



(1,27 mm) .050"

TFM, TFML SERIES

# SMT & THROUGH-HOLE HEADER

## SPECIFICATIONS

For complete specifications and recommended PCB layouts see [www.samtec.com?TFM](http://www.samtec.com?TFM) or [www.samtec.com?TFML](http://www.samtec.com?TFML)

### Insulator Material:

Black Liquid

Crystal Polymer

### Terminal Material:

Phosphor Bronze

### Plating:

Au or Sn over 50µ" (1,27 µm) Ni

### Voltage Rating:

250 VAC mated with SFM

### Operating Temp Range:

-55°C to +125°C

### RoHS Compliant:

Yes



| CURRENT RATING<br>(PER CONTACT) |         |
|---------------------------------|---------|
| AMBIENT TEMP                    | TFM/SFM |
| 20°C                            | 5A      |
| 40°C                            | 4.5A    |
| 60°C                            | 3.9A    |
| 95°C                            | 2.6A    |
| 6 POSITIONS (2x3) POWERED       |         |

## Processing:

Lead-Free Solderable:

Yes

### SMT Lead Coplanarity:

(0,10 mm) .004" max (05-25)

(0,15 mm) .006" max (30-50)

## MATED HEIGHT

| LEAD STYLE |     | MATED HEIGHT* |
|------------|-----|---------------|
| TFM        | SFM |               |
| -02        | -02 | (6,35) .250   |
| -12        |     | (8,13) .320   |
| -22        |     | (9,91) .390   |
| -32        |     | (11,81) .465  |
| LEAD STYLE |     | MATED HEIGHT* |
| TFM        | SFM |               |
| -01        | -01 | (5,97) .235   |
| -03        |     | (5,97) .235   |
| -11        |     | (7,75) .305   |
| -13        |     | (7,75) .305   |
| -21        |     | (9,53) .375   |
| -23        |     | (9,53) .375   |
| -31        |     | (11,43) .450  |

\*Processing conditions will affect mated height.

## COST-SAVING APPLICATIONS

See TFC Series for lower cost plating options.

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

**TFM Mates with:**  
SFM, SFMC, SFSD

**TFML Mates with:**  
SFML, SFSD (-XL option),  
SFSDT (-XL option)

**TFM-DH Mates with:**  
SFM (-DH), SFMC,  
SFSDX (-S, -D, -SR, -DR)

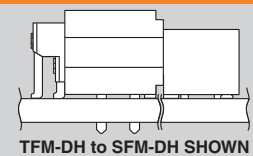


Shrouded body  
for blind mating

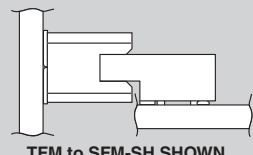
(1,27 mm x 1,27 mm)  
.050" x .050"  
micro pitch

Surface mount or  
Through-hole tails

## APPLICATIONS



TFM-DH to SFM-DH SHOWN



TFM to SFM-SH SHOWN

## TYPE STRIP

1

## NO. PINS PER ROW

04, 06, 08  
(TFM & -01 only)

05, 07, 10, 15, 20,  
25, 30, 35, 40, 45, 50  
(Call Samtec for other sizes)

## LEAD STYLE

Specify  
LEAD STYLE  
from chart

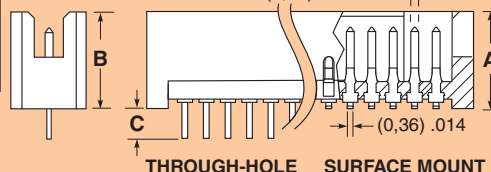
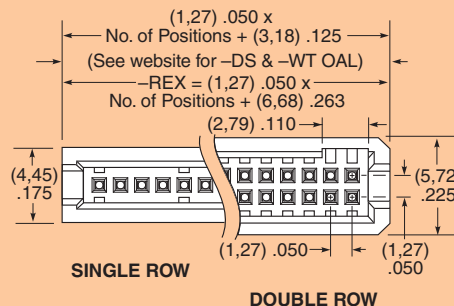
## PLATING OPTION

