

# 3M™ HDC Socket

.100" Right Angle, PCB, 3 or 4-Row, Solder Tail or Press-Fit

HDC Series



- High density 3-row version, up to 240 contacts single bay
- Mates with 3-row single plugs and headers
- High density 4-row version, up to 320 contacts single bay
- Mates with 4-row single plugs and headers
- Low 2 oz. insertion force
- RoHS\* compliant. See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: April 14, 2010

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## Physical

### Insulation:

Material: Glass Filled Thermoplastic (LCP)

Flammability: UL 94V-0

Color: Black

### Contact:

Material: Copper Alloy

### Plating:

Underplating: 50  $\mu$ " [ 1.27  $\mu$ m ] min. Nickel

Wiping Area: See Ordering Information

Termination Area: See Ordering Information

**Marking:** Part Number and Date Code

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## Electrical

**Current Rating:** 3.0 A per contact

**Insulation Resistance:**  $1 \times 10^3$  M $\Omega$  min. at 500 V<sub>DC</sub>

**Withstanding Voltage:** 900 V<sub>AC</sub> for 1 minute

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## Environmental

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

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

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

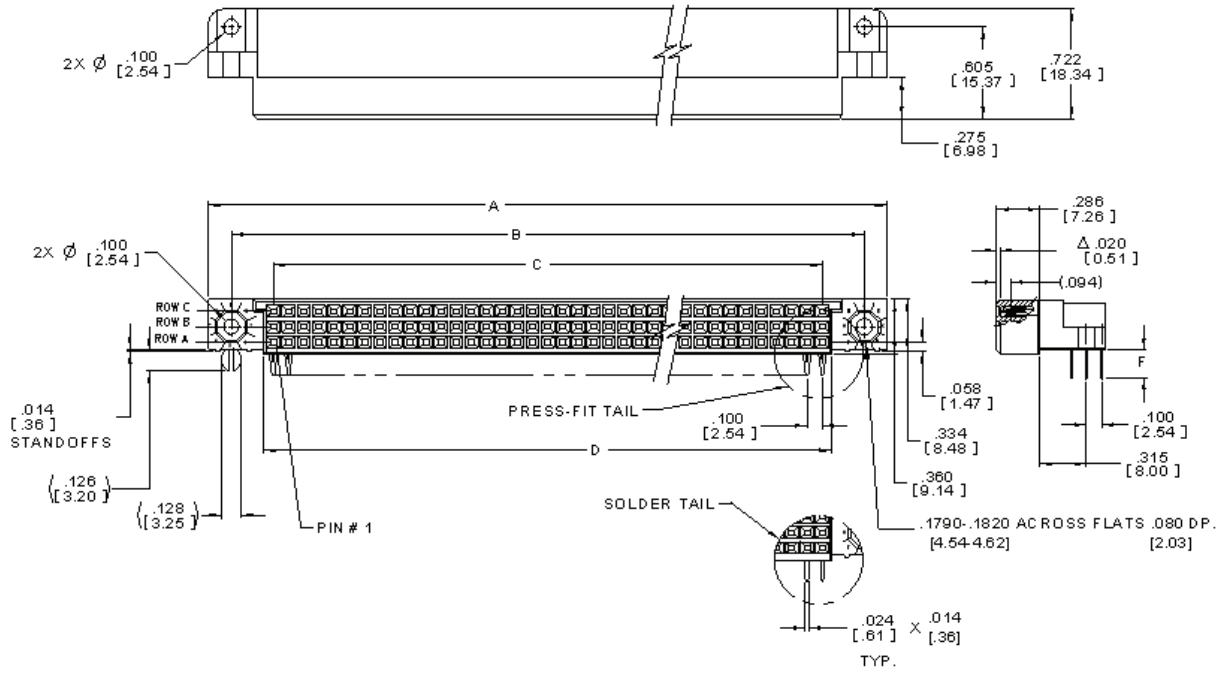
UL File No.: E68080

# 3M™ HDC Socket

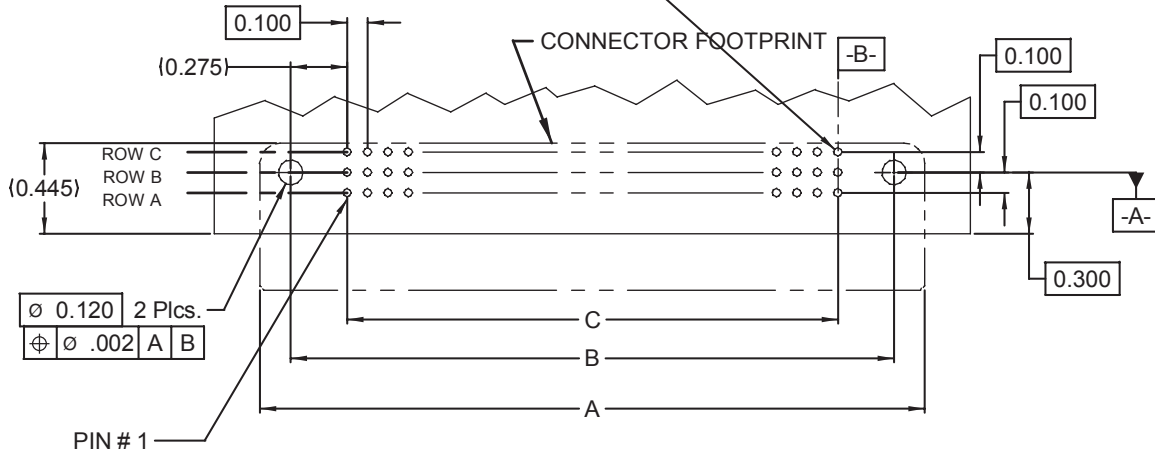
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## 3-Row Single Bay



