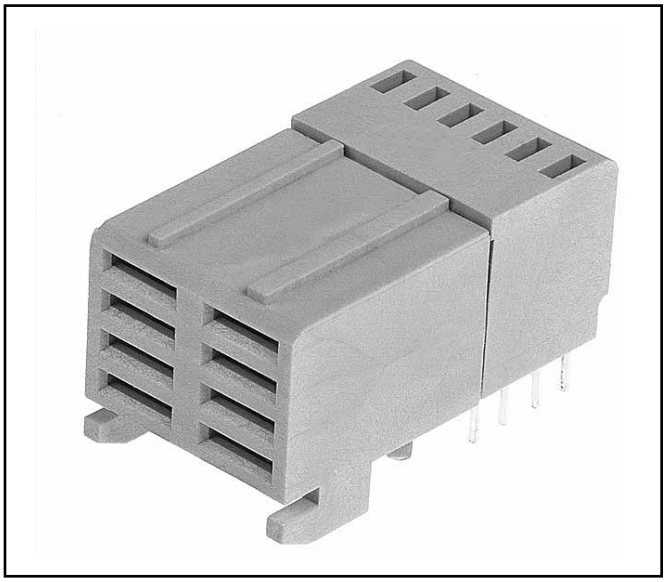
# 3M™ MetPak™ 2-FB Power Socket

2 mm 4/5-Row, Right Angle, Solder or Press-Fit Tail MP2 Series



- 6.50 Amps per contact
- End-to-end stackable
- Press or heat stake peg (solder tail)
- Futurebus+® compatible
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnectors.com for compliance information (RIA E1 & C1 apply)

Date Modified: September 17, 2013



## Physical

**Insulation:**

Material: High Temperature LCP

Flammability: UL 94V-0

Color: Beige

**Contact:**

Material: Copper Alloy

**Plating:**

Underplating: 50 µ" [1.27 µm] Nickel

Wiping Area: See Ordering Information

Tails: See Ordering Information

## Electrical

**Current Rating:** Power: 6.50 A per power socket contact at 70°C

**Insulation Resistance:** $10^3$ MΩ

**Withstanding Voltage:** 1,500 $V_{AC}$ for 60 seconds

## Environmental

**Temperature Rating:** -55° C to 125° C

**Process Temperature Rating:** 260°C (Profile per J-STD-020C)

**Moisture Sensitivity Level:** 1 (per J-STD-020C)

UL File No.: E68080

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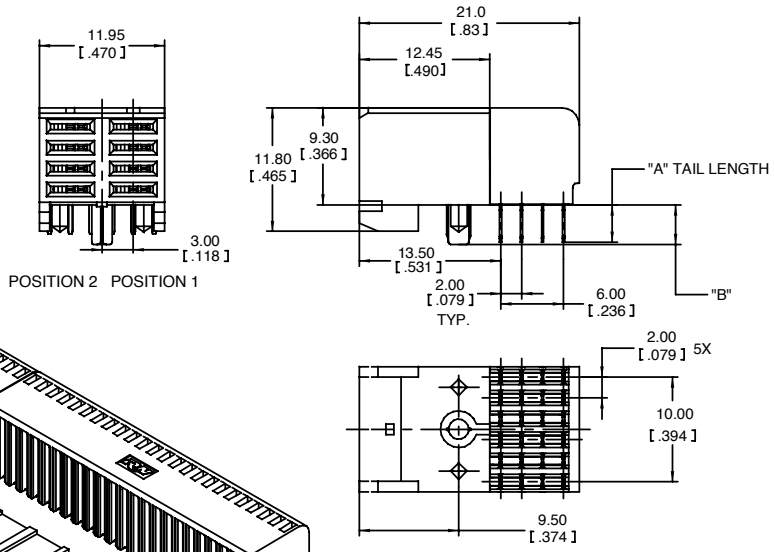
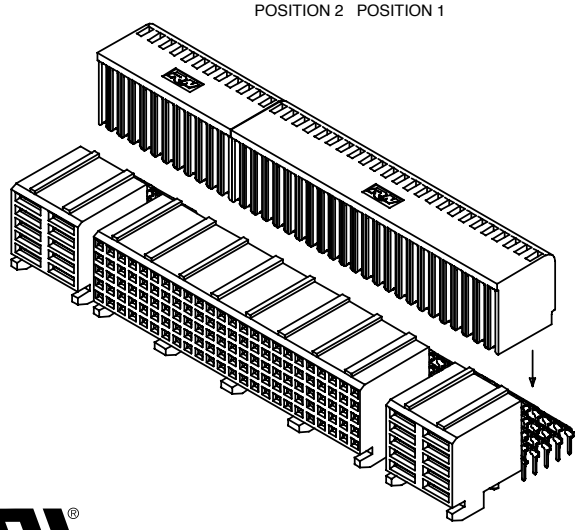
2 mm 4/5-Row, Right Angle, Solder or Press-Fit Tail — MP2 Series




