

### 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:

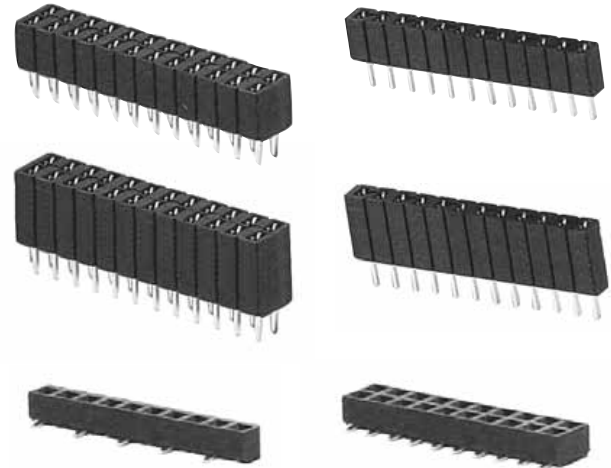
Operating temperature: -40°C to +105°C

#### PACKAGING:

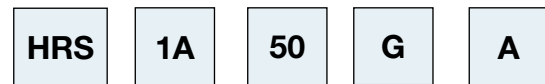
Anti-ESD trays or tubes  
 (Tape and Reel optional for SMT option)

#### SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, 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

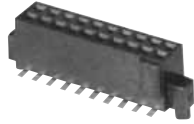
**NO. OF POSITIONS**  
 Single Row: 02 thru 40  
 Dual Row: 04 thru 80

#### OPTIONS:

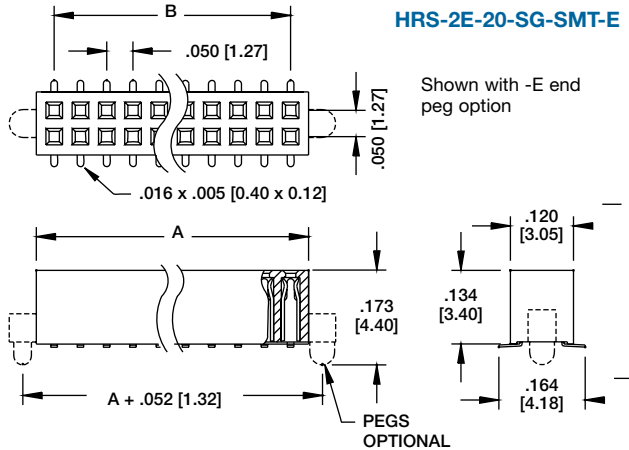
Add designator(s) to end of part number  
**30** = 30 μin gold plating in contact area  
**P** = Guide Pegs  
**E** = End Pegs  
**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only).  
 All SMT products are manufactured with Hi-Temp insulators

<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

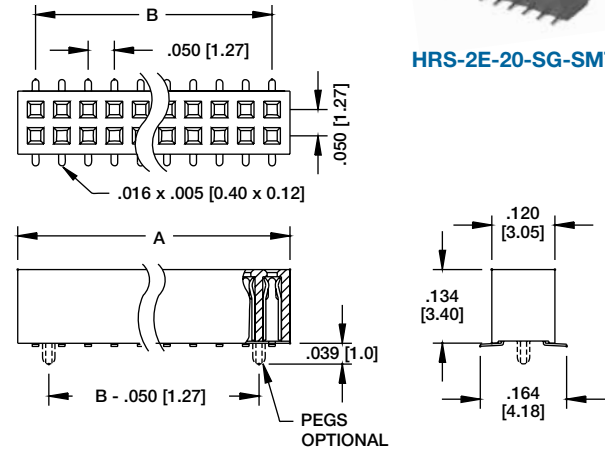
$A = .050$  [1.27] X No. of Positions per row +  $.018$  [0.46]  
 $B = .050$  [1.27] X No. of Spaces

### HRS-2E SMT

Ordering Information pg. 276



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



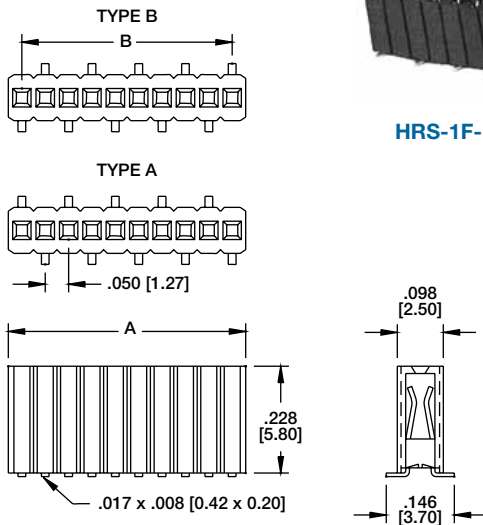
#### Recommended PCB Layout

$A = .050$  [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**

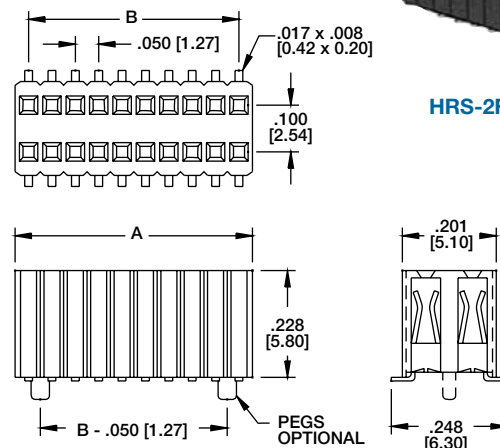


$A = .050$  [1.27] X No. of Positions +  $.008$  [0.20]  
 $B = .050$  [1.27] X No. of Spaces

### 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

<p><b>HRS-1C</b> SINGLE ROW</p> <p><b>HRS-1C-13-GA</b></p> <p>A = .050 [1.27] X No. of Pos. + .018 [0.46] B = .050 [1.27] X No. of Spaces</p>	<p><b>HRS-2C</b> DUAL ROW</p> <p>Ordering Information pg. 294</p> <p><b>HRS-2C-26-GA</b></p> <p>A = .050 [1.27] X No. of Pos. + .018 [0.46] B = .050 [1.27] X No. of Spaces</p>
<p><b>HRS-2C-SMT</b> DUAL ROW WITH END PEGS</p> <p><b>HRS-2C-20-SG-SMT-E</b></p> <p>A = .050 [1.27] X No. of Pos. + .018 [0.46] B = .050 [1.27] X No. of Spaces</p> <p>PEGS OPTIONAL</p>	<p><b>HRS-2C-SMT</b> DUAL ROW WITH UNDERSIDE PEGS</p> <p><b>HRS-2C-20-SG-SMT</b></p> <p>A = .050 [1.27] X No. of Pos. + .018 [0.46] B = .050 [1.27] X No. of Spaces</p> <p>Pegs Optional</p>
<p><b>HRS-2E</b> DUAL ROW</p> <p><b>HRS-2E-20-GA</b></p> <p>A = .050 [1.27] X No. of Pos. + .018 [0.46] B = .050 [1.27] X No. of Spaces</p>	<p><b>HRS-1C</b> PCB LAYOUT</p> <p><b>HRS-2C &amp; 2E</b> PCB LAYOUT</p> <p><b>HRS-2C SMT</b> PCB LAYOUT</p> <p>B - .050 [1.27] BOTTOM PEG OPTION A + .052 [1.32] END PEG OPTION</p>