



(2.54 mm) .100"



TSW-209-09-F-S-RA

# THROUGH-HOLE .025" SQ POST HEADER

## Mates with:

SSW, SSQ, SSM, ESW, ESQ,  
BCS, BSW, CES, SLW, IDSD,  
IDSS, SMSD, SMSS

## SPECIFICATIONS

For complete specifications  
see [www.samtec.com?TSW](http://www.samtec.com?TSW)  
or [www.samtec.com?HTSW](http://www.samtec.com?HTSW)

### Insulator Material:

TSW: Black Glass Filled Polyester  
HTSW: Natural Liquid  
Crystal Polymer

### Terminal Material:

Phosphor Bronze

### Plating:

Au or Sn over 50µ" (1.27 µm) Ni

### Operating Temp Range:

-55°C to +125°C with Gold

-55°C to +105°C with Tin

### Voltage Rating:

550 VAC mated with SSW;

500 VAC mated with

BCS or ESQ;

450 VAC -RA/-RE mated with

BCS or SSM

400 VAC mated with CES

RoHS Compliant: Yes

Lead-Free Solderable:

HTSW: Yes

TSW: Wave Only

## CURRENT RATING (PER PIN)

### TSW mated with

| ESW   | SSW   | SLW   | SSQ   | SSM   | BCS   | SNT   |
|-------|-------|-------|-------|-------|-------|-------|
| 5.2 A | 5.7 A | 5.2 A | 6.3 A | 5.2 A | 4.6 A | 4.3 A |

1 POSITION POWERED PER ROW

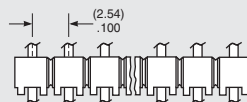
## TYPE STRIP

TSW = Standard  
Strip

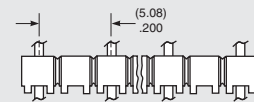
HTSW = Hi-Temp  
Strip

## PIN CENTERS

-1 = .100" (2.54 mm) Centers,  
All Positions Filled

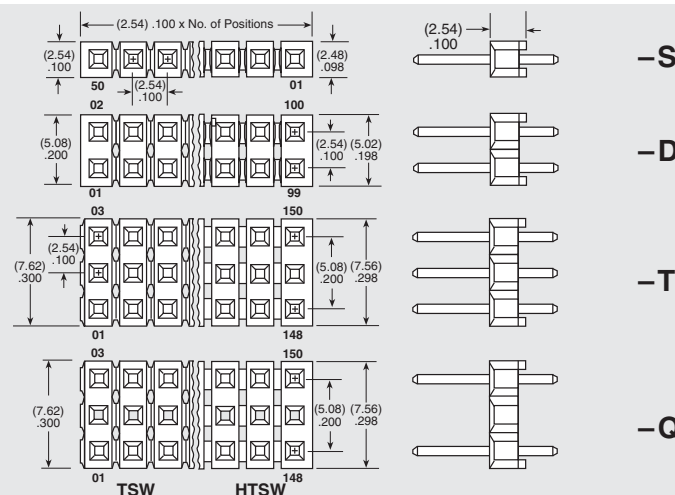


-2 = .200" (5.08 mm) Centers,  
Every Other Position Filled



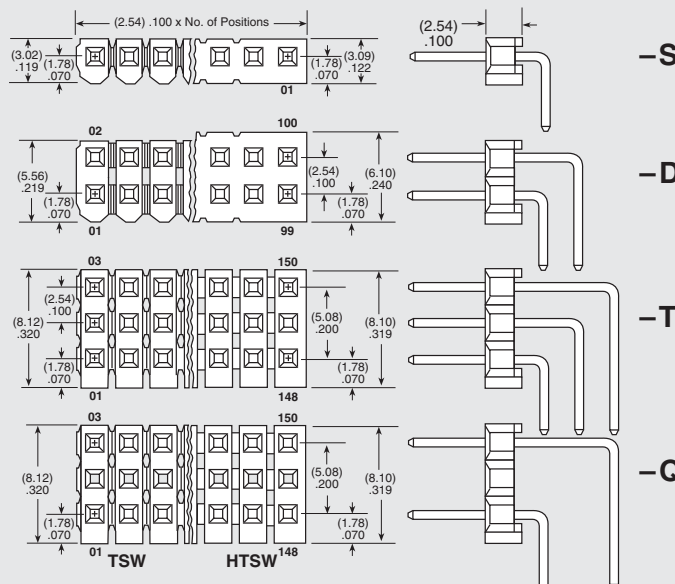
## NO. PINS PER ROW

## Straight Pin Versions



01  
thru  
50  
= .100" (2.54 mm)  
Center Version

## Right Angle Versions



02  
thru  
25  
= .200" (5.08 mm)  
Center Version

## RECOGNITIONS

For complete scope  
of recognitions see  
[www.samtec.com/quality](http://www.samtec.com/quality)



## APPLICATIONS



## ALSO AVAILABLE (MOQ Required)

- Other platings  
Contact Samtec.

