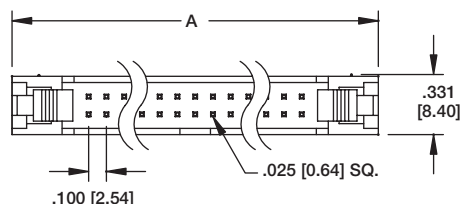
#### OPTIONS:

Add designator(s) to end of part number

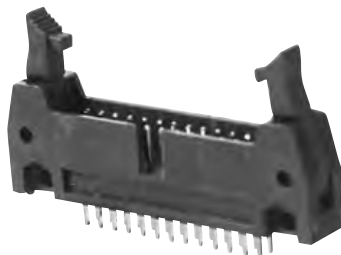
GY = Gray color insulator

HT = High-temp insulator for high-temp soldering processes

A = .100 [2.54] x No. of Spaces + .860 [21.84]  
B = .100 [2.54] x No. of Spaces + .460 [11.68]  
C = .100 [2.54] x No. of Spaces

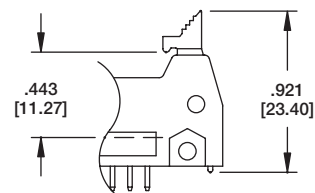


### MHR STRAIGHT PCB MOUNT

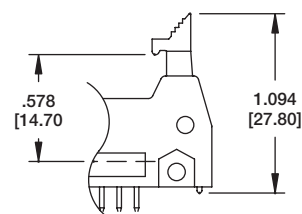


MHR-26-VUAL

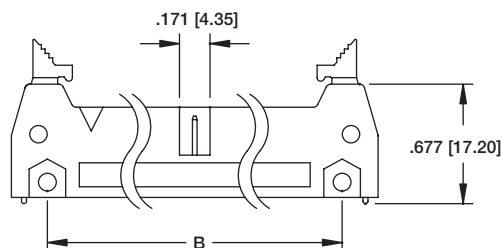
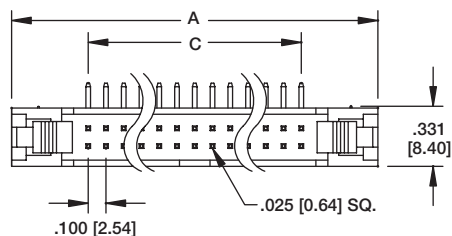
### Latch Options



Header with Short Ejector/Latch for Sockets without Strain Reliefs



Header with Long Ejector/Latch for Sockets with Strain Reliefs

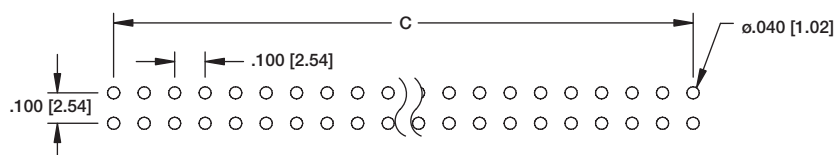


A = .100 [2.54] x No. of Spaces + .860 [21.84]  
B = .100 [2.54] x No. of Spaces + .460 [11.68]  
C = .100 [2.54] x No. of Spaces

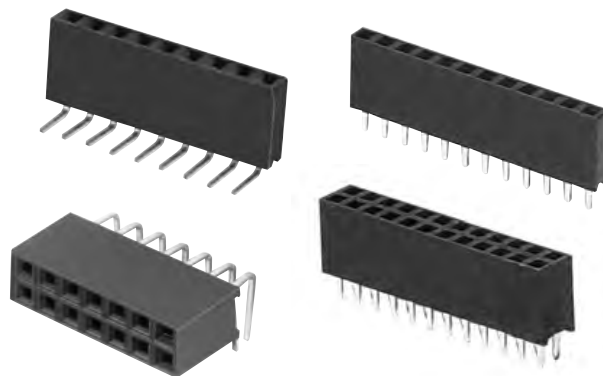


MHR-26-HUAL

### MHR RIGHT ANGLE PCB MOUNT



Recommended PCB Layout



### INTRODUCTION:

Adam Tech RS Series .100" pitch Receptacle Strips are a series of sockets offered in a multitude of sizes and profiles designed to satisfy most .100" pitch socket requirements. Available in Single, Dual and Triple row, they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which uses a wiping mating action and produces a high normal force connection with gold, tin or selective gold plating. All are available with Standard or Hi-Temp Thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape & reel packaging.

### FEATURES:

- Broad range of sizes and profiles
- Contact systems with high normal force
- Choice of contact plating
- SMT pick & place option
- Optional Tape & reel packaging

### MATING CONNECTORS:

Adam Tech PH series .100" pitch pin headers and all industry standard pin headers with a .025" (0.64mm) square pin.

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Contact Plating:

G = Gold over nickel underplate overall  
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 3 Amps max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 0.375 lbs per contact max.  
Withdrawal force: 0.125 lbs per contact min.

#### Temperature Rating:

Operating temperature: -40°C to +105°C

### PACKAGING:

Anti-ESD plastic trays  
(Tape and Reel optional for SMT option)

### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

RS1

12

G

#### SERIES INDICATOR

**RS1** = Single row vertical mount receptacle  
**RS1R** = Single row right angle mount receptacle  
**RS2** = Dual row vertical mount receptacle  
**RS2R** = Dual row right angle mount receptacle  
**RSB** = Dual row straight PCB mount with polarization bump and keyed corner contacts  
**RSBR** = Dual row right angle PCB mount with polarization bump and keyed corner contacts  
**RSE1** = Single row elevated receptacle  
**RSE2** = Dual row elevated receptacle  
**RSM1** = Single row surface mount  
**RSM2** = Dual row surface mount

#### PLATING

**G** = Gold plated  
**T** = Tin plated  
**SG** = Gold plating in contact area, Tin Plated solder tails

#### POSITIONS

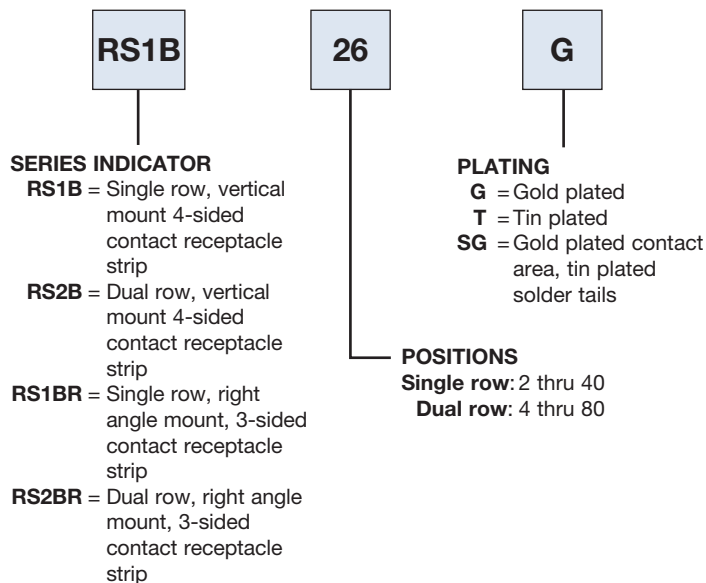
Single row: 1 thru 40  
Dual row: 2 thru 80

