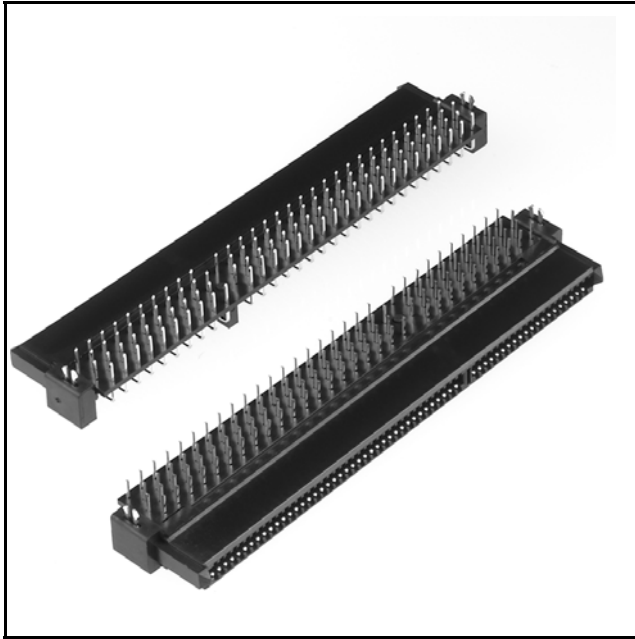


3M™ Pak 50 Boardmount Socket

.050" Straight and Right Angle Maxi-Mate

P50 Series



- High density connectors with up to 200 contacts
- Horizontal, parallel and vertical mating availability
- Insulator designed to prevent mating misalignment
- RoHS* compliant

Date Modified: December 11, 2006

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Sheet 1 of 5

Physical

Insulation

Material: Glass Filled Nylon
Flammability: UL 94V-0
Color: Black

Contact

Material: Phosphor Bronze

Plating

Underplating: Nickel
Wiping Area: 10 μ" [0.25 μm] Gold
Solder Tails: Gold Flash
Retaining Clips: Tin-Copper

Electrical

Current Rating: 0.5 A
Insulation Resistance: $10^3 \Omega$ at 500 V_{DC}
Withstanding Voltage: 650 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +85°C
Process Rating: 260°C (per J-STD-020C)

"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

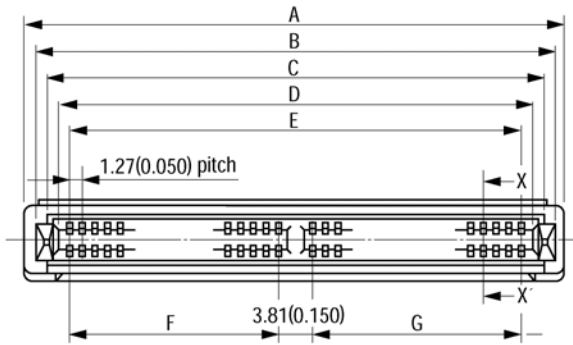
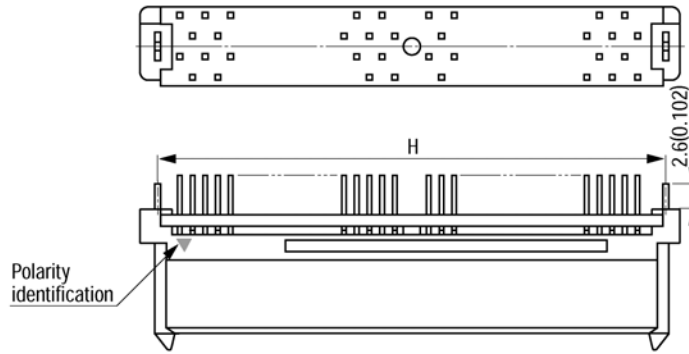
UL File No.: E68080

3M™ Pak 50 Boardmount Socket

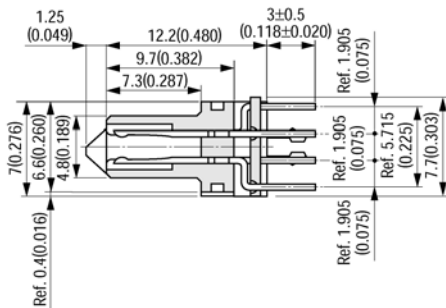
.050" Straight and Right Angle Maxi-Mate

P50 Series

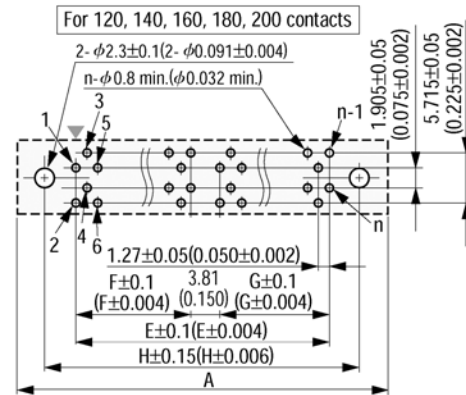
Straight without Flanges and with Retention Clips



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▼ = Polarity identification
 Recommended PCB Thickness $t = 1.6 \pm 0.19 (0.063 \pm 0.007)$
 "n" is number of contacts.