4 ROW PRODUCT



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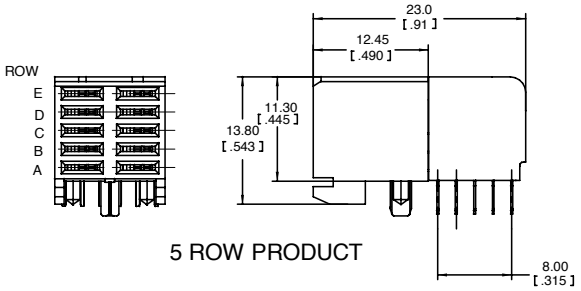
mm
(Inch)

| Tolerance Unless Noted | | | |
|---|---|---|---|
| | 0 | 0.0 | 0.00 |
| mm | ±3 | ±0.3 | ±0.13 |

( ) Dimensions used for
Reference Only




5 ROW PRODUCT

Note:
1. Refer to IEC 61076-4-104 Futurebus+® global standard.
2. "Press Fit" describes a contact tail having a compliant section designed to make a reliable electrical connection with a plated through-hole (PTH) in a printed circuit board, typically a "back plane."

## Ordering Information

**MP2-SPXX-X1XX- XXXXX**

- SP = Power Socket
- Contact Count (See Table 1)
- Rows: 4 = 4 Rows; 5 = 5 Rows
- Termination Style: P = Press-Fit; M = Solder Tail (Press Peg)
- Tail Length (See Table 2)
- Plating Options: (See Table 3)



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Interconnect Solutions
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**800-225-5373**

| Table 1 | |
|---|---|
| **Pin Count** | **No of Rows** |
| 08 | 4 |
| 10 | 5 |

| Table 2 - Tail & Post Lengths | | | |
|---|---|---|---|
| **Contact-to-PC Board Tail Termination Option No.** | | **Dim. "A"** | **Dim. "B"** |
| Solder | Press-Fit* | | |
| S1 | | 2.72 [0.107] | 5.20 [0.205] |
| S2 | | 3.53 [0.139] | 6.00 [0.256] |
| M1 | | 2.72 [0.107] | 3.57 [0.141] |
| M2 | P1 | 3.53 [0.139] | 3.57 [0.141] |

*Compliant-Pin Tail

| Table 3 - Plating | | | |
|---|---|---|---|
| **Plating Suffix** | **Press-Fit Tails*** | **Solder Tails** | **Plating Composition** |
| KR | RIA E1 & C1 apply | RIA E1 & C1 apply | 0.76 µm [30 µ"] Min. Au Contact Area<br>2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over |
| LR | RIA E1 & C1 apply | RIA E1 & C1 apply | 0.08 µm [3 µ"] Min. Au Contact Area<br>0.67 µm [27 µ"] Min. PdNi Contact Area<br>2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over |

*Compliant-Pin Tail




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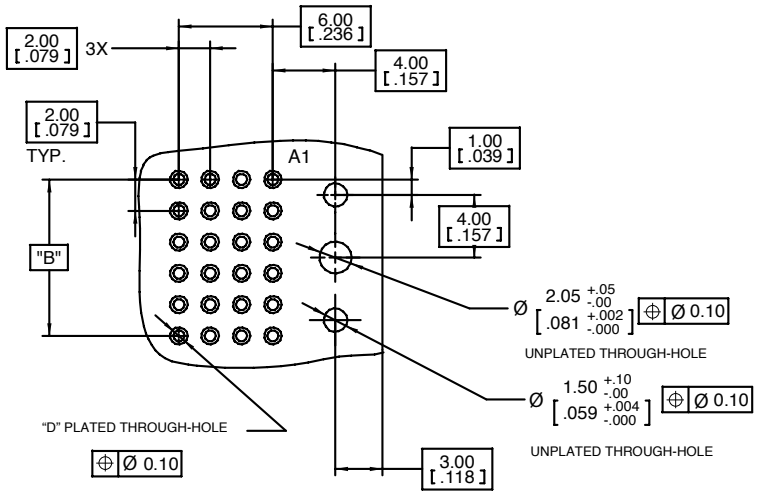
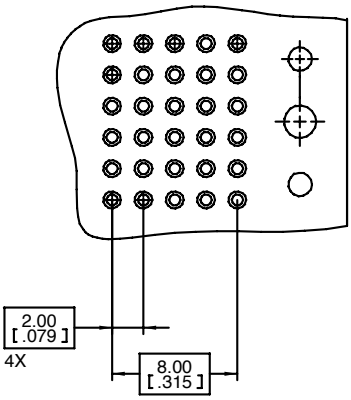



**Recommended 4 Row PCB Hole Mounting Pattern**




**Recommended 5 Row PCB Hole Mounting Pattern**

**Table 4 - HOLE PLATING FINISHES**

| HOLE | Finished Dia. mm [in] | Cu Thickness mm [in] | Immersion Matte Sn Thickness microns [µ"] | Electrolitic Au Thickness microns [µ"] | OSP ENTEK Thickness microns [µ"] | Drilled Hole Dia. mm [in] |
|---|---|---|---|---|---|---|
| "D" | 0.700-0.800 [.0276-.0315] | 0.025-0.045 [0.001-0.002] | 0.5 - 2.5 [20 - 100] | 0.1 - 0.5 [4 - 20] | 0.2 - 0.5 [8 - 20] | 0.830-0.860 [.0330-.0340] or 0.85mm [ #66] TWIST DRILL |

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