### OPTIONS:

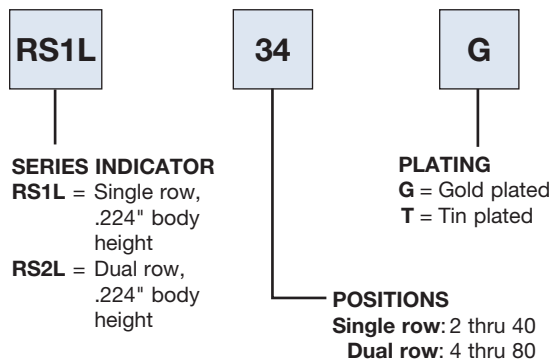
Add designator(s) to end of part number

**SMT** = SMT Dual row with Hi-Temp insulator  
**SMT-A** = SMT Single Row Type A with Hi-Temp insulator  
**SMT-B** = SMT Single Row Type B with Hi-Temp insulator  
**30** = 30 μin gold plating in contact area  
**P** = Optional guide peg on SMT version  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

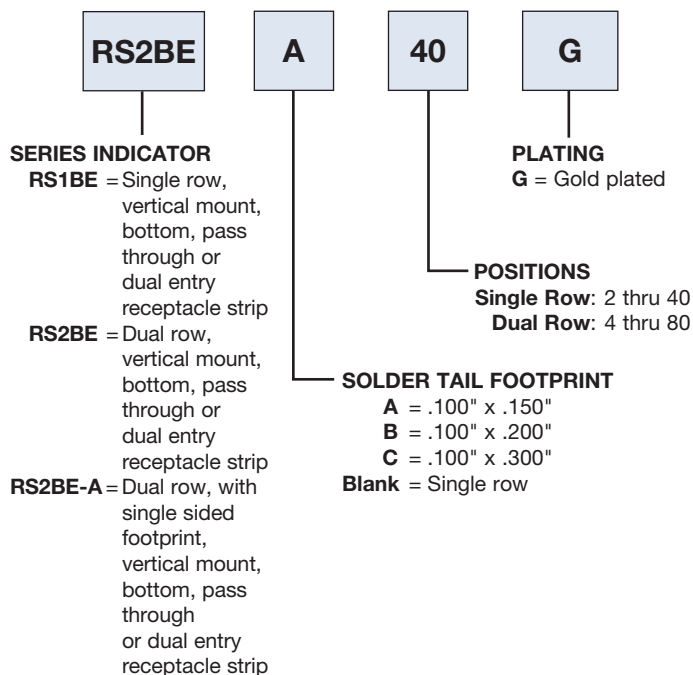
#### RECEPTACLE STRIPS FOUR SIDED CONTACT PAGE 293, 294 & 298



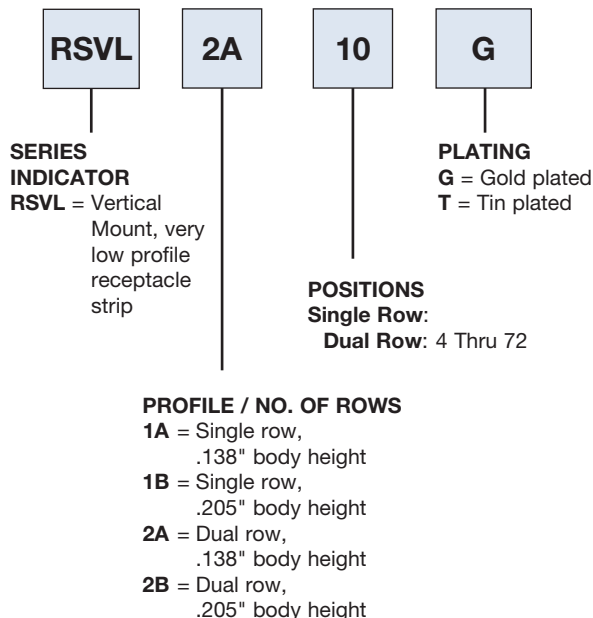
#### RECEPTACLE STRIPS LOW PROFILE PAGE 297



#### RECEPTACLE STRIPS BOTTOM, PASS THROUGH OR DUAL ENTRY



#### RECEPTACLE STRIPS VERY LOW PROFILE PAGE 292



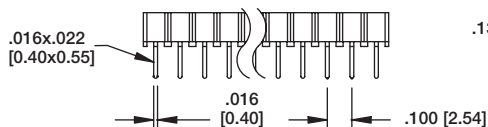
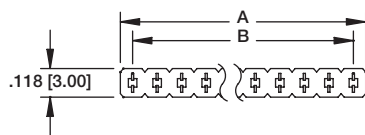
#### OPTIONS:

Add designator(s) to end of part number

**A** = Type A PCB Layout

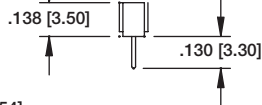
**B** = Type B PCB Layout

Ordering Information pg. 291



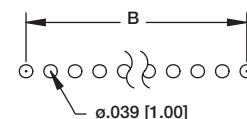
A = .100 [2.54] X No. of Positions

B = .100 [2.54] X No. of Spaces

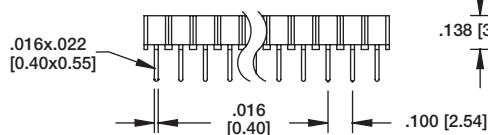
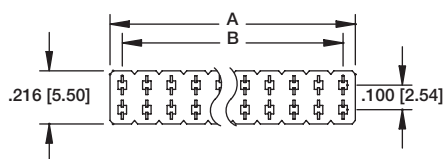


**RSVL-1A**

**RSVL-1A-18-G**

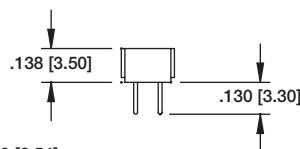


**Recommended PCB Layout**



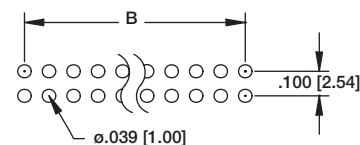
A = .100 [2.54] X No. of Positions Per Row