Ordering Information

P50 - XXXS - XXXX - EA

Contact Quantity
 See Table

Solder Tail, Flange and Clip Options:

- S1 = Straight, with Flanges, without Retention Clips
- SR1 = Right Angle, with Flanges, without Retention Clips
- R1 = Straight, without Flanges, with Retention Clips
- RR1 = Right Angle, without Flanges, with Retention Clips

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 Sheet 2 of 5

3M™ Pak 50 Boardmount Socket

.050" Straight and Right Angle Maxi-Mate

P50 Series

Product Table / Dimensions for Straight and Right Angle without Flanges and with Retention Clips

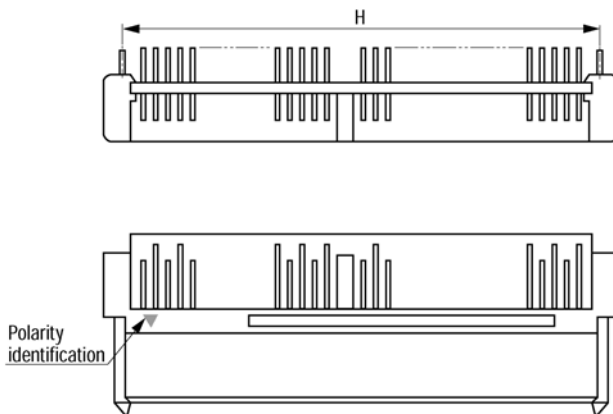
Contact Quantity	A	B	C	D	E	F	G	H
120	86.50	84.10	81.47	79.47	77.47	24.13	49.53	83.82
	[3.406]	[3.311]	[3.207]	[3.129]	[3.050]	[0.950]	[1.950]	[3.300]
140	99.20	96.80	94.17	92.17	90.17	24.13	62.23	96.52
	[3.906]	[3.811]	[3.707]	[3.629]	[3.550]	[0.950]	[2.450]	[3.800]
160	111.90	109.50	106.87	104.87	102.87	36.83	62.23	109.22
	[4.406]	[4.311]	[4.207]	[4.129]	[4.050]	[1.450]	[2.450]	[4.300]
180	124.60	122.20	119.57	117.57	115.57	49.53	62.23	121.92
	[4.906]	[4.811]	[4.707]	[4.629]	[4.550]	[1.950]	[2.450]	[4.800]
200	137.30	134.90	132.27	130.27	128.27	62.23	62.23	134.62
	[5.406]	[5.311]	[5.207]	[5.129]	[5.050]	[2.450]	[2.450]	[5.300]



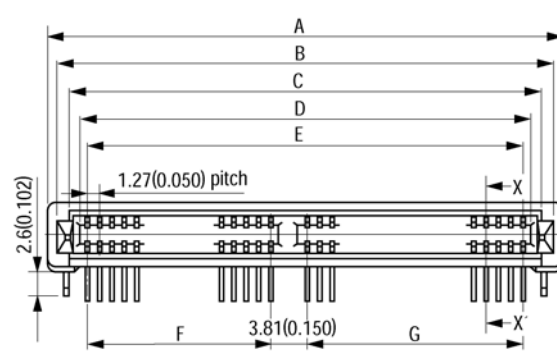
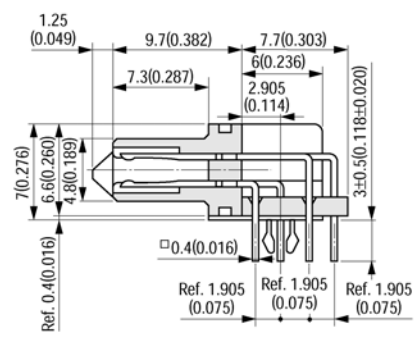
Note:

These connectors do not have a symmetrical board layout pattern. The 120 pin connectors have 80 pins on one side and 40 pins on the other. All other pin counts have 100 pins on one side and the balance on the other side.

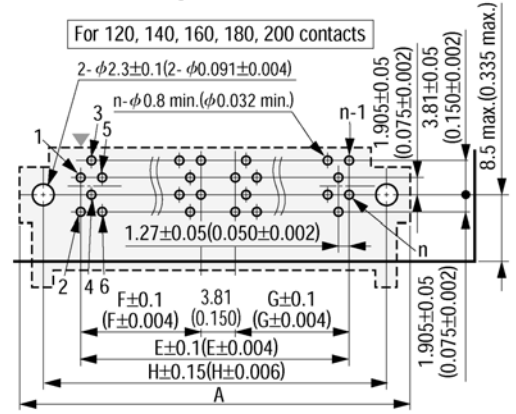
Right Angle without Flanges and with Retention Clips



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▽ = Polarity identification
 Recommended PCB Thickness $t = 1.6 \pm 0.19 (0.063 \pm 0.007)$
 "n" is number of contacts.

3M™ Pak 50 Boardmount Socket

.050" Straight and Right Angle Maxi-Mate

P50 Series

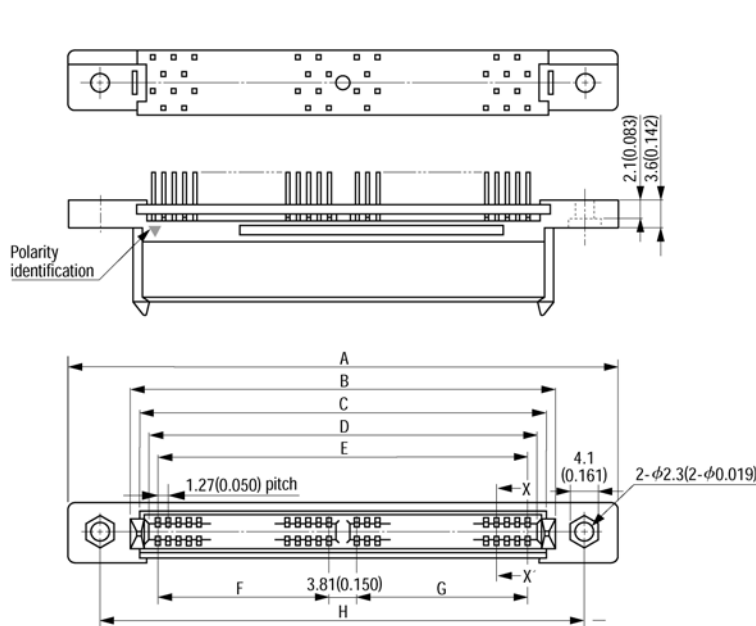
Product Table / Dimensions for Straight with Flanges and without Retention Clips

Contact Quantity	A	B	C	D	E	F	G	H
120	99.20 [3.906]	84.10 [3.311]	81.47 [3.207]	79.47 [3.129]	77.47 [3.050]	24.13 [0.950]	49.53 [1.950]	91.44 [3.600]
140	111.90 [4.406]	96.80 [3.811]	94.17 [3.707]	92.17 [3.629]	90.17 [3.550]	24.13 [0.950]	62.23 [2.450]	104.14 [4.100]
160	124.60 [4.906]	109.50 [4.311]	106.87 [4.207]	104.87 [4.129]	102.87 [4.050]	36.83 [1.450]	62.23 [2.450]	116.84 [4.600]
180	137.30 [5.406]	122.20 [4.811]	119.57 [4.707]	117.57 [4.629]	115.57 [4.550]	49.53 [1.950]	62.23 [2.450]	129.54 [5.100]
200	150.00 [5.906]	134.90 [5.311]	132.27 [5.207]	130.27 [5.129]	128.27 [5.050]	62.23 [2.450]	62.23 [2.450]	142.24 [5.600]

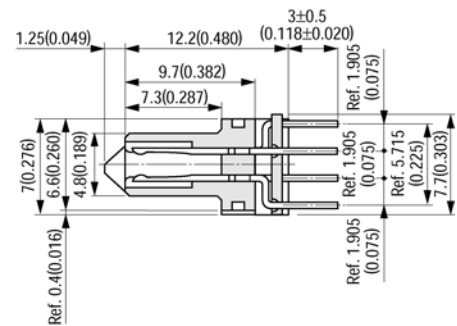
Note:

These connectors do not have a symmetrical board layout pattern. The 120 pin connectors have 80 pins on one side and 40 pins on the other. All other pin counts have 100 pins on one side and the balance on the other side.

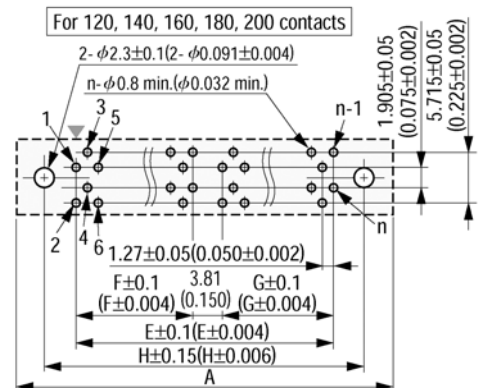
Straight with Flanges and without Retention Clips



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▼ = Polarity identification
 Recommended PCB Thickness t=1.6±0.19(0.063±0.007)
 "n" is number of contacts.