**Note:** Some lengths,  
styles and options are  
non-standard, non-returnable.

TSW-109-10-F-D-RA



TSW-112-07-G-T



HTSW-120-13-T-D



TSW-114-16-G-S-RE

## TSW, HTSW SERIES

### LEAD STYLE

### PLATING OPTION

### ROW OPTION

### OTHER OPTIONS

#### -F

= Gold flash on post, Matte Tin on tail

#### -L

= 10μ" (0.25 μm) Gold on post, Matte Tin on tail

#### -G

= 10μ" (0.25 μm) Gold on post, Gold flash on balance

#### -T

= Matte Tin

### OTHER SOLUTIONS

- Elevated Right Angle option
- Shunts
- Contact Samtec

#### -S

= Single Row

#### -D

= Double Row

#### -T

= Triple Row

#### -Q

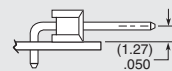
= Double Row  
(5.08 mm)  
.200" row space

#### -RA or -RE

= Right Angle

#### -NA

= Right Angle  
(using straight body for coplanar mating with SSW-RA series)



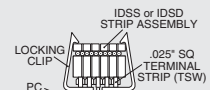
#### -LL

= Locking Lead

Two leads per strip crimped in opposite directions on or near centerline. See charts for available styles. N/A with single row 1 or 2 positions. Recommended hole size (1.02 mm ± 0.03 mm) .040" ± .001"

#### -LC

= Locking Clip  
(Styles -08 thru -13 & -22 only)



Requires 4 pin minimum (NA with -T, -Q, -RA or -RE)

#### -LA

= -RA Option with -LL Option

#### -“XXX”

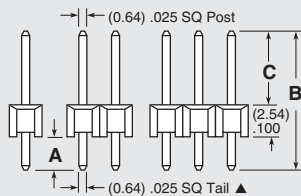
= Polarized Position

## Straight Pin Versions

(Specify “LEAD STYLE” from chart)

| STYLE | A               | B                | C               |
|-------|-----------------|------------------|-----------------|
| * -05 | (3.30)<br>.130  | (8.51)<br>.335   | (2.67)<br>.105  |
| * -06 | (2.41)<br>.095  | (7.62)<br>.300   | (2.67)<br>.105  |
| * -07 | (2.54)<br>.100  | (10.92)<br>.430  |                 |
| * -08 | (5.08)<br>.200  | (13.46)<br>.530  |                 |
| * -09 | (10.16)<br>.400 | (18.54)<br>.730  |                 |
| -10   | (12.70)<br>.500 | (21.08)<br>.830  | (5.84)<br>.230  |
| -11   | (15.24)<br>.600 | (23.62)<br>.930  |                 |
| -12   | (17.78)<br>.700 | (26.16)<br>1.030 |                 |
| -13   | (22.86)<br>.900 | (31.24)<br>1.230 |                 |
| -14   | (2.79)<br>.110  | (13.46)<br>.530  | (8.13)<br>.320  |
| * -15 | (7.87)<br>.310  | (18.54)<br>.730  | (13.21)<br>.520 |
| * -16 | (2.79)<br>.110  | (21.08)<br>.830  | (8.13)<br>.320  |
| * -17 | (2.79)<br>.110  | (21.08)<br>.830  | (15.74)<br>.620 |