B = .100 [2.54] X No. of Spaces

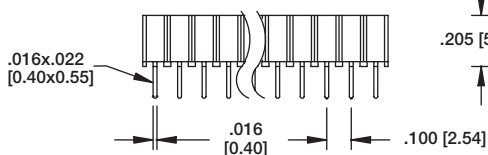
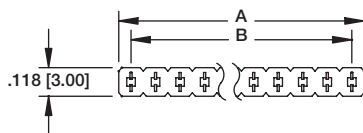


**RSVL-2A**

**RSVL-2A-36-G**

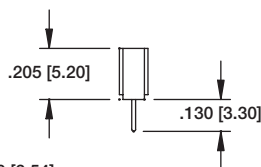


**Recommended PCB Layout**



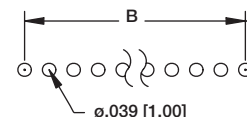
A = .100 [2.54] X No. of Positions

B = .100 [2.54] X No. of Spaces

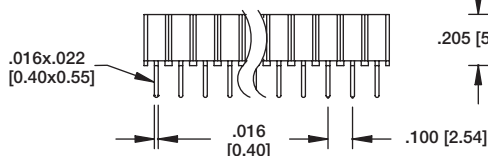
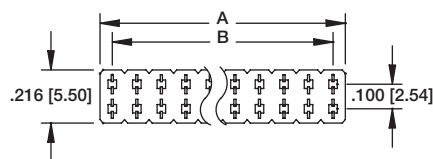


**RSVL-1B**

**RSVL-1B-18-G**

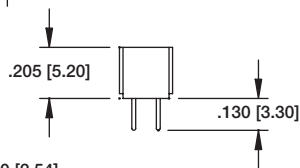


**Recommended PCB Layout**



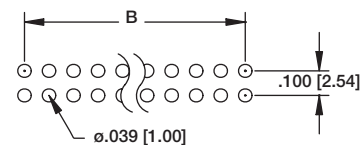
A = .100 [2.54] X No. of Positions Per Row

B = .100 [2.54] X No. of Spaces



**RSVL-2B**

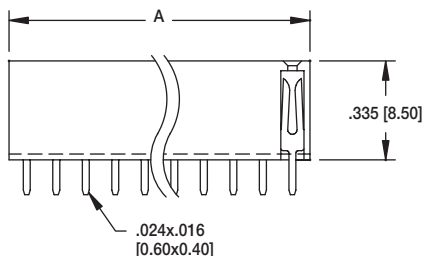
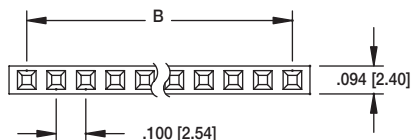
**RSVL-2B-36-G**



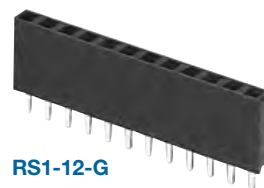
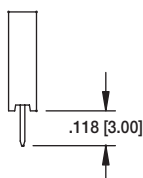
**Recommended PCB Layout**

Ordering Information pg. 290

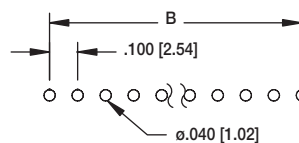
RS1



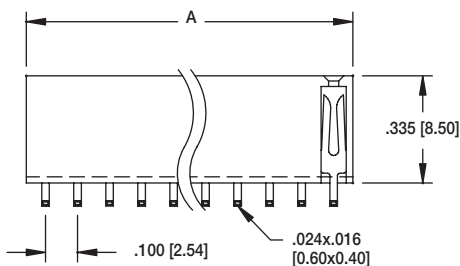
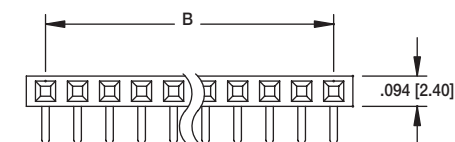
A = .100 [2.54] X No. of Positions +.020 [0.50]  
B = .100 [2.54] X No. of Spaces



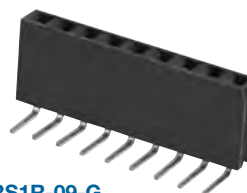
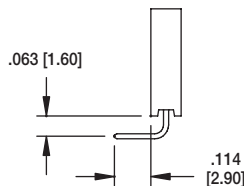
RS1-12-G



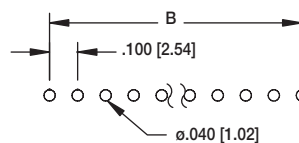
Recommended PCB Layout



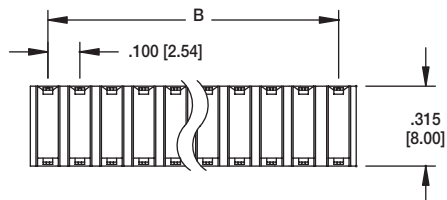
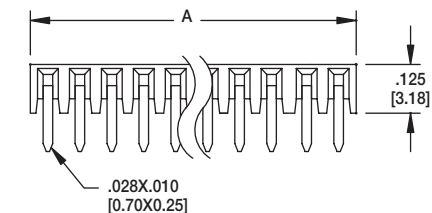
A = .100 [2.54] X No. of Positions +.020 [0.50]  
B = .100 [2.54] X No. of Spaces



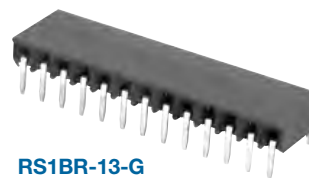
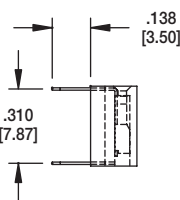
RS1R-09-G



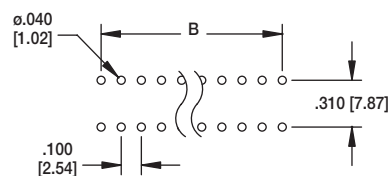
Recommended PCB Layout



A = .100 [2.54] X No. of Positions  
B = .100 [2.54] X No. of Spaces



RS1BR-13-G

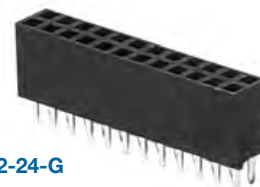
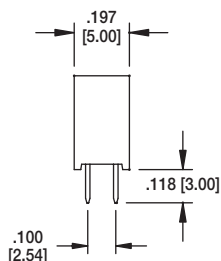
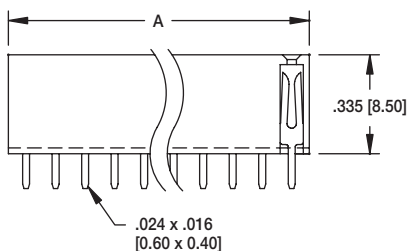
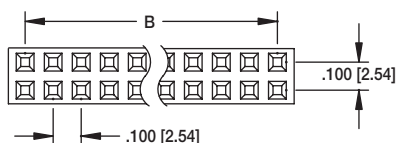


