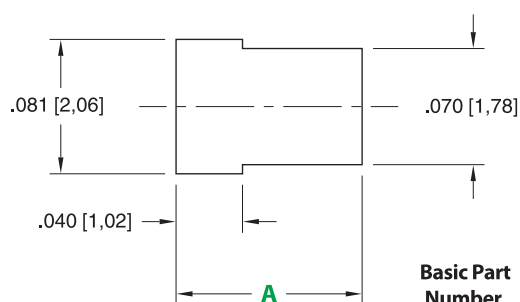


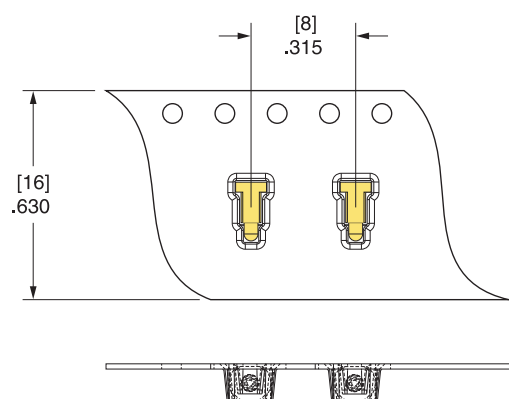
PRODUCT NUMBER: 0986-5-15-20-77-14-11-0

Suggested P.C.B. Footprint



Basic Part Number	Length (A)
0986-0	.088 [2,24]
0986-1	.112 [2,84]
0986-5	.169 [4,29]

0986-X-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

Contact Resistance:

20 mΩ Max

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:

#77 SPRING STANDARD FORCE SPRING

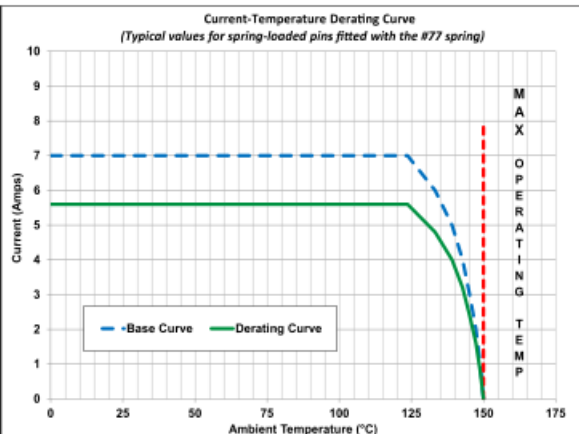
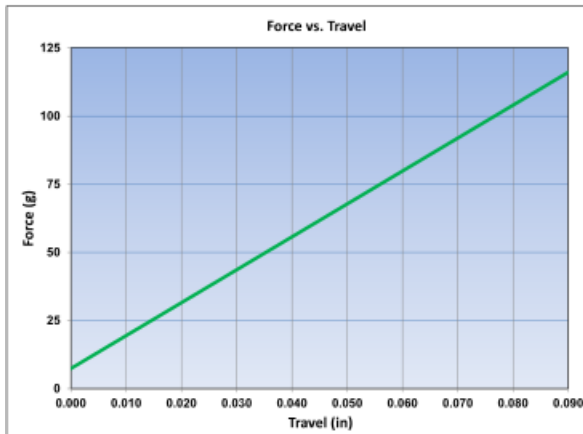
Full Stroke Capability : .090"± .005" [2,29 ± 0,127]

Spring Material : Beryllium Copper Alloy 172

Force @ Mid. Stroke : 60 g ± 20 g

Mid. Stroke : .045" [1,14]

Initial Force (Pre-Load) : 5 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	Beryllium Copper	Grams Force	60
Max Stroke	0.09		

CONTACT MATERIAL:

BERYLLIUM COPPER ALLOY 172 (UNS C17200) per ASTM B 194

Properties of BERYLLIUM COPPER:

- Chemical composition: Cu 98.1%, Be 1.9%
- Hardness: 36-43 Rockwell C
- Density: .298 lbs/in³
- Electrical Conductivity: 22% IACS*
- Resistance: 10 mΩ Max
- Operating Temperature: -55°C/+125°C
- Melting point: 980°C/865°C (liquidus/solidus)
- Stress Relaxation†: 96% of stress remains after 1,000 hours @ 100 °C; 70% of stress remains after 1,000 hours @ 200 °C

*International Annealed Copper Standard, i.e. as a % of pure copper.

†Since BeCu loses its spring properties over time at high temperatures; it is rated for continuous use up to 150°C. For applications up to 300°C, Mill-Max offers other materials. [Contact Tech Support](#) for more info.

STANDARD TOLERANCES ON PCB TERMINAL PINS & RECEPTACLES

Diameters +/- .002"

Lengths +/- .005"

Angles +/- 2°

STANDARD TOLERANCES ON SPRING-LOADED PINS

Diameters +/- .002"


Lengths +/- .006"

Angles +/- 2°

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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