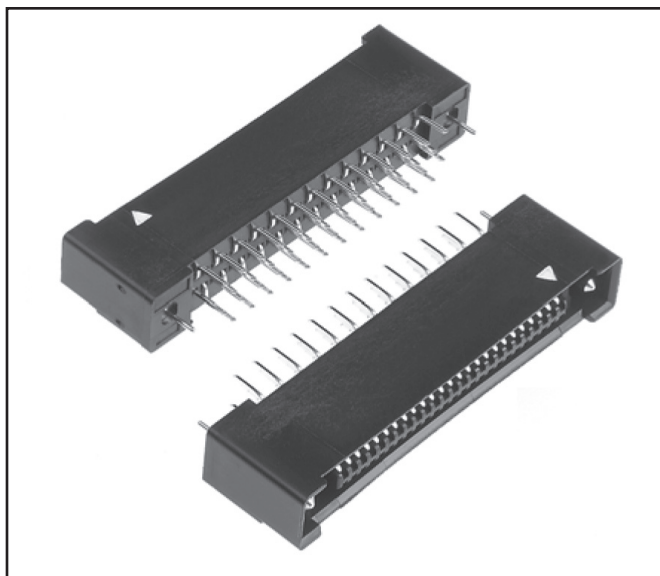


3M™ Pak 50 Plug

.050" Straight and Right Angle Plug, 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 for compliance information (RIA E1 and C1 apply)

Date Modified: February 18, 2010

TS-2051-C
Sheet 1 of 3

Physical

Insulator:

Material: Glass Filled Nylon

Flammability: UL 94V-0

Color: Black

Contact Material: Phosphor Bronze

Plating:

Underplating: Nickel

Wiping Area: 10 μ " [.25 μ m] Gold

Solder Tails: Gold Flash

Retainer Clips: Tin-Copper

Mating Compatibility: TS-2052

Electrical

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

Insulation Resistance: $> 1 \times 10^9 \Omega$ at 500 V_{DC}

Withstanding Voltