

(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 50 μ" (1.27 μm) Ni  
**Current Rating (TFM/SFM):**  
3.2 A per pin  
(2 pins powered)  
**Voltage Rating:**  
250 VAC mated with SFM  
**Operating Temp Range:**  
-55 °C to +125 °C  
**RoHS Compliant:**  
Yes

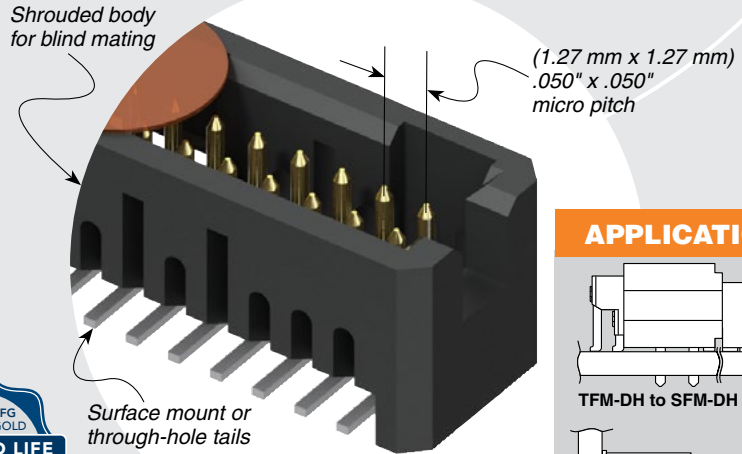
**TFM Board Mates:**  
SFM, SFMC

**TFM Cable Mates:**  
SFSD

**TFML Board Mates:**  
SFML

**TFM-DH Board Mates:**  
SFM (-DH), SFMC

**TFM-DH Cable Mates:**  
SFSDX (-S, -D, -SR, -DR)

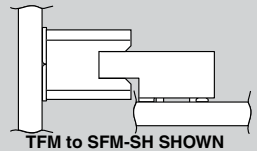
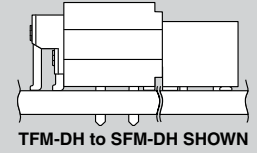


### HIGH-SPEED CHANNEL PERFORMANCE

Rating based on Samtec reference channel. For full SI performance data visit [Samtec.com](http://Samtec.com) or contact [SIG@samtec.com](mailto:SIG@samtec.com)

8 Gbps

## APPLICATIONS



## PROCESSING

**Lead-Free Solderable:**  
Yes  
**SMT Lead Coplanarity:**  
(0.10 mm) .004" max (05-25)  
(0.15 mm) .006" max (30-50)\*  
\*(.004" stencil solution may be available; contact [IPG@samtec.com](mailto:IPG@samtec.com))

## RECOGNITIONS

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



## MATED HEIGHTS

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.

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

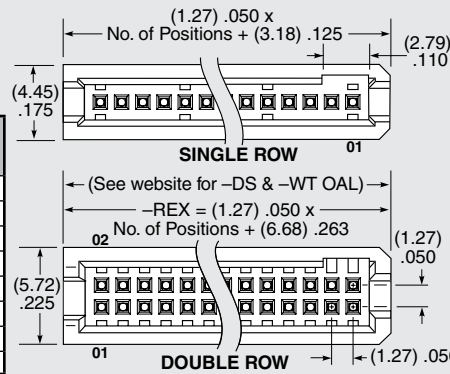
Specify LEAD STYLE from chart

PLATING OPTION

-L  
= 15 μ" (0.38 μm)  
Gold on post,  
Matte Tin on tail  
(Call Samtec for E.L.P.™ plating option)

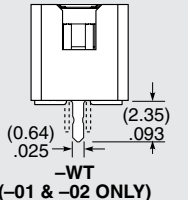
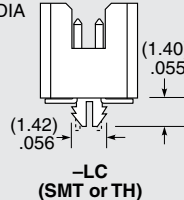
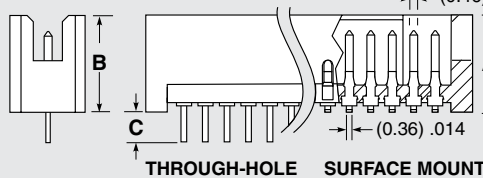
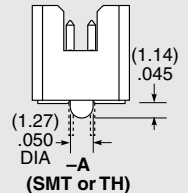
LEAD STYLE (T/H)	B	C
-01	(5.59) .220	(1.97) .078
-03*	(5.59) .220	(2.77) .109
-11*	(7.37) .290	(1.97) .078
-13*	(7.37) .290	(2.77) .109
-21*	(9.14) .360	(1.97) .078
-23*	(9.14) .360	(2.77) .109
-31*	(11.05) .435	(1.97) .078

\* Not Available 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



## OTHER SOLUTIONS

- Lower cost plating options. See TFC Series.