Recommended PCB Layout

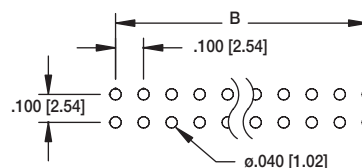


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RS2



RS2-24-G

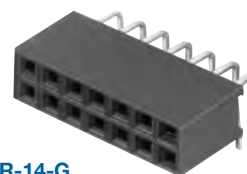
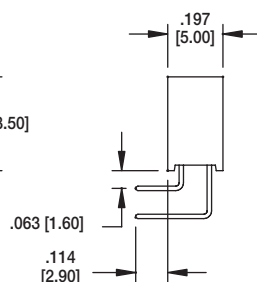
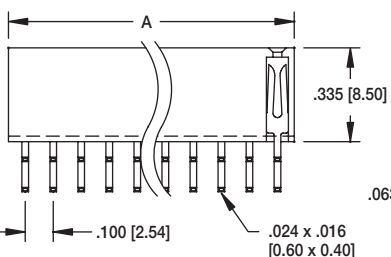
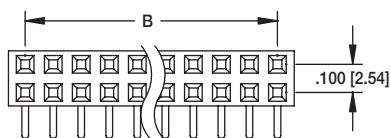


Recommended PCB Layout

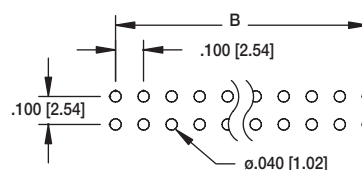
A = .100 [2.54] x No. of Positions per row +.020 [0.50]

B = .100 [2.54] x No. of Spaces

RS2R



RS2R-14-G

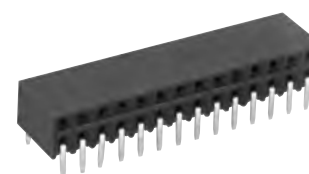
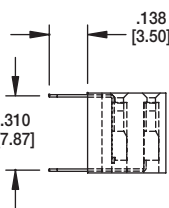
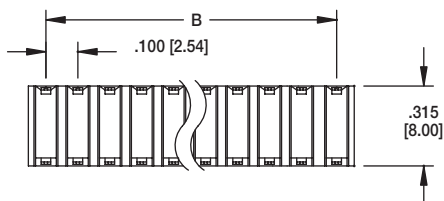
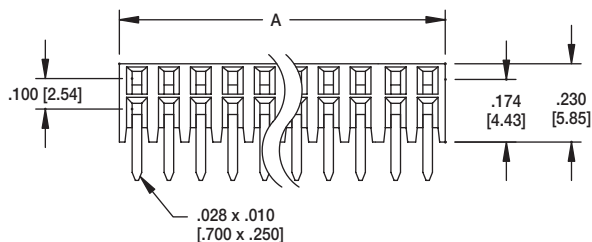


Recommended PCB Layout

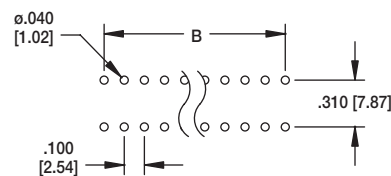
A = .100 [2.54] x No. of Positions per row +.020 [0.50]

B = .100 [2.54] x No. of Spaces

RS2BR



RS2BR-28-G



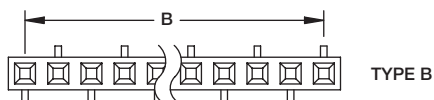
Recommended PCB Layout

A = .100 [2.54] x No. of Positions per row

B = .100 [2.54] x No. of Spaces

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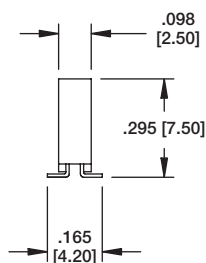
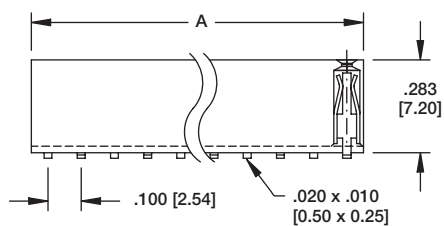
RSM1



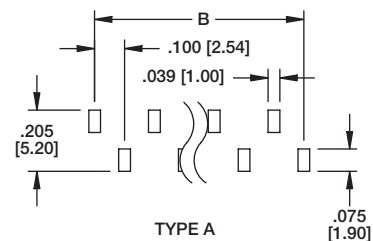
TYPE B



TYPE A

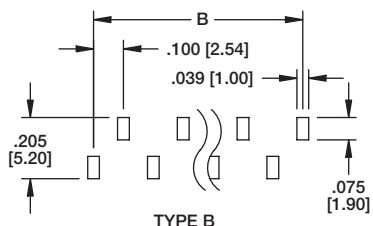


RSM1-10-SG-SMT-A



TYPE A

Recommended PCB Layout

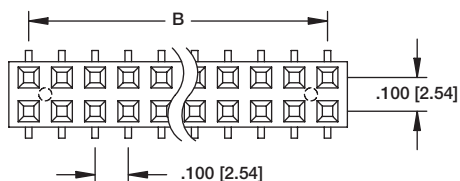


TYPE B

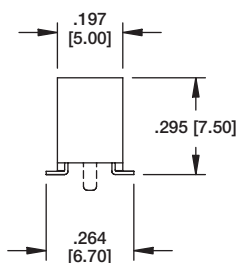
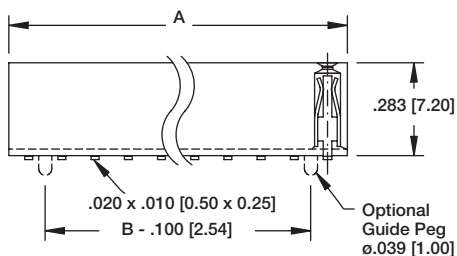
Recommended PCB Layout

