



(1,27 mm) .050"

# 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

### Current Rating (TFM/SFM):

3.2 A per pin

(1 pin powered per row)

### Voltage Rating:

250 VAC mated with SFM

### Operating Temp Range:

-55°C to +125°C

### RoHS Compliant: Yes

### Processing:

Lead-Free Solderable: Yes

### SMT Lead Coplanarity:

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

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

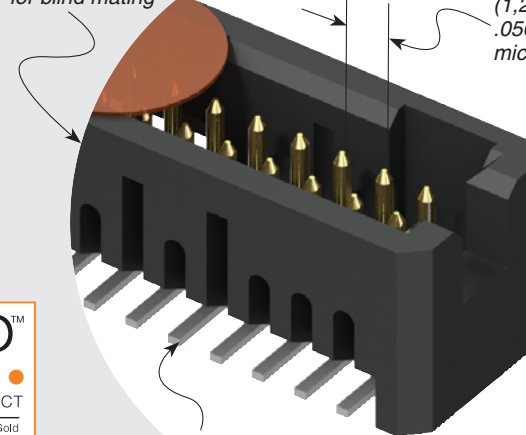
TFM Mates with:  
SFM, SFMC, SFSD

TFML Mates with:  
SFML

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



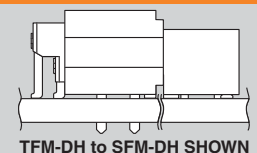
Shrouded body  
for blind mating



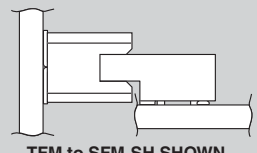
Surface mount or  
Through-hole tails

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

## APPLICATIONS



TFM-DH to SFM-DH SHOWN



TFM to SFM-SH SHOWN

## RECOGNITIONS

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



FILE NO. E111594



FILE NO. 99071\_0\_000

## 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.

## OTHER SOLUTIONS

- Lower cost plating options. See TFC Series.

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

## TYPE STRIP

1

## NO. PINS PER ROW

03, 04, 06, 08  
(TFM -01 & -02 only)

05, 07, 10, 15, 20,  
25, 30, 35, 40, 45, 50  
(Standard 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)

TFM  
= Standard  
  
TFML  
= Locking  
(-01 & -02  
lead style only)

| 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

(1,27) .050 x  
No. of Positions + (3,18) .125



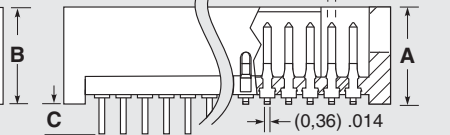
SINGLE ROW

(See website for -DS & -WT OAL)  
-REX = (1,27) .050 x  
No. of Positions + (6,68) .263



DOUBLE ROW

(1,27) .050  
(0,46) .018 DIA

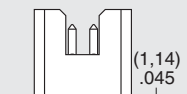


THROUGH-HOLE

SURFACE MOUNT

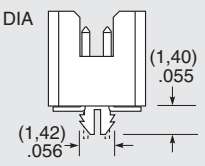
| LEAD STYLE (SMT) | A            |
|------------------|--------------|
| -02              | (5,72) .225  |
| -12*             | (7,49) .295  |
| -22*             | (9,27) .365  |
| -32*             | (11,18) .440 |

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

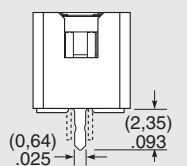


(1,27) .050 DIA

-A (SMT or TH)



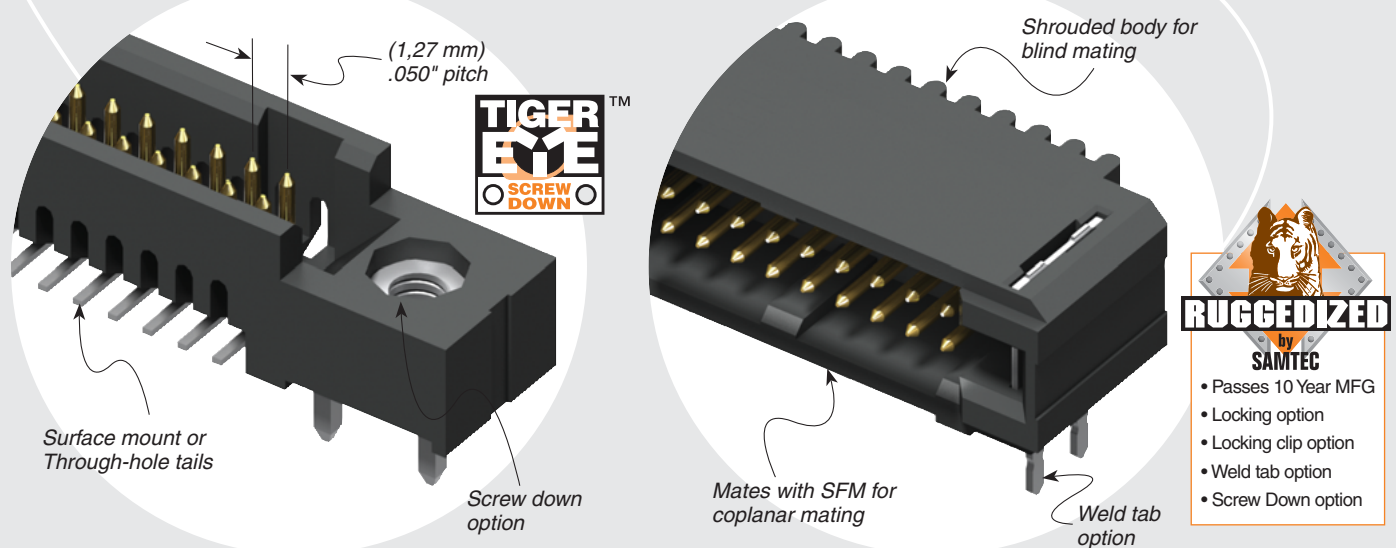
-LC (SMT or TH)



-WT (-01 & -02 ONLY)



## TFM, TFML SERIES



### ROW OPTION

#### -S

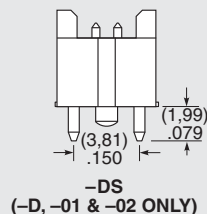
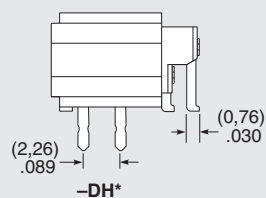
= Single Row  
(TFM only)

#### -D

= Double Row

#### -DH\*

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



Specify only -RA, -RE1 or -RE2

#### -RA

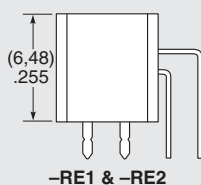
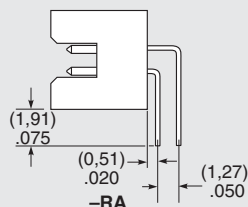
= Right Angle  
(Lead style -01 only)

#### -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)  
(Not available with -A, -LC,  
-WT, -K, -P, -TR)

#### -WT

= Weld Tab  
(TFM lead styles -01 and -02 only)  
(Required callout for -RE1 & -RE2)  
(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)  
(Not available with  
5 position with -WT)

Specify -TR last

#### -TR

= Tape & Reel  
(Not available with -DS)

### ALSO AVAILABLE (MOQ Required)

- Solder nail option
- Other sizes
- Other platings
- Contact Samtec.

\* Note: Weld tab is standard on -DH option.  
No need to specify -WT.