$\varnothing$  0.041-0.049 PLATED-THRU HOLE, SOLDER TAIL  
 $\varnothing$  0.037-0.043 PLATED-THRU HOLE, PRESS-FIT TAIL  
 $\varnothing$  .004 M A B



### RECOMMENDED P.C.B. HOLE PATTERN

Inch  
[mm]

| Tolerance Unless Noted |     |      |       |
|------------------------|-----|------|-------|
|                        | .0  | .00  | .000  |
| Inch                   | ±.1 | ±.01 | ±.005 |

[ ] Dimensions for Reference only

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# 3M™ HDC Socket

.100" Right Angle, PCB, 3 or 4-Row, Solder Tail or Press-Fit

HDC Series

Product Table/Dimensions for 3- Row, Single Bay

| Description        | Contact Quantity | A                 | B                 | C                 | D                 |
|--------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| HDC-S045-31XX-XXXX | 45               | 2.250<br>[57.15]  | 1.950<br>[49.53]  | 1.400<br>[35.56]  | 1.524<br>[38.71]  |
| HDC-S075-31XX-XXXX | 75               | 3.250<br>[82.55]  | 2.950<br>[74.93]  | 2.400<br>[60.96]  | 2.524<br>[64.11]  |
| HDC-S090-31XX-XXXX | 90               | 3.750<br>[95.25]  | 3.450<br>[87.63]  | 2.900<br>[73.66]  | 3.024<br>[76.81]  |
| HDC-S096-31XX-XXXX | 96               | 3.950<br>[100.33] | 3.650<br>[92.71]  | 3.100<br>[78.74]  | 3.224<br>[81.89]  |
| HDC-S102-31XX-XXXX | 102              | 4.150<br>[105.41] | 3.850<br>[97.79]  | 3.300<br>[83.82]  | 3.424<br>[86.97]  |
| HDC-S120-31XX-XXXX | 120              | 4.750<br>[120.65] | 4.450<br>[113.03] | 3.900<br>[99.06]  | 4.024<br>[102.21] |
| HDC-S135-31XX-XXXX | 135              | 5.250<br>[133.35] | 4.950<br>[125.73] | 4.400<br>[111.76] | 4.524<br>[114.91] |
| HDC-S150-31XX-XXXX | 150              | 5.750<br>[146.05] | 5.450<br>[138.43] | 4.900<br>[124.46] | 5.024<br>[127.61] |
| HDC-S165-31XX-XXXX | 165              | 6.250<br>[158.75] | 5.950<br>[151.13] | 5.400<br>[137.16] | 5.524<br>[140.31] |
| HDC-S180-31XX-XXXX | 180              | 6.750<br>[171.45] | 6.450<br>[163.83] | 5.900<br>[149.86] | 6.024<br>[153.01] |
| HDC-S195-31XX-XXXX | 195              | 7.250<br>[184.15] | 6.950<br>[176.53] | 6.400<br>[162.56] | 6.524<br>[165.71] |
| HDC-S210-31XX-XXXX | 210              | 7.750<br>[196.85] | 7.450<br>[189.23] | 6.900<br>[175.26] | 7.024<br>[178.41] |
| HDC-S225-31XX-XXXX | 225              | 8.250<br>[209.55] | 7.950<br>[201.93] | 7.400<br>[187.96] | 7.524<br>[191.11] |
| HDC-S228-31XX-XXXX | 228              | 8.350<br>[212.09] | 8.050<br>[204.47] | 7.500<br>[190.50] | 7.624<br>[193.65] |
| HDC-S240-31XX-XXXX | 240              | 8.750<br>[222.25] | 8.450<br>[214.63] | 7.900<br>[200.66] | 8.024<br>[203.81] |

## Ordering Information

### HDC - SXXX - X1XX - XXXX

Contact Quantity  
See Contact Quantities  
on Product Table/  
Dimensions Charts

Row Quantity  
3 = Three Row  
4 = Four Row

Insulator Options  
1 = Single bay insulator

Termination Style / Lead length - Dim. F  
P1 - Press-fit Right Angle / 0.157 (4.00)  
S1 - Solder Right Angle / 0.110 (2.79)  
S2 - Solder Tail / 0.160 (4.06)

