

# 3M™ Mini D Ribbon (MDR) Connectors

.050" Boardmount Through-Hole R. A. Condo Receptacle – Shielded

102 Series



- Wiper-on-wiper contact for reliable repetitive plugging
- Rugged die cast metal case construction
- Screw lockdown for reliable PCB retention
- Interface latch design for connection stability
- Stacked receptacles save board space
- Contacts: 40 (2 × 20), 100 (2 × 50) and 136 (2 × 68)
- Regulatory Information: Visit [3M.com/regs](http://3M.com/regs) or contact your 3M representative to find the RoHS compliance status of the 3M part you are interested in.

Date Modified: October 24, 2019

TS-0671-D  
Sheet 1 of 3

## Physical

**Insulation Material:** Glass Reinforced Polyester (PBT)

Flammability: UL 94V-0

Color: Black

**Contact Material:** Copper Alloy

### Plating

Underplating: 80 μ" [2.0 μm] Nickel

Wiping Area: 20 μ" [0.50 μm] Min. Gold

Solder Tail Plating: Gold flash over Nickel

**Body Material:** Zinc Alloy

Plating: Nickel

### Shroud & Latch Hook

Material: Steel

Plating: Nickel

Other Materials: Zinc Die Cast (Ground Lock), Stainless Steel (Joint Plate)

**Marking:** 3M Logo and Part Number

## Electrical

**Current Rating:** 1 A

**Insulation Resistance:**  $>5 \times 10^8 \Omega$  at 500 V<sub>DC</sub>

**Withstanding Voltage:** 500 V<sub>RMS</sub> for 1 Minute

## Environmental

**Temperature Rating:** -20°C to +85°C

**Process Rating:** Solder Dip Test – 260°C for 10 secs., two times after 100°C max. preheat, 60 sec. max. duration.

UL File No.: E68080



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<http://www.3M.com/interconnect>

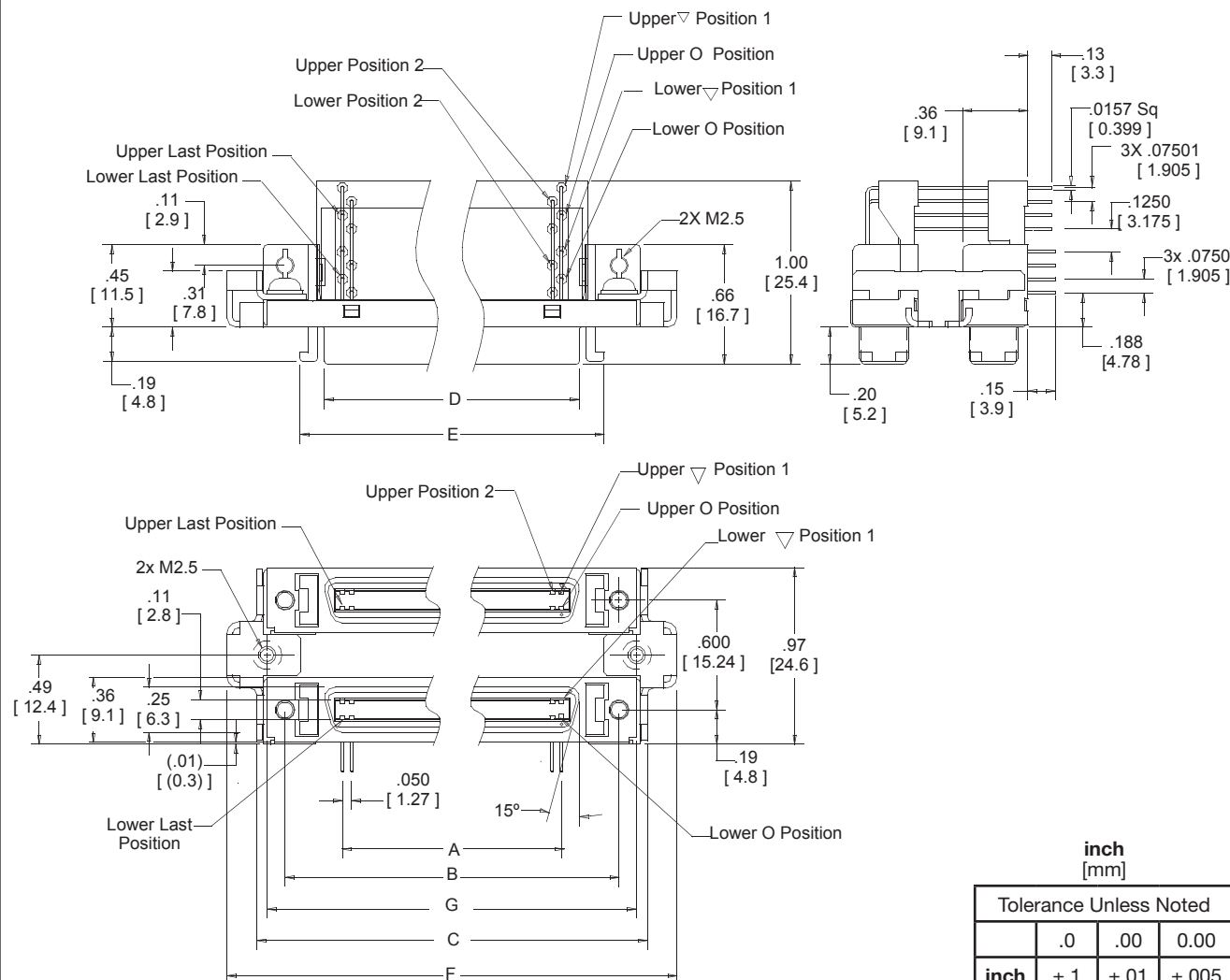
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| Contact Quantity | Dimensions    |               |             |             |             |             |              |
|------------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|
|                  | A             | B             | C           | D           | E           | F           | G            |
| 20               | 0.450 [11.43] | 1.08 [27.5]   | 1.41 [35.8] | 0.65 [16.4] | 0.92 [23.4] | 1.74 [44.2] | 1.276 [32.4] |
| 50               | 1.200 [30.48] | 1.831 [46.5]  | 2.17 [55.0] | 1.40 [35.5] | 1.67 [42.4] | 2.47 [62.7] | 2.03 [51.5]  |
| 68               | 1.650 [41.91] | 2.281 [57.93] | 2.61 [66.4] | 1.85 [46.9] | 2.12 [53.8] | 2.92 [74.1] | 2.48 [62.9]  |