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3M™ Pak 50 Boardmount Socket

.050" Straight and Right Angle Maxi-Mate

P50 Series

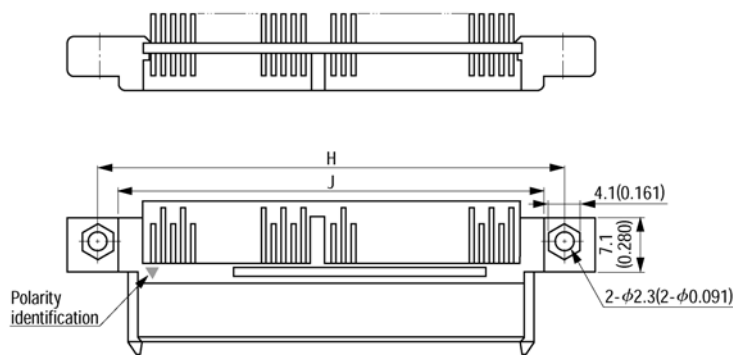
Product Table / Dimensions for Right Angle with Flanges and without Retention Clips

Contact Quantity	A	B	C	D	E	F	G	H	J
120	99.20	84.10	81.47	79.47	77.47	24.13	49.53	91.44	86.50
	[3.906]	[3.311]	[3.207]	[3.129]	[3.050]	[0.950]	[1.950]	[3.600]	[3.406]
140	111.90	96.80	94.17	92.17	90.17	24.13	62.23	104.14	99.20
	[4.406]	[3.811]	[3.707]	[3.629]	[3.550]	[0.950]	[2.450]	[4.100]	[3.906]
160	124.60	109.50	106.87	104.87	102.87	36.83	62.23	116.84	111.90
	[4.906]	[4.311]	[4.207]	[4.129]	[4.050]	[1.450]	[2.450]	[4.600]	[4.406]
180	137.30	122.20	119.57	117.57	115.57	49.53	62.23	129.54	124.60
	[5.406]	[4.811]	[4.707]	[4.629]	[4.550]	[1.950]	[2.450]	[5.100]	[4.906]
200	150.00	134.90	132.27	130.27	128.27	62.23	62.23	142.24	137.30
	[5.906]	[5.311]	[5.207]	[5.129]	[5.050]	[2.450]	[2.450]	[5.600]	[5.406]

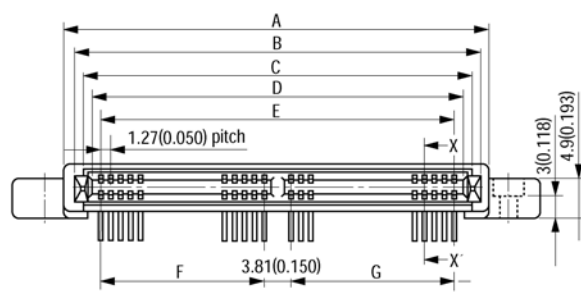
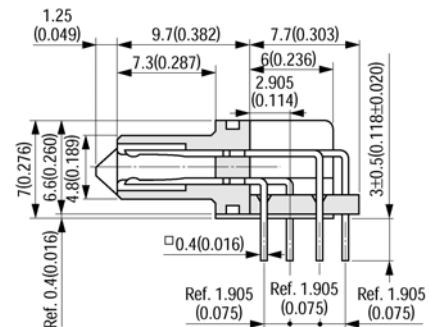
Note:

These connectors do not have a symmetrical board layout pattern. The 120 pin connectors have 80 pins on one side and 40 pins on the other. All other pin counts have 100 pins on one side and the balance on the other side.

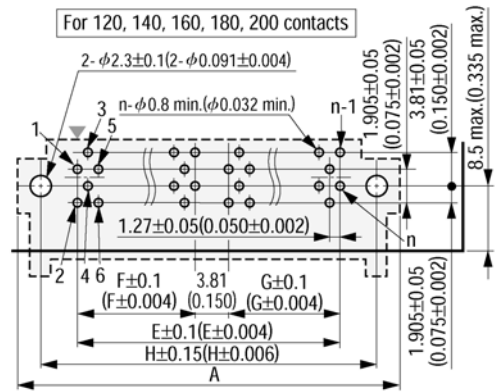
Right Angle with Flanges and without Retention Clips



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▽=Polarity identification
 Recommended PCB Thickness $t=1.6\pm0.19(0.063\pm0.007)$
 "n" is number of contacts.

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 Sheet 5 of 5

Important Notice

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Post-Consumer Fiber

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