Plating  
Options:  
(See Plating  
Chart)

| Plating Chart  |                        |                          |  |
|----------------|------------------------|--------------------------|--|
| Plating Suffix | Press-Fit Terminations | Solder Tail Terminations | Plating composition  |
| TG30           | (RIA E2 & C2 apply)    | (RIA E3 & C2 apply)      | 30 µ" [0.76 µm] Min. Au Area 1<br>100 µ" [2.54 µm] Min. Tin Lead Tail Area 4<br>50 µ" [1.27 µm] Min. Ni all over                         |
| KR             | (RIA E1 & C1 apply)    | (RIA E1 & C1 apply)      | 30 µ" [0.76 µm] Min. Au on Area 1<br>100 µ" [2.54 µm] Min. Whisker Mitigating<br>Matte Tin on Area 4<br>50 µ" [1.27 µm] Min. Ni all over |

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# 3M™ HDC Socket

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HDC Series

## 4-Row Single Bay



RECOMMENDED P.C.B. HOLE PATTERN



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HDC Series

| Product Table/Dimensions for 4-Row Socket Single Bay |              |                   |                   |                   |                   |
|--|--------------|-------------------|-------------------|-------------------|-------------------|
| Description  | Pin Quantity | A                 | B                 | C                 | D                 |
| HDC-S060-41XX-XXXX                                   | 60           | 2.250<br>[57.15]  | 1.950<br>[49.53]  | 1.400<br>[49.53]  | 1.524<br>[38.71]  |
| HDC-S076-41XX-XXXX                                   | 76           | 2.650<br>[67.31]  | 2.350<br>[59.69]  | 1.800<br>[45.72]  | 1.924<br>[48.87]  |
| HDC-S080-41XX-XXXX                                   | 80           | 2.750<br>[69.85]  | 2.450<br>[62.23]  | 1.900<br>[48.26]  | 2.024<br>[51.41]  |
| HDC-S100-41XX-XXXX                                   | 100          | 3.250<br>[82.55]  | 2.950<br>[74.93]  | 2.400<br>[60.96]  | 2.524<br>[64.11]  |
| HDC-S120-41XX-XXXX                                   | 120          | 3.750<br>[95.25]  | 3.450<br>[87.63]  | 2.900<br>[73.66]  | 3.024<br>[76.81]  |
| HDC-S128-41XX-XXXX                                   | 128          | 3.950<br>[100.33] | 3.650<br>[92.71]  | 3.100<br>[78.74]  | 3.224<br>[81.89]  |
| HDC-S140-41XX-XXXX                                   | 140          | 4.250<br>[107.95] | 3.950<br>[100.33] | 3.400<br>[86.36]  | 3.524<br>[89.51]  |
| HDC-S160-41XX-XXXX                                   | 160          | 4.750<br>[120.65] | 4.450<br>[113.03] | 3.900<br>[99.06]  | 4.024<br>[102.21] |
| HDC-S168-41XX-XXXX                                   | 168          | 4.950<br>[125.73] | 4.650<br>[118.11] | 4.100<br>[104.14] | 4.224<br>[107.29] |
| HDC-S180-41XX-XXXX                                   | 180          | 5.250<br>[133.35] | 4.950<br>[125.73] | 4.400<br>[111.76] | 4.524<br>[114.91] |
| HDC-S200-41XX-XXXX                                   | 200          | 5.750<br>[146.05] | 5.450<br>[138.43] | 4.900<br>[124.46] | 5.024<br>[127.61] |
| HDC-S216-41XX-XXXX                                   | 216          | 6.150<br>[156.21] | 5.850<br>[148.59] | 5.300<br>[134.62] | 5.424<br>[137.77] |
| HDC-S220-41XX-XXXX                                   | 220          | 6.250<br>[158.75] | 5.950<br>[151.13] | 5.400<br>[137.16] | 5.524<br>[140.31] |
| HDC-S240-41XX-XXXX                                   | 240          | 6.750<br>[171.45] | 6.450<br>[163.83] | 5.900<br>[149.86] | 6.024<br>[153.01] |
| HDC-S260-41XX-XXXX                                   | 260          | 7.250<br>[184.15] | 6.950<br>[176.53] | 6.400<br>[162.56] | 6.524<br>[165.71] |
| HDC-S280-41XX-XXXX                                   | 280          | 7.750<br>[196.85] | 7.450<br>[189.23] | 6.900<br>[175.26] | 7.024<br>[178.41] |
| HDC-S300-41XX-XXXX                                   | 300          | 8.250<br>[209.55] | 7.950<br>[209.55] | 7.400<br>[187.96] | 7.524<br>[191.11] |
| HDC-S320-41XX-XXXX                                   | 320          | 8.750<br>[222.25] | 8.450<br>[214.63] | 7.900<br>[200.66] | 8.024<br>[203.81] |

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