\* Available with -LL (Locking Lead) Option



Specify -07 for best mate with IDXX Series IDC Cable

| STYLE | A                | B                | C                |
|-------|------------------|------------------|------------------|
| * -18 |                  | (23.62)<br>.930  | (18.29)<br>.720  |
| * -19 | (2.79)<br>.110   | (26.16)<br>1.030 | (20.83)<br>.820  |
| * -20 |                  | (31.24)<br>1.230 | (25.91)<br>1.020 |
| * -21 |                  | (36.32)<br>1.430 | (30.99)<br>1.220 |
| * -22 | (7.62)<br>.300   | (16.00)<br>.630  | (5.84)<br>.230   |
| * -23 | (2.92)<br>.115   | (11.30)<br>.445  |                  |
| * -24 | (5.33)<br>.210   | (12.15)<br>.480  | (6.73)<br>.265   |
| * -25 | (5.33)<br>.210   | (16.00)<br>.630  | (8.13)<br>.320   |
| * -26 | (3.20)<br>.126   | (11.58)<br>.456  |                  |
| -27   | (25.40)<br>1.000 | (33.78)<br>1.330 | (5.84)<br>.230   |
| -28   | (20.32)<br>.800  | (28.70)<br>1.130 |                  |
| -29   | (23.11)<br>.910  | (33.78)<br>1.330 | (8.13)<br>.320   |
| -30   | (18.03)<br>.710  | (28.70)<br>1.130 |                  |
| + -41 | (0.89)<br>.035   | (9.27)<br>.365   | (5.84)<br>.230   |
| + -42 | (1.27)<br>.050   | (11.94)<br>.470  | (8.13)<br>.320   |

+ Style -41 & -42 available with HTSW only.

▲ Except: Style -26 (0.46) .018 DIA Tail

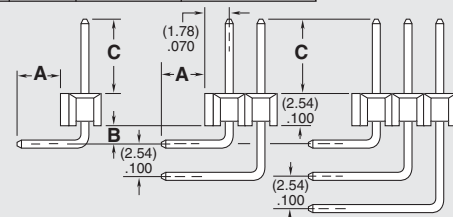
## Right Angle Versions

(Specify “LEAD STYLE” from chart and select -RA or -RE from other options)

| -RA LEAD STYLE | SINGLE (-S)     |                | DOUBLE (-D)     | TRIPLE (-T & -Q) |
|----------------|-----------------|----------------|-----------------|------------------|
|                | A               | C              | A               | A                |
| -08            | (2.29)<br>.090  |                | (2.29)<br>.090  | (2.29)<br>.090   |
| -09            | (7.37)<br>.290  |                | (7.37)<br>.290  | (7.37)<br>.290   |
| -10            | (9.91)<br>.390  | (5.84)<br>.230 | (9.91)<br>.390  | (9.91)<br>.390   |
| -11            | (12.45)<br>.490 |                | (12.45)<br>.490 | (12.45)<br>.490  |
| -12            | (14.99)<br>.590 |                | (14.99)<br>.590 | (14.99)<br>.590  |
| -13            | (20.07)<br>.790 |                | (20.07)<br>.790 | N/A              |
| * -16          | (5.08)<br>.200  | (8.13)<br>.320 | (5.08)<br>.200  | (5.08)<br>.200   |
| * -21          | (25.15)<br>.990 | (5.84)<br>.230 | N/A             | N/A              |
| * -22          | (4.83)<br>.190  |                | (4.83)<br>.190  | (4.83)<br>.190   |
| * -25          | (2.54)<br>.100  | (8.13)<br>.320 | (2.54)<br>.100  | (2.54)<br>.100   |
| -27            | (22.61)<br>.890 | (5.84)<br>.230 | N/A             |                  |
| -28            | (17.53)<br>.690 |                | (17.53)<br>.690 |                  |
| -29            | (20.32)<br>.800 | (8.13)<br>.320 | N/A             | N/A              |
| -30            | (15.24)<br>.600 |                | (15.24)<br>.600 |                  |

| -RE LEAD STYLE | SINGLE A        | C              |
|----------------|-----------------|----------------|
| -09            | (4.83)<br>.190  |                |
| -10            | (7.37)<br>.290  |                |
| -11            | (9.91)<br>.390  | (5.84)<br>.230 |
| -12            | (12.45)<br>.490 |                |
| -13            | (17.53)<br>.690 |                |
| -16            | (2.54)<br>.100  | (8.13)<br>.320 |
| -21            | (22.61)<br>.890 |                |
| -22            | (2.29)<br>.090  | (5.84)<br>.230 |
| -27            | (20.07)<br>.790 |                |
| -28            | (14.99)<br>.590 |                |

\* Available with -LA (Locking Lead) Option



| LEAD STYLE | B              |
|------------|----------------|
| -RA        | (1.52)<br>.060 |
| -RE        | (4.06)<br>.160 |