

(1.27 mm) .050"

SFM-110-02-L-D-A

SFML-125-T2-L-D-LC

SFM-125-02-L-SH

SFML-115-T2-L-D-LC

# SMT & THROUGH-HOLE TIGER EYE™ SOCKET

## SPECIFICATIONS

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

### Insulator Material:

Black Liquid Crystal Polymer

### Plating:

Au or Sn over 50 μ" (1.27 μm) Ni

### Current Rating (SFM/TFM):

3.2 A per pin

(2 pins powered)

### Voltage Rating:

250 VAC mated with TFM

### Operating Temp Range:

-55 °C to +125 °C

### Insertion Depth:

(3.05 mm) .120" to

(4.06 mm) .160"

### Wiping Distance:

(0.38 mm) .015"

### Normal Force:

Standard= 132 g (1.29 N) avg.;

LIF= 90 g (0.88 N) avg.

### Max Cycles:

10,000 with 30 μ" (0.76 μm) Au

(Call Samtec for E.L.P.™

plating option)

### RoHS Compliant:

Yes

### SFM Board Mates:

TFM

### SFM Cable Mates:

TFSD, TFSS

### SFML Board Mates:

TFML



Low insertion force  
Tiger Eye™ contacts available

(1.27 mm x 1.27 mm)  
.050" x .050" micro pitch

Locking feature  
increases unmating  
force (SFML)

Choice of SMT or  
through-hole tails

**RUGGEDIZED**  
BY SAMTEC

- Passes 10 Year MFG
- Locking option
- Locking clip option
- Screw Down option

### 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

## 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)

## RECOGNITIONS

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



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

TYPE  
STRIP

1

NO. PINS  
PER ROW

LEAD STYLE

**SFM**  
= Standard

**SFML**  
= Locking

**03, 04, 06, 08**  
(SFM only)

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

(Surface Mount)

**-02**

= Tiger Eye™ Contact  
(BeCu)

**-L2**

= Low Insertion Force  
Tiger Eye™ Contact  
(BeCu)

**-T2**

= Tiger Eye™ LITE Contact  
(Phosphor Bronze)

(Through-hole)

**-01, -03**

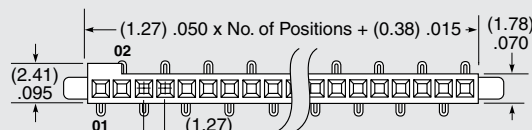
= Tiger Eye™ Contact  
(BeCu)

**-L1, -L3**

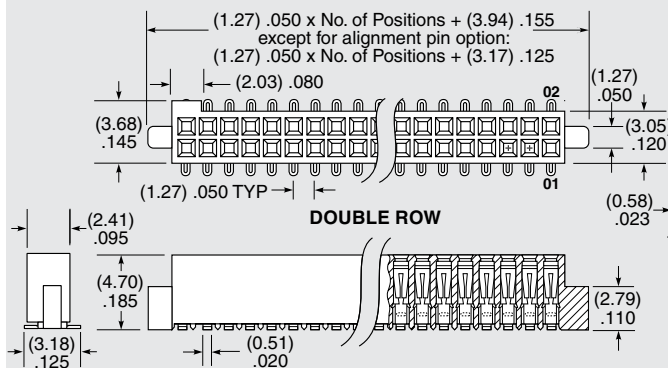
= Low Insertion Force  
Tiger Eye™ Contact  
(BeCu)

**-T1**

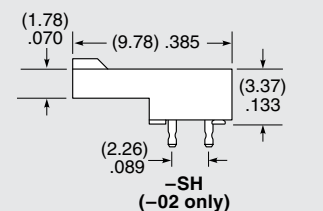
= Tiger Eye™ LITE Contact  
(Phosphor Bronze)