inch  
[mm]

| Tolerance Unless Noted |     |      |       |
|------------------------|-----|------|-------|
|                        | .0  | .00  | 0.00  |
| inch                   | ±.1 | ±.01 | ±.005 |

[ ] Dimensions for  
Reference Only



## Ordering Information

**102XX - M218PE**

Contact Quantity: \_\_\_\_\_  
 20 - 2 × 20 = 40 Contacts  
 50 - 2 × 50 = 100 Contacts  
 68 - 2 × 68 = 136 Contacts

TS-0671-D  
Sheet 2 of 3



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# 3M™ Mini D Ribbon (MDR) Connectors

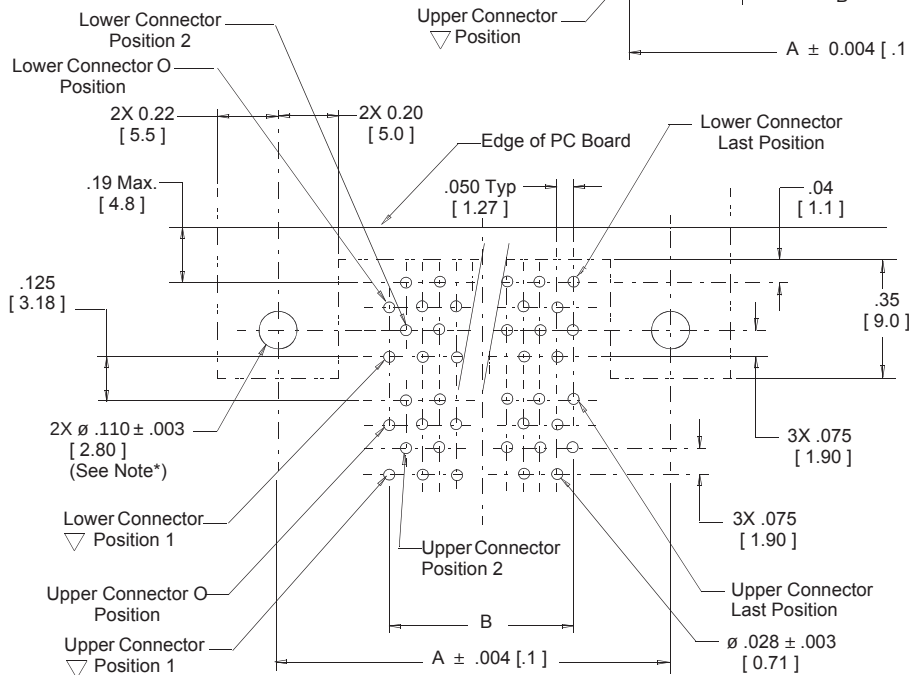
.050" Boardmount Through-Hole R. A. Condo Receptacle – Shielded

102 Series

| Contact Quantity | Dimensions         |                   |                   |                   |
|------------------|--------------------|-------------------|-------------------|-------------------|
|                  | A                  | B                 | C                 | D                 |
| 20               | 1.0814<br>[ 27.45] | 0.450<br>[ 11.43] | 0.94<br>[ 23.8]   | 1.276<br>[ 32.4]  |
| 50               | 1.831<br>[ 46.50]  | 1.831<br>[ 46.50] | 1.685<br>[ 42.80] | 2.026<br>[ 51.46] |
| 68               | 2.281<br>[ 57.93]  | 1.650<br>[ 41.91] | 2.134<br>[ 54.20] | 2.476<br>[ 62.89] |

## Recommended Board Layouts Viewed from Connector Sides

### 20 and 68 Position

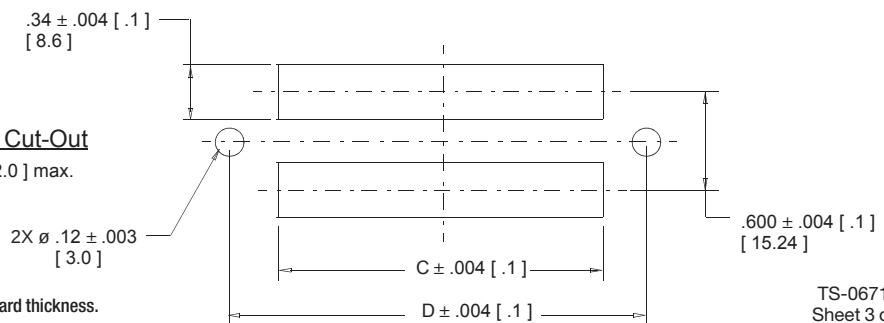


| Tolerance Unless Noted |     |      |       |
|------------------------|-----|------|-------|
|                        | .0  | .00  | 0.00  |
| inch                   | ±.1 | ±.01 | ±.005 |

[ ] Dimensions for Reference Only

### Recommended Panel Cut-Out

Panel thickness 0.079 [2.0] max.



Note: Plated-through mounting holes for .062 [1.57] board thickness.

TS-0671-D  
Sheet 3 of 3

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