A = .100 [2.54] x No. of Positions  
B = .100 [2.54] x No. of Spaces

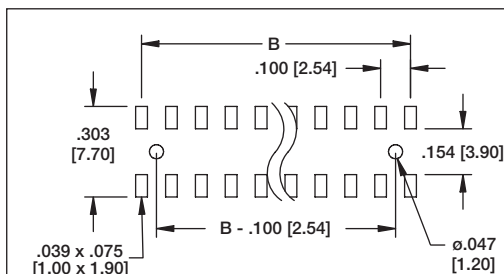
RSM2



RSM2-20-SG-SMT



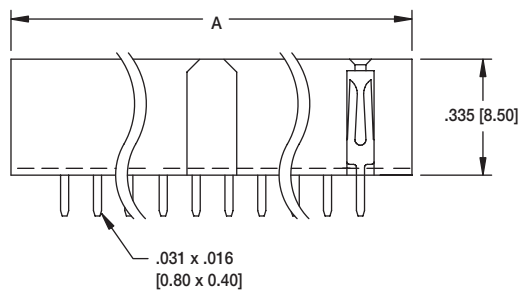
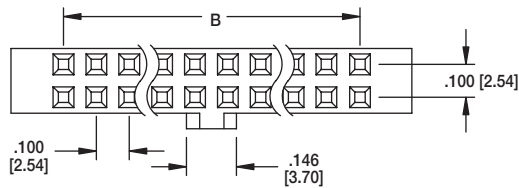
A = .100 [2.54] x No. of Positions per row  
B = .100 [2.54] x No. of Spaces



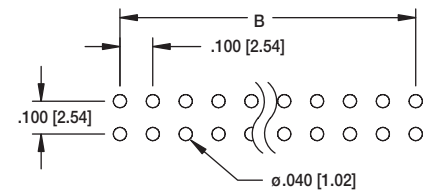
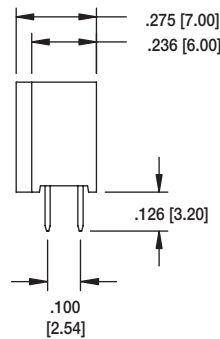
Recommended PCB Layout

Ordering Information pg. 290

RSB



RSB-36-G

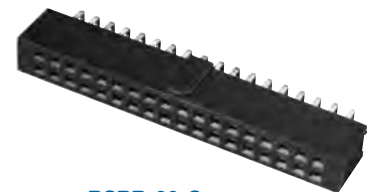
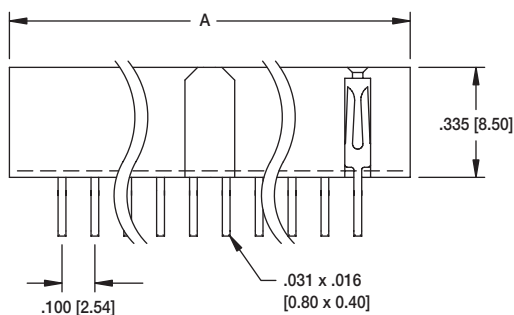
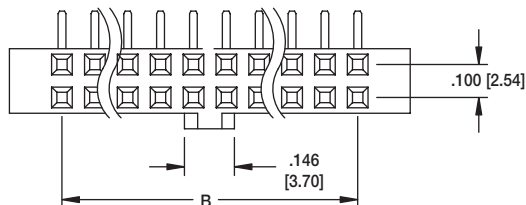


Recommended PCB Layout

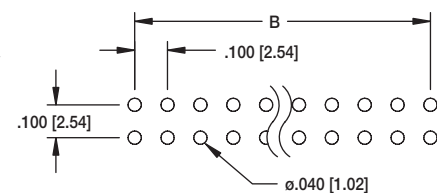
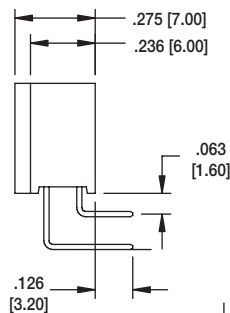
A = .100 [2.54] X No. of Positions + .300 [7.62]

B = .100 [2.54] X No. of Spaces

RSBR



RSBR-36-G



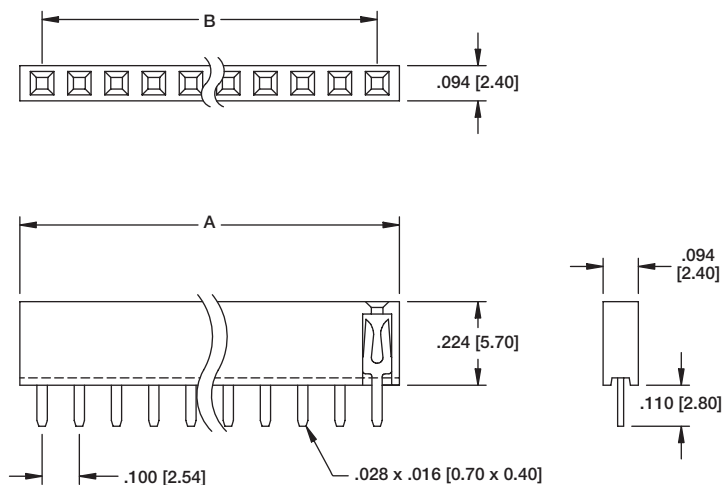
Recommended PCB Layout

A = .100 [2.54] x No. of Positions + .300 [7.62]

