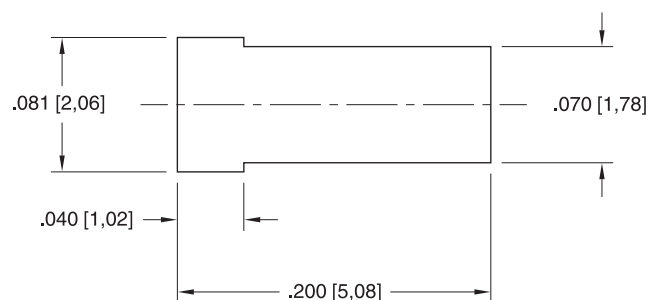
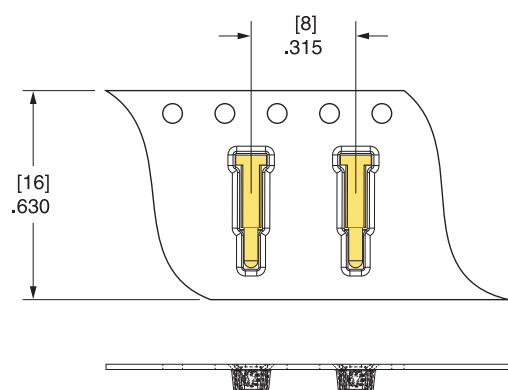


**PRODUCT NUMBER: 0988-0-15-20-89-14-11-0**

### Suggested P.C.B. Footprint



### 0988-0-58 Tape & Reel Details



### DESCRIPTION

Horizontal Surface Mount (HSMT) Spring-Loaded Pin

#### Durability:

100,000 to 1,000,000 Cycles @ Mid-Stroke

#### Current Rating:

See Spring Derating Curve

#### Operating Temperature Range:

-55/+125° C

#### Vibration:

No Elect. Discontinuity > 1μs @ 10-2000HZ, 20 G

#### Shock:

No Elect. Discontinuity > 1μs @ 50g

#### Mounting Feature:

Surface Mount

**Packaging:** 15 - Packaged in Bulk

#### Shell Plating

20 μ" Gold over Nickel

#### Spring Plating

10 μ" Gold over Nickel

#### ROHS



### SPRING:

## #89 SPRING HIGH FORCE SPRING

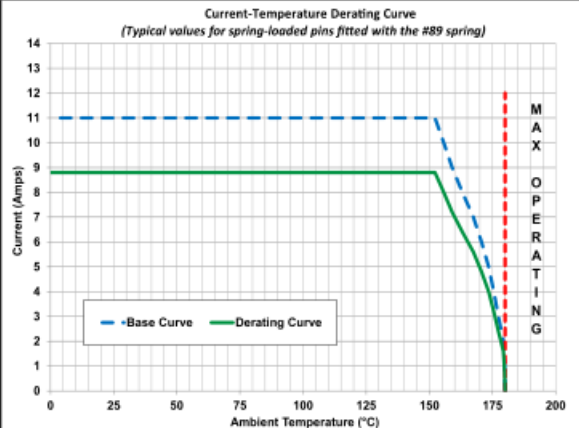
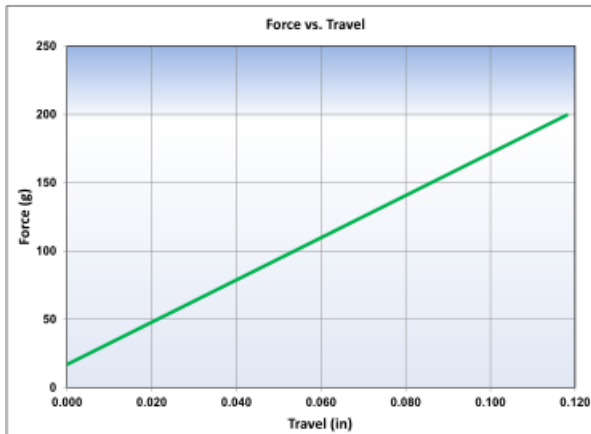
Full Stroke Capability :  $.118" \pm .005"$   $[3,0 \pm 0,127]$

Spring Material : **Stainless Steel 302**

Force @ Mid. Stroke : **100 g  $\pm$  20 g**

Mid. Stroke : **.059" [1,5]**

Initial Force (Pre-Load) : **25 g**



The stroke, force and current rating values are measured using spring pins with an internal construction per the design specification. Individual spring pin performance may vary from these values based on design differences.

Material	Stainless Steel	Grams Force	100
Max Stroke	0.12		

Maximum Current 11A @ 30° C Temp. Rise

Maximum Operating Temp @ Max Current 150.00° C

20% De-rated Maximum Current 8.80A

Contact Resistance 25.00mΩ Max

### CONTACT MATERIAL:

## Stainless Steel 302/304 per ASTM A313

This is an austenitic stainless steel round wire especially for the manufacturing of springs. It is a grade that is age hardenable with superior corrosion resistance.

### PHYSICAL PROPERTIES

- Density: 0.29 lb/in<sup>3</sup> (8.03 g/cm<sup>3</sup>)
- Tensile Strength: 325 – 355 ksi

### CHEMICAL PROPERTIES (%)

- Carbon: .08 max
- Manganese: 2.00 max.
- Phosphorus: .045 max.
- Sulfur: .030 max.
- Silicon: 1.00 max.
- Chromium: 18.0 – 20.0
- Nickel: 8.0 – 10.5

### STANDARD TOLERANCES ON PCB TERMINAL PINS & RECEPTACLES

Diameters  $\pm .002"$

Lengths  $\pm .005"$

Angles  $\pm 2^\circ$

### STANDARD TOLERANCES ON SPRING-LOADED PINS

Diameters  $\pm .002"$


Lengths  $\pm .006"$

Angles  $\pm 2^\circ$

## ADDITIONAL NOTES & SPECIFICATIONS

In the interest of improved design, quality and performance , Mill-Max reserves the right to make changes in its specifications without prior notice. Specifications and tolerances are provided wherever possible. The tolerance on dimensions of critical to function features is typically held tighter than the stated standard tolerances, such as press-fits, holes and lengths affecting the coplanarity of SMT products. Due to the wide variety of interconnects Mill-Max offers, the specific tolerances vary from product to product. If you need information regarding the tolerance of a particular part, please contact Technical Services.

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