



(2.54 mm) .100"



TSW-209-09-F-S-RA

# THROUGH-HOLE .025" SQ POST HEADER

## Board Mates:

SSW, SSQ, SSM, ESW, ESQ, BCS, BSW, CES, SLW

## Cable Mates:

IDSD, IDSS

## 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 50 μ" (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: No, Lead 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 |

2 POSITIONS POWERED

## TYPE STRIP

TSW = Standard Strip

HTSW = Hi-Temp Strip

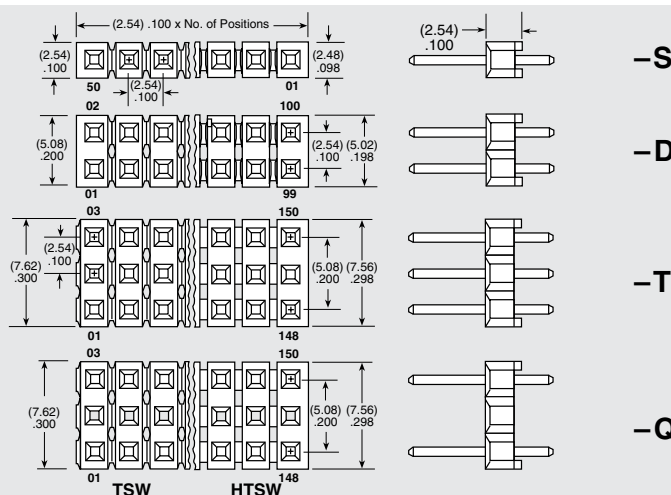
## PIN CENTERS

-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

SSW TSW



HORIZONTAL

## ALSO AVAILABLE (MOQ Required)

- Other platings

## Note:

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

Due to technical progress, all designs, specifications and components are subject to change without notice.

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TSW-109-10-F-D-RA



TSW-112-07-F-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

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

## -G

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

## -T

= Matte Tin

## -S

= Single Row

## -D

= Double Row

## -T

= Triple Row

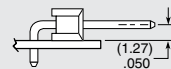
## -Q

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

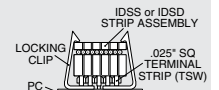
## -RA or -RE

= Right-angle

## -NA

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

## -LC

= Locking Clip  
(Styles -08 thru  
-13 & -22 only)Requires 4 pin minimum  
(NA with -T, -Q, -RA or -RE)

## -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"

## -LA

= -RA Option  
with -LL Option

## -“XXX”

= Polarized Position

## OTHER SOLUTIONS

- Elevated Right-angle option
- Shunts

## 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   | (5.84)<br>.230  |
| * -10 | (12.70)<br>.500 | (21.08)<br>.830   |                 |
| * -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   | (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   | (6.73)<br>.265    |
| * -24 | (5.33)<br>.210    | (12.15)<br>.480   | (8.13)<br>.320    |
| * -25 | (3.20)<br>.126    | (11.58)<br>.456   |                   |
| * -26 | (25.40)<br>.1.000 | (33.78)<br>.1.330 | (5.84)<br>.230    |
| * -27 | (20.32)<br>.800   | (28.70)<br>.1.130 |                   |
| * -28 | (23.11)<br>.910   | (33.78)<br>.1.330 | (8.13)<br>.320    |
| * -29 | (18.03)<br>.710   | (28.70)<br>.1.130 |                   |
| * -30 | (0.89)<br>.035    | (9.27)<br>.365    | (5.84)<br>.230    |
| * -41 | (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               | 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             |                 |                  |   |
| * -30          | (15.24)<br>.600 |                | (15.24)<br>.600 |                 |                  |   |

\* Available with -LA  
(Locking Lead) Option

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

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