

# 3M™ Pak 50 Power Ground Socket

.050" Straight and Right Angle Socket, with Power Ground Pin

P50 Series



- Power/ground contacts enable separation of power and signals
- EMLB power/ground contacts control static discharge and allow "hot board" replacement
- 2 amp power/ground contact rating for high current applications maximizes signal contact utilization
- 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 and C1 apply)

Date Modified: February 18, 2010

TS-2052-C  
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## Physical

### Insulator:

Material: Glass Filled Nylon

Flammability: UL 94V-0

Color: Black

Contact Material: Phosphor Bronze

### Plating:

Underplating: Nickel

Wiping Area: 10  $\mu$ " [.25  $\mu$ m] Gold

Solder Tails: Gold Flash

Retainer Clips: Tin-Copper

Mating Compatibility: TS-2051

## Electrical

**Current Rating:** 0.5 A per Signal Contact, 2 A per Power Contact

**Insulation Resistance:**  $> 1 \times 10^9 \Omega$  min. at 500 V<sub>DC</sub>

**Withstanding Voltage:** 650 V<sub>AC</sub> for 1 minute

## Environmental

**Temperature Rating:** -55°C to +85°C

**Process Rating:** 260°C Wave Solder Compatible

UL File No.: E68080

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**Product Table / Dimensions for Straight and Right Angle Sockets**

Contact Quantity	A	B	C	D
20	25.43 [1.001]	20.32 [0.800]	15.43 [0.607]	11.43 [0.450]
26	29.24 [1.151]	24.13 [0.950]	19.24 [0.757]	15.24 [0.600]
30	31.78 [1.251]	26.67 [1.050]	21.78 [0.857]	17.78 [0.700]
32	33.05 [1.301]	27.94 [1.100]	23.05 [0.907]	19.05 [0.750]
34	34.32 [1.351]	29.21 [1.150]	24.32 [0.957]	20.32 [0.800]
40	38.13 [1.501]	33.02 [1.300]	28.13 [1.107]	24.13 [0.950]

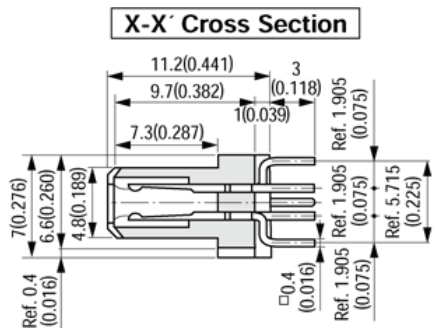
Contact Quantity	A	B	C	D
50	44.48 [1.751]	39.37 [1.550]	34.48 [1.357]	30.48 [1.200]
52	45.75 [1.801]	40.64 [1.593]	35.75 [1.407]	31.75 [1.250]
60	50.83 [2.001]	45.72 [1.800]	40.83 [1.607]	36.83 [1.450]
68	55.91 [2.201]	50.80 [2.000]	45.91 [1.807]	41.91 [1.650]
80	63.53 [2.501]	58.42 [2.300]	53.53 [2.107]	49.53 [1.950]
100	76.23 [3.001]	71.12 [2.800]	66.23 [2.607]	62.23 [2.450]

mm  
[Inch]

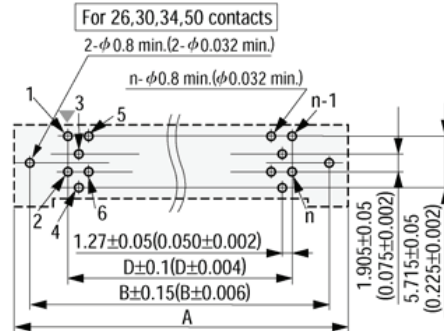
Tolerance Unless Noted	
mm	0.0
mm	± .1
mm	± .10

