# PRODUCT NUMBER: 851-47-020-20-001000

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DATA SHEET



| General Information | | |
|---|---|---|
| 1 | **Product Lifecycle:** | Active |
| | **Product Family:** | PCB Connector |
| | **Type:** | Machined Pin Socket |
| 2 | **Description:** | Right Angle Socket |
| | **Description2:** | Accepts .015"- .020" (0,38 - 0,508 mm) dia leads |
| | **Pitch:** | .050" (1,270mm) |
| | **Number of Pins:** | 20 |
| | **Head Type:** | N/A |
| | **Tail Type:** | Solder Tail |
| 3 | **Operating Temperature Range:** | -55/+125° C |
| | **Country of Origin:** | USA |
| 4 | **ROHS:** | Yes |

## 851-47-020-20-001000 - SPECIFICATIONS

| Product Attributes | |
|---|---|
| 5 **Plating Code:** | 47 - shell: 200 µ" Tin (matte finish) over 100 µ" Nickel - inner contact: Gold Flash |
| **Insulator Material:** | Nylon 4/6 |
| **Rows:** | Single Row |
| **Frame Type:** | N/A |
| 6 **Contact Number:** | 11 - Standard 3 Finger Contact |
| **Mounting Tab:** | N/A |

| Key Dimensions | |
|---|---|
| **Accepting Lead Range:** | .015"-.020" (0,381-0,508mm) |
| **Above Board Height:** | .087" (2,210mm) |
| **Insulator Height:** | .161" (4,089mm) |
| **Tail Diameter:** | .018" (0,457mm) |
| **Tail Length:** | .118" (2,997mm) |

| Electrical Specifications | |
|---|---|
| 7 **Current Rating:** | 3 Amps |
| **Contact Resistance:** | 10.00mΩ Max |
| **Insulation Resistance:** | 10,000 MΩ min. |
| **Rated Voltage:** | 100 VRMS/150 VDC |
| **Dielectric Withstanding Voltage:** | 1,000 VRMS min. |

| Mounting Specifications | |
|---|---|
| **Mounting Type:** | Through Hole Solder Mount |
| **Mounting Hole:** | .026" (0,660mm) |
| **Mounting Tab:** | N/A |
| **SMT Pad Size:** | N/A |

| Packaging Information | |
|---|---|
| 8 **Packaging:** | Packaged in Box or Tube |
| **Tape Width:** | N/A |

| Environmental & Export Classifications | |
|---|---|
| **REACH Status:** | REACH Unaffected |
| **ECCN:** | Contact Factory |
| **HTSUS:** | 8536.90.4040 |
| **Cage Code:** | 3N087 |
| **Moisture Sensitivity Level (MSL):** | 1 (Unlimited) |
| **Special Handling Code:** | UNDF |
| **Prop 65:** | N |
| **Static Sensitive:** | N |

## NOTES:

1. Part is Active and in Production, No Scheduled Obsolescence
2. **Standard Tolerances**
   Assembly tolerance: +/-.010" (.25mm)
   Connector Length "L"

| Connector Length "L" | Tolerance |
|---|---|
| L ≤ 2" (L ≤ 50.8 mm) | +/- .005" (+/- .127 mm) |
| 2< L ≤ 3" (50.8 < L ≤ 76.2 mm) | + .007/ - .006" (+ .178/ -.152 mm) |
| 3< L ≤ 4" (76.2 < L ≤ 101.6 mm) | + .009 / - .007" (+ .229 / - .178 mm) |
| 4< L ≤ 5" (101.6 < L ≤ 127 mm) | + .011 / - .008" (+ .279 / - .203 mm) |
| 5< L ≤ 6.4" (127 < L ≤ 162.56 mm) | + .013 / - .009" (+ .330 / - .229 mm) |

   Insulator width: +/-.005 (.13mm)
   Insulator height: +/-.005 (.13mm)
   Co-planarity of SMT connectors: .005" (.13mm) up to 1" (25.4mm) in connector length
   Insulator Flatness: .005" (.13mm) up to 1" (25.4mm) in connector length
   Pin Length: +/-.005 (.13mm)
   Pin Diameter: +/-.002 (.051mm)
   Pin Angle: +/-2°
3. Per IEC 60512-11-(4,-9,-10,-12)
4. Mill-Max products labeled with the RoHS symbol are compliant with all three ROHS Directives. All of our products previously described as RoHS (2002/95/EC) and RoHS-2 (2011/65/EC) are also compliant with RoHS-3 (2015/863/EU).
5. **Shell Plating:** 200 µ" Tin (matte finish) over 100 µ" Nickel
   **Contact/Clip Plating:** Gold Flash
6. Click the Link for Insertion/Extraction Force & Current/Temperature Derating Graphs
7. Per IEC 60512-5-1, Current Carrying Capacity (evaluated at 10˚ C Temp. Rise)
8. Not all part numbers in the series may be packaged in tubes. Some specific part numbers may be packaged in a box.

## ADDITIONAL NOTES AND 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.

## RELATED LINKS AND DOCUMENTS

- Product Detail: 851-47-020-20-001000 - Right Angle Socket
- Engineering Notebook: **Introduction to Machined Pin PCB Connectors & Interconnects**
- Environmental Compliance: https://www.mill-max.com/rohs