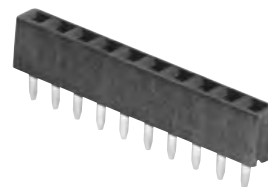
B = .100 [2.54] x No. of Spaces

Ordering Information pg. 291

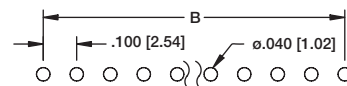
RS1L



A = .100 [2.54] x No. of Positions  
B = .100 [2.54] x No. of Spaces

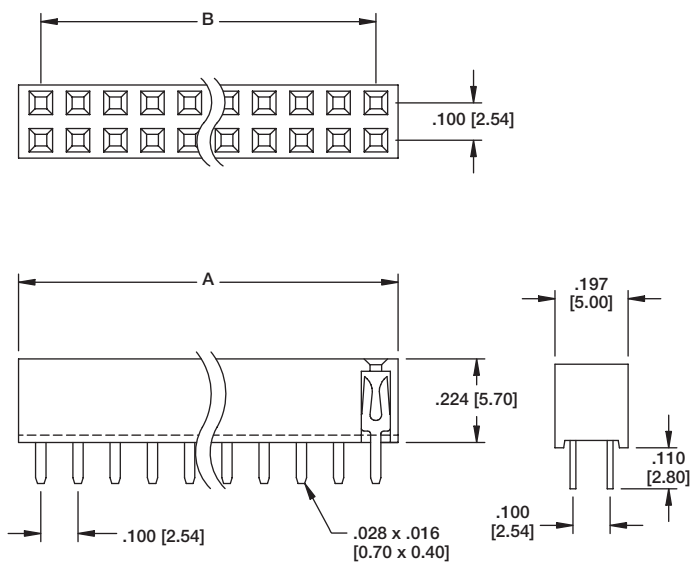


RS1L-10-G

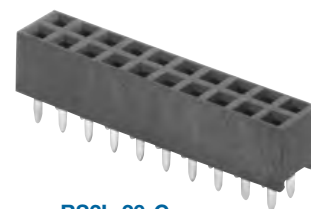


Recommended PCB Layout

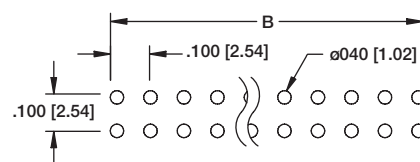
RS2L



A = .100 [2.54] x No. of Positions per row  
B = .100 [2.54] x No. of Spaces



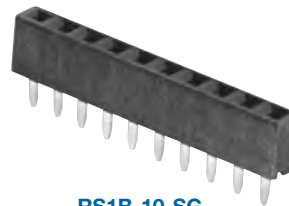
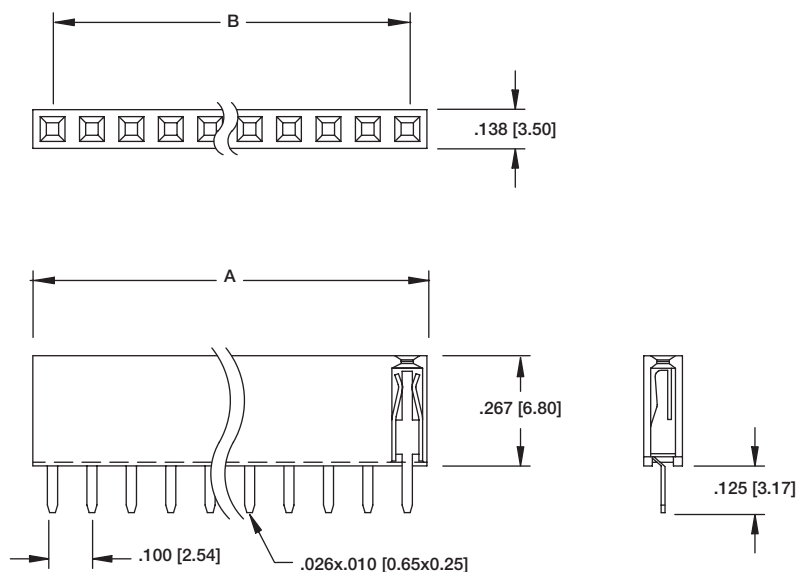
RS2L-20-G



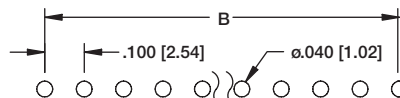
Recommended PCB Layout

Ordering Information pg. 291

RS1B



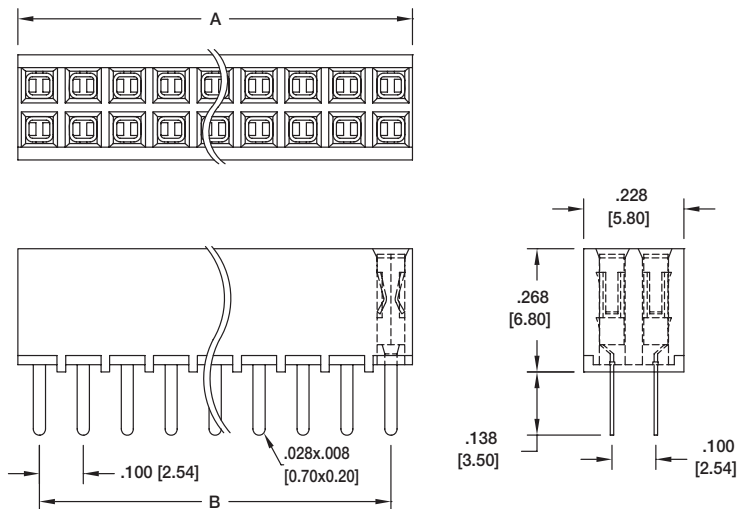
RS1B-10-SG



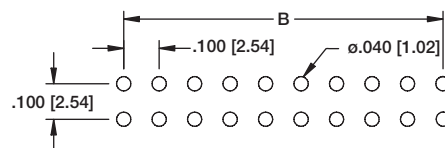
Recommended PCB Layout

A =  $.100$  [2.54] X No. of Positions  
B =  $.100$  [2.54] X No. of Spaces

RS2B



RS2B-20-SG

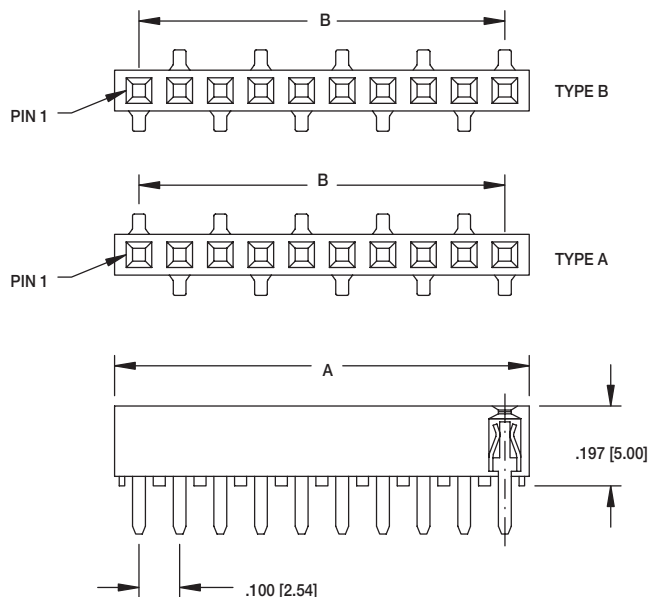


Recommended PCB Layout

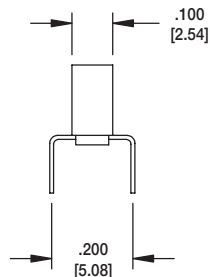
A =  $.100$  [2.54] X No. of Positions per row  
B =  $.100$  [2.54] X No. of Spaces

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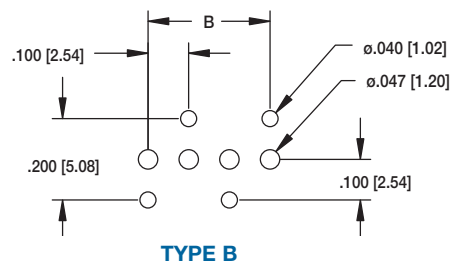
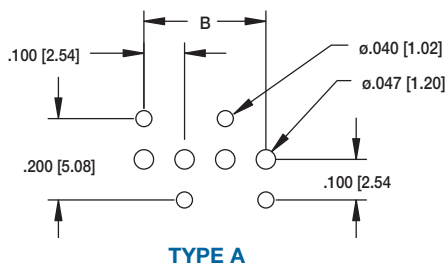
RS1BE-A/B