-L  
= 15µ" (0,38 µm)  
Gold on post,  
Matte Tin on tail  
(Call Samtec for  
E.L.P. plating option)

**Note:** Other Gold plating options available. Contact Samtec.

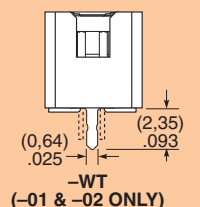
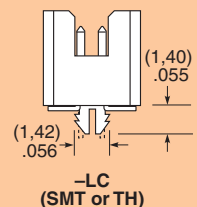
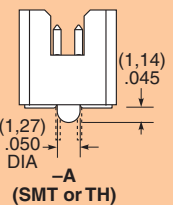
| LEAD STYLE (T/H) | B            | C           |
|------------------|--------------|-------------|
| -01              | (5,59) .220  | (1,97) .078 |
| -03*             | (5,59) .220  | (2,77) .109 |
| -11*             | (7,37) .290  | (1,97) .078 |
| -13*             | (7,37) .290  | (2,77) .109 |
| -21*             | (9,14) .360  | (1,97) .078 |
| -23*             | (9,14) .360  | (2,77) .109 |
| -31*             | (11,05) .435 | (1,97) .078 |

\* N/A with 07 or -S row option



| LEAD STYLE (SMT) | A            |
|------------------|--------------|
| -02              | (5,72) .225  |
| -12*             | (7,49) .295  |
| -22*             | (9,27) .365  |
| -32*             | (11,18) .440 |

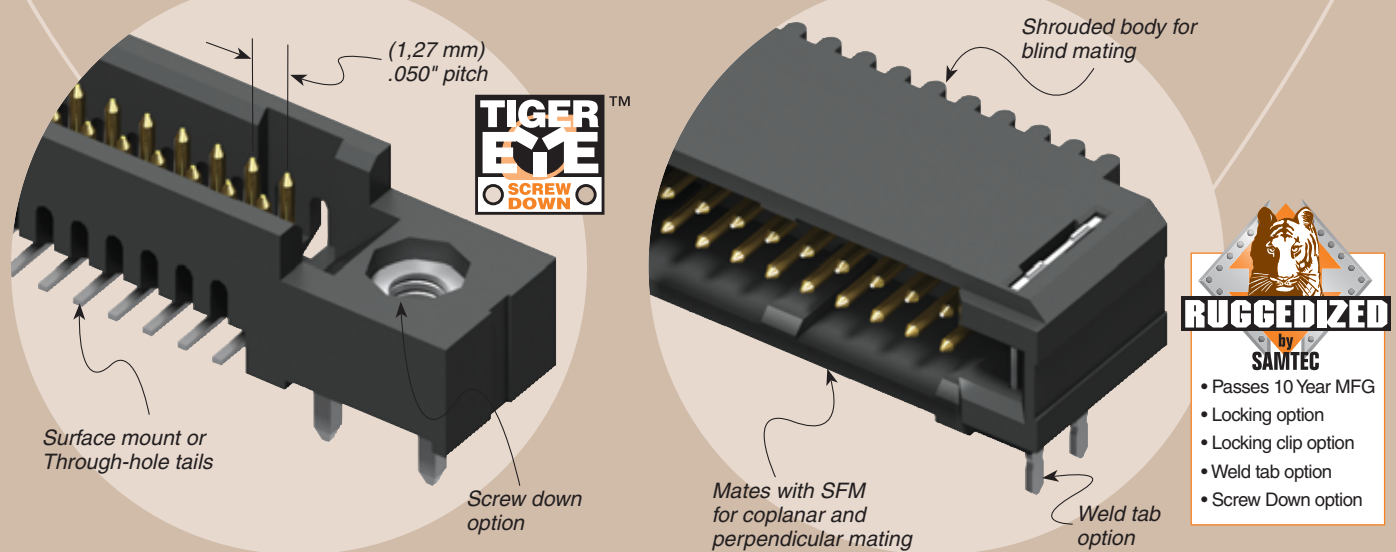
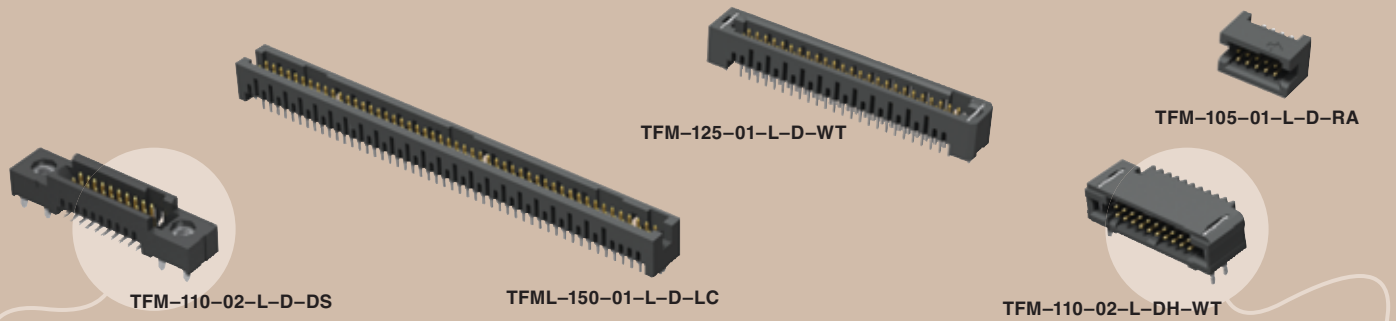
\* N/A with 07, -DH or -S row option