[ ] Dimensions used for Reference Only

## Straight



## 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.

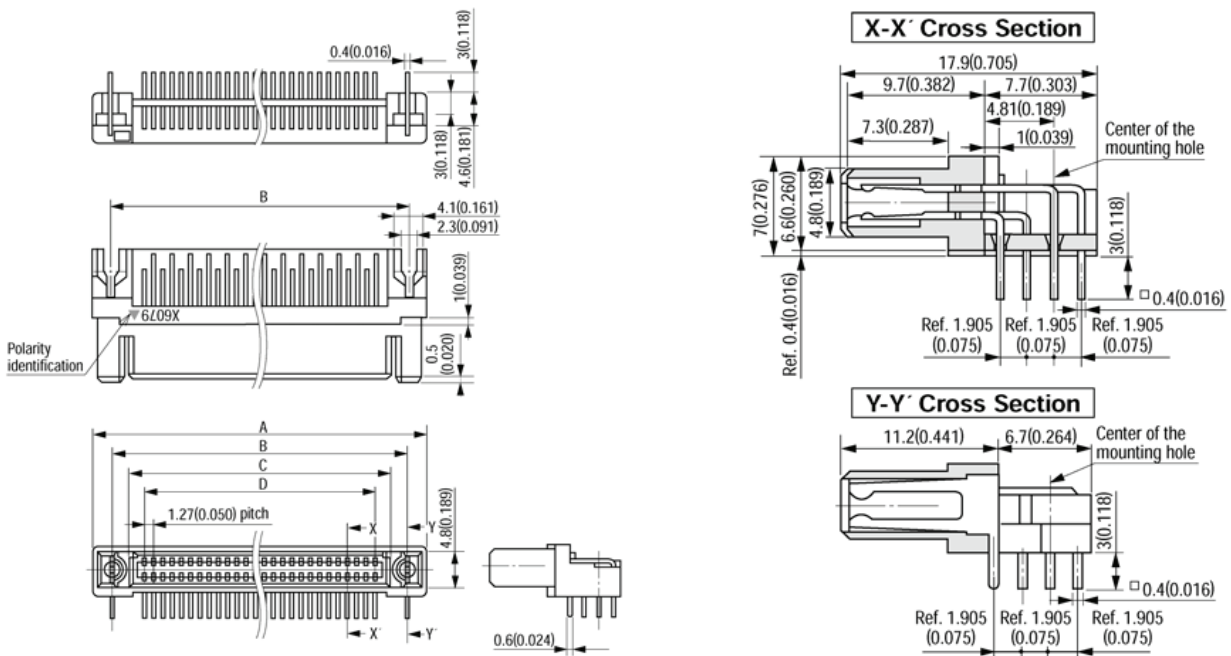
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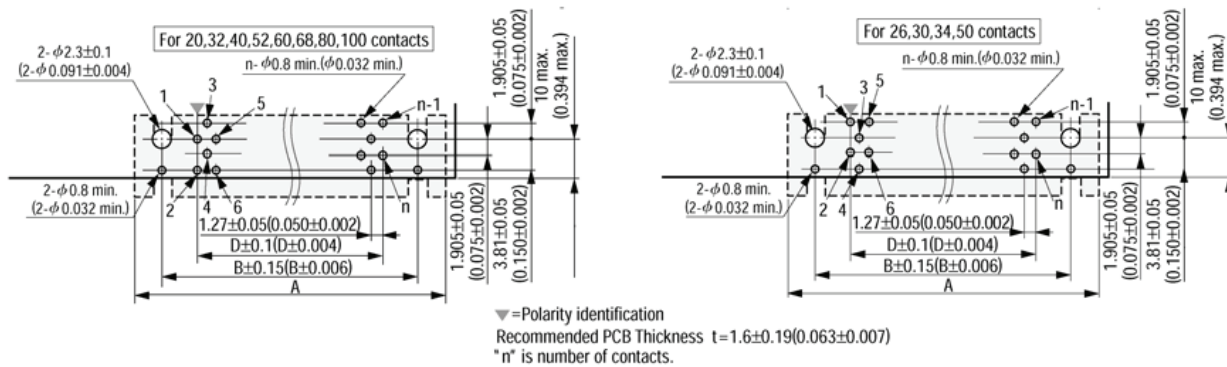
.050" Straight and Right Angle Socket, with Power Ground Pin

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## Right Angle



## Printed Circuit Board Layout (Component Side View)



## Ordering Information

**P50 - XXX SG - XXX - EA** (RIA E1 and C1 apply)

Contact Quantity:  
See Table

Solder Tail Options:  
S1 = Straight  
SR1 = Right Angle

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