RS1BE-B-10-SG-A

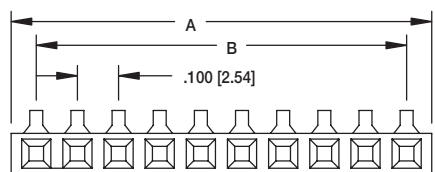


A = .100 [2.54] X No. of Positions  
B = .100 [2.54] X No. of Spaces



Recommended PCB Layouts

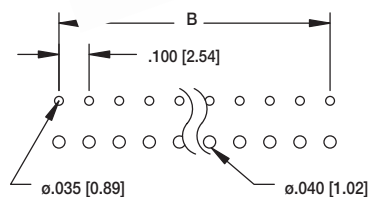
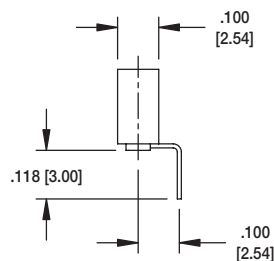
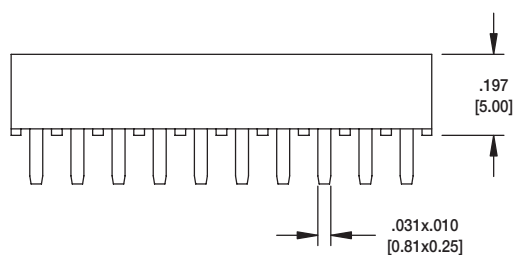
RS1BE



A = .100 [2.54] X No. of Positions  
B = .100 [2.54] X No. of Spaces



RS1BE-10-SG

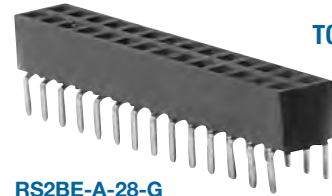


Recommended PCB Layout

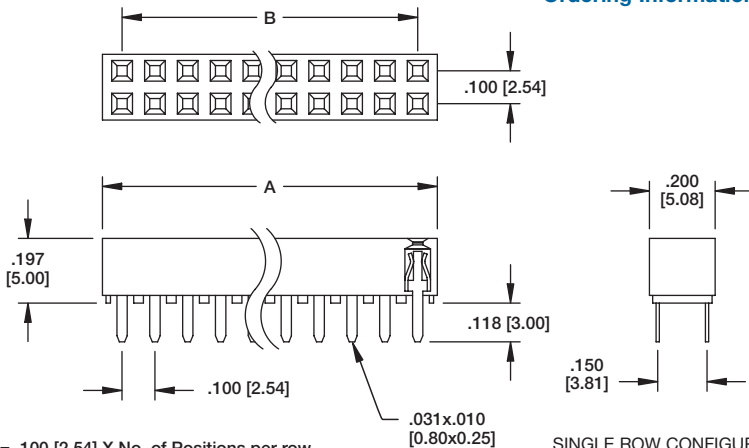


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**RS2BE-A  
TOP ENTRY**

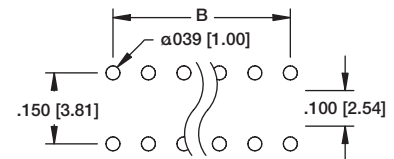


**RS2BE-A-28-G**



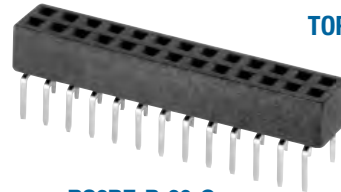
A = .100 [2.54] X No. of Positions per row  
B = .100 [2.54] X No. of Spaces

