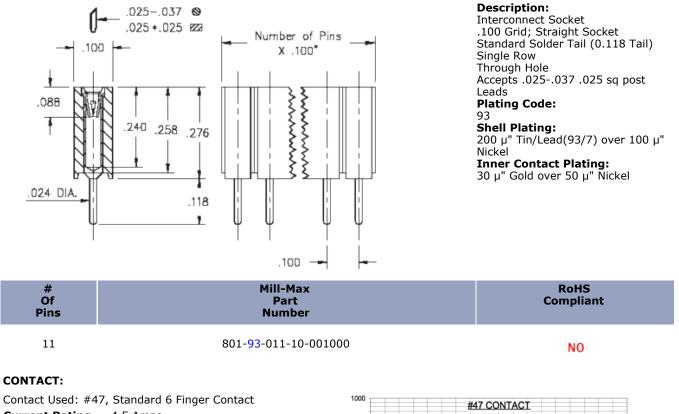
# DATA SHEET

## Product Number: 801-93-011-10-001000



Current Rating = 4.5 Amps

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

#### **Properties of BERYLLIUM COPPER:**

- Chemical composition: Cu 98.1%, Be 1.9%
- Temper as stamped: TD01

Properties after heat treatment (TH01):

- Hardness: 36-43 Rockwell C
- Mechanical Life: 100 Cycles Min.
- Density: .298 lbs/in3
- Electrical Conductivity: 22% IACS\*
- Resistance: 10 miliohms Max
- Operating Temperature: -55°C/+125°C
- Melting point: 980°C/865°C (liquidus/solidus)
- Stress Relaxation<sup>†</sup>: 96% of stress remains after 1,000 hours @ 100 °C ; 70% of stress remains after 1,000 hours @ 200 °C



The insertion/extraction/normal force characteristics above were derived using a 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values. The charts only guide you in selecting a clip that is close to your specification. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

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

<sup>+</sup>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 many contacts in Beryllium Nickel. Contact Tech Support for more info.

### LOOSE PIN:

Pin Used: 1304 (Brass Alloy)

#### BRASS ALLOY (UNS C36000) per ASTM B 16

#### **Properties of BRASS ALLOY:**

- Chemical composition: Cu 61.5%, Zn 35.4%, Pb 3.1%<sup>+</sup>
- Hardness as machined: 80-90 Rockwell B
- Density: .307 lbs/in3
- Electrical conductivity: 26% IACS\*
- Melting point: 900°C/885°C (liquidus/solidus)

+(3 to 4% lead is used to permit "free machining" and is permitted by EC Directive 2002/95Annex 6; so all pin materials are RoHS compliant)

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

#### **INSULATOR INFORMATION:**

PCT Polyester, (Thermx CG933, black)

High Temperature

#### **Properties of PCT Polyester:**

- Brand: Thermx
- Grade: CG-933
- Rated voltage: 100 VRMS/150 VDC
- Insulation resistance: 10,000 Megaohms min.
- Material Heat Deflection Temp (per ASTM D 648): 529°F (276°C) @ 66 psi
- Dielectric strength: 1000 VRMS min. (700 VRMS min. for series 117 Shrink DIP)

Note: Materials above 446°F (230°C) are considered suitable for "eutectic" reflow soldering, above 500°F (260°C) for "lead-free" reflow soldering.