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

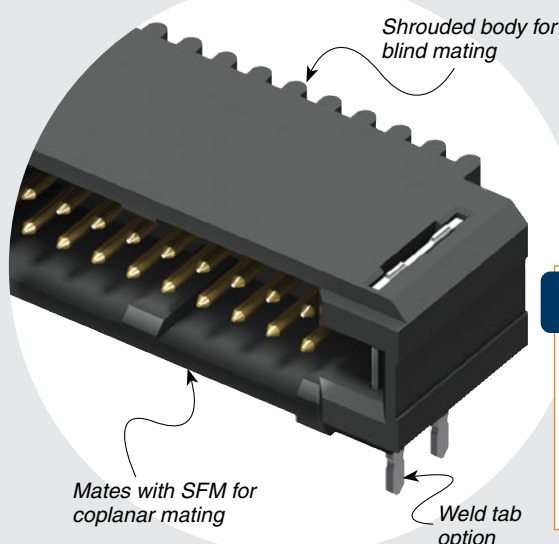
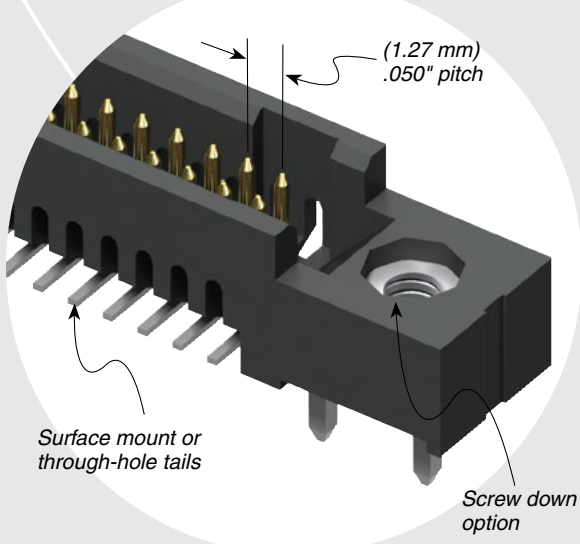
Due to technical progress, all designs, specifications and components are subject to change without notice.

[WWW.SAMTEC.COM](http://WWW.SAMTEC.COM)

All parts within this catalog are built to Samtec's specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



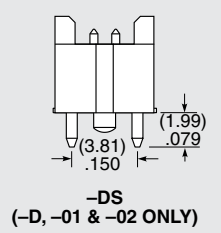
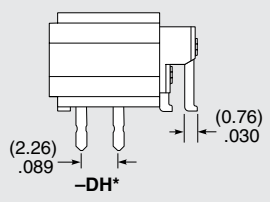
**TFM, TFML SERIES**



- Passes 10 Year MFG
- Locking option
- Locking clip option
- Weld tab option
- Screw down option

**ROW OPTION**

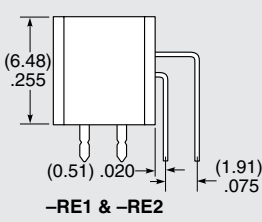
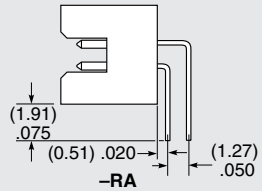
- S**  
= Single Row (TFM only)
- D**  
= Double Row
- DH\***  
= Double Horizontal (TFM lead style -02 only) (05 thru 50 positions only) (-TR option only available)



**OPTION**

- 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)

**Note:** The recommended -REX PCB board layout is different from the -RA. Contact IPG@samtec.com before designing your board for specifications.



- 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)

- 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

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

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