SINGLE ROW CONFIGURATION  
ALSO AVAILABLE

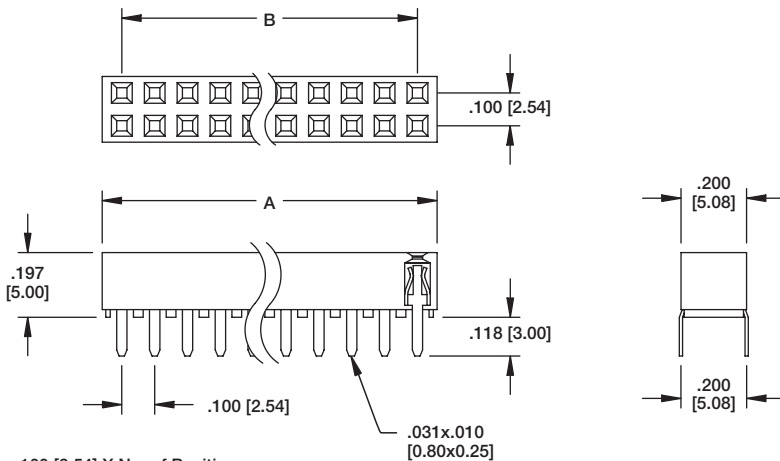


**Recommended PCB Layout**

**RS2BE-B  
TOP OR BOTTOM  
ENTRY**

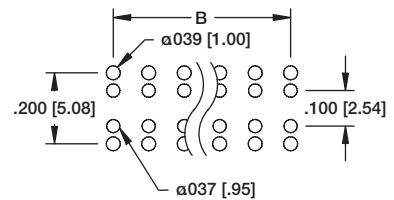


**RS2BE-B-26-G**



A = .100 [2.54] X No. of Positions per row  
B = .100 [2.54] X No. of Spaces

SINGLE ROW CONFIGURATION  
ALSO AVAILABLE

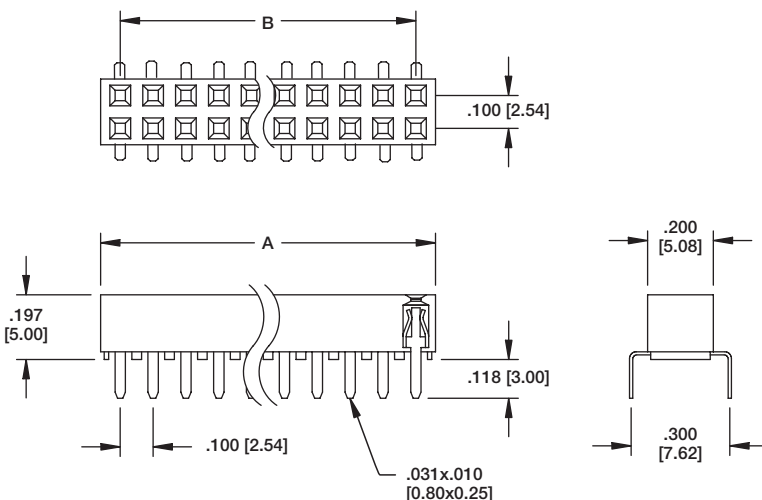


**Recommended PCB Layout**

**RS2BE-C  
TOP OR  
BOTTOM ENTRY**

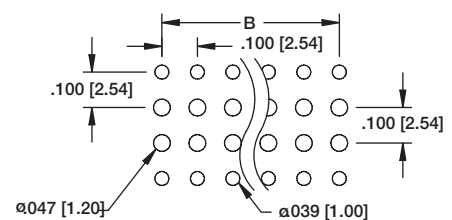


**RS2BE-C-30-G**

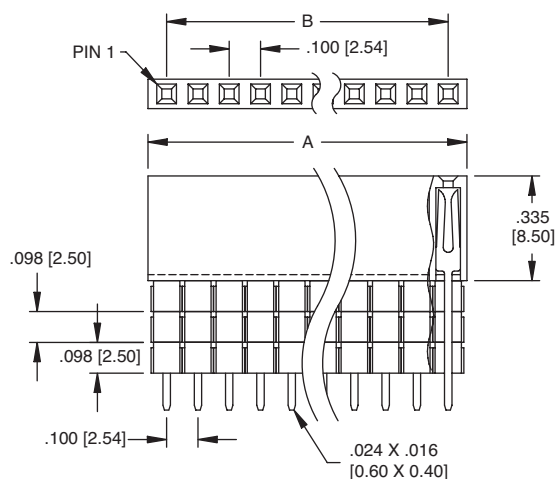


A = .100 [2.54] X No. of Positions per row  
B = .100 [2.54] X No. of Spaces

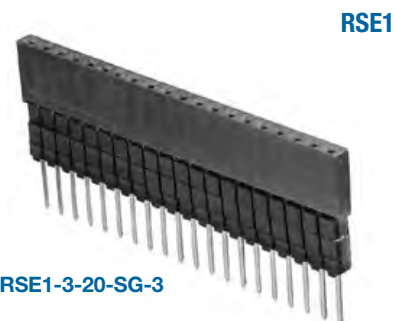
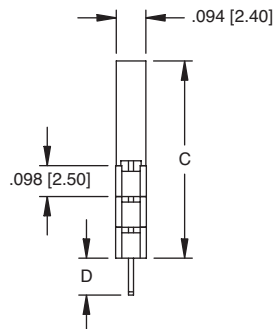
SINGLE ROW CONFIGURATION  
ALSO AVAILABLE



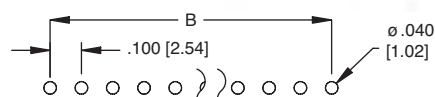
**Recommended PCB Layout**



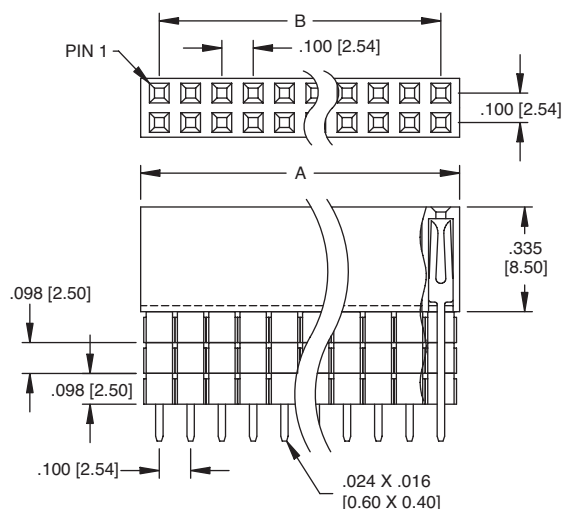
A = .100" [2.54] x No. of positions  
B = .100" [2.54] x No. of spaces



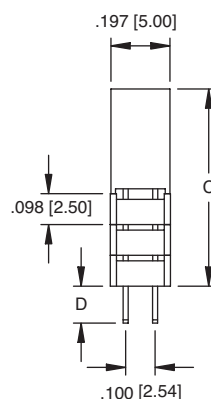
RSE1-3-20-SG-3



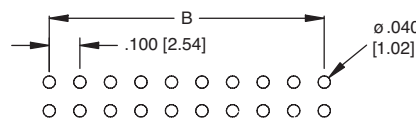
Recommended PCB Layout



A = .100" [2.54] x No. of positions per row  
B = .100" [2.54] x No. of spaces

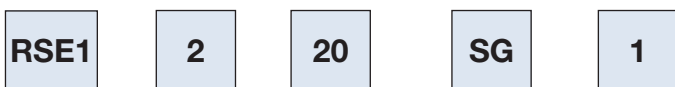


RSE2-3-40-SG-3



Recommended PCB Layout

## ORDERING INFORMATION



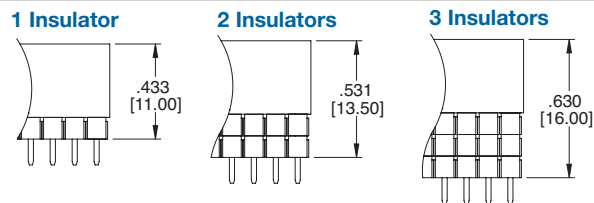
**SERIES INDICATOR**  
RSE1 = Single row, vertical elevated socket strip  
RSE2 = Dual row, vertical elevated socket strip

**POSITIONS**  
Single Row  
01 thru 40  
Dual Row  
02 thru 80

**HEIGHT**  
1 = .433 [11.00]  
2 = .531 [13.50]  
3 = .630 [16.00]

**PLATING**  
SG = Selective Gold  
Plating in contact area, Tin Plated tails  
T = Tin Plated

**PIN LENGTH**  
Dim. D  
See chart Dim.D



PART NUMBER	INSULATORS	DIM. C	DIM. D
RSEX-1-XX-SG-1	1	.433 [11.00]	.118 [3.00]
RSEX-1-XX-SG-2	1	.433 [11.00]	.315 [8.00]
RSEX-1-XX-SG-3	1	.433 [11.00]	.448 [11.40]
RSEX-2-XX-SG-1	2	.531 [13.50]	.216 [5.50]
RSEX-3-XX-SG-1	3	.635 [16.12]	.118 [3.00]
RSEX-3-XX-SG-2	3	.635 [16.12]	.252 [6.40]

\*Replace "X" with "1" for single row or "2" for double row.  
\*Replace "XX" with total number of positions.