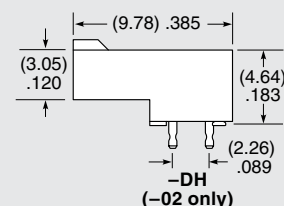
**SINGLE ROW**



**DOUBLE ROW**



**-SH**  
(-02 only)



**-DH**  
(-02 only)

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

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Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



## SFM, SFML SERIES

High-reliability  
Tiger Eye™  
contacts

(1.27 mm x 1.27 mm)  
.050" x .050" micro pitch

Mates with TFM  
for coplanar and  
perpendicular mating

Surface mount or  
Through-hole tails

Screw down  
option

### OTHER SOLUTIONS

- Lower cost plating options.  
See SFC Series.

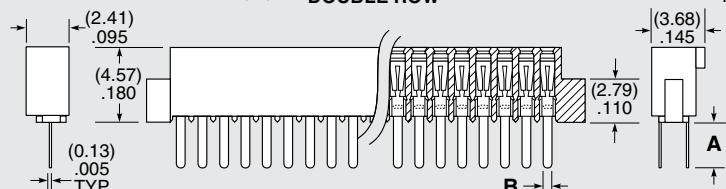
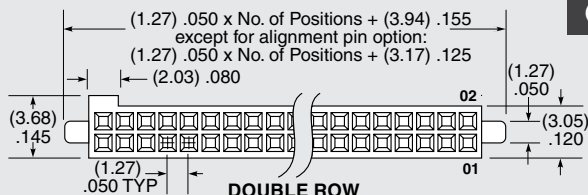
### ALSO AVAILABLE (MOQ Required)

- Solder nail option
- Other sizes
- Other platings

### PLATING OPTION

**-L**  
= 10 μ" (0.25 μm) Gold on contact, Matte Tin on tail  
(Call Samtec for E.L.P.™ plating option)

| LEAD STYLE    | A                       | B |
|---------------|-------------------------|---|
| -01, -L1, -T1 | (3.05) .120 (0.51) .020 |   |
| -03, -L3      | (1.91) .075 (0.41) .016 |   |



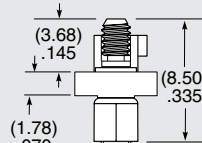
### ROW OPTION

**-S**  
= Single Row  
(SFM only)

**-D**  
= Double Row

**-SH**  
= Single Horizontal  
(05 thru 30 positions only)  
(SFM only)  
(Lead style -02 only)

**-DH**  
= Double Horizontal  
(05 thru 30 positions only)  
(SFM only)  
(Lead style -02 only)



**-DS**  
(-D, -01 -02 & -03)

### OPTION

Specify only -A, -LC or -DS  
(Not available with -DH, -SH)

**-A**  
= Alignment Pin  
(Available with all lead styles)

**-LC**  
= Locking Clip  
(Available with all lead styles)  
(Manual placement required)

**-DS**  
= Dual Screw Down for  
(1.60 mm) .062" PCB  
(05 thru 40 positions only)  
(Lead styles -01, -02 & -03 only)  
(Requires -D row option)  
(Not available with SFML)  
(Mates with TFM-DS option)  
(Not available with -A,  
-LC, -K, -P, -TR)

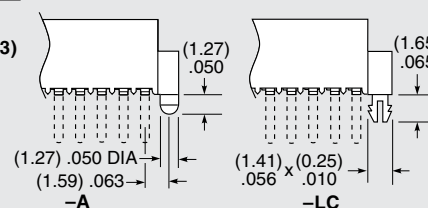
Specify only  
-K or -P  
(Lead styles -02,  
-L2, -T2 only)

**-K**  
= Polyimide film  
Pick & Place Pad  
(Not available  
with -DH, -SH)

**-P**  
= Plastic Pick &  
Place Pad  
(Not available  
with -DH, -SH)

Specify -TR last  
(Lead styles -02,  
-L2, -T2 only)

**-TR**  
= Tape & Reel  
(Required callout  
for -DH, -SH)



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