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

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## ROW OPTION

### -S

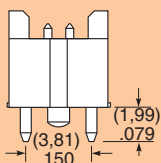
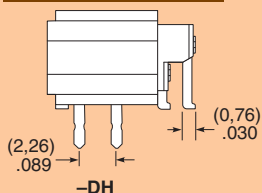
= Single Row  
(TFM only)

### -D

= Double Row

### -DH

= Double Horizontal  
(TFM lead style -02 only)  
(05 thru 50 positions only)  
(-WT standard; -TR option only available)



Specify only -RA, -RE1 or -RE2

### -RA

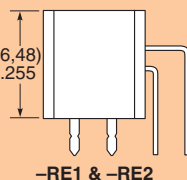
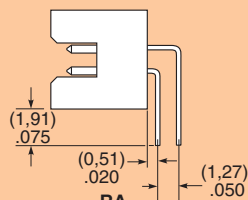
= Right Angle  
(Lead style -01 only)

### -RE1

= Right Angle Elevated for (1,58 mm) .062" PCB  
(Requires TFM lead style -01, -D row and -WT)

### -RE2

= Right Angle Elevated for (2,36 mm) .093" PCB  
(Requires TFM lead style -01, -D row and -WT)



## OPTION

Specify only -A, -LC, -DS or -WT  
Not available with -RA, -RE1 and -RE2 unless otherwise noted.

### -A

= Alignment Pin

### -LC

= Locking Clip  
(Manual Placement required)

### -DS

= Dual Screw Down for  
(1,60 mm) .062" PCB  
(05, 07, 10, 15, 20, 25, 30, 35, 40 positions only)  
(TFM lead styles -01 and -02 only)  
(Requires -D row option)  
(Mates with SFM-DS option and SFSD/SFSDT-SS and -DS option only)

### -WT

= Weld Tab  
(TFM lead styles -01 and -02 only)  
(Standard with -DH)  
(Mates to SFSS/SFSD -SR and -DR option only)  
(05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 positions only)

SMT lead styles only  
Specify only -K or -P

### -K

= Polyimide Film Pick & Place Pad

### -P

= Plastic Pick & Place Pad  
(5 positions minimum)

Specify -TR last

### -TR

= Tape & Reel  
(Not available with -DS)

## APPLICATION SPECIFIC OPTION

Solder nail option available.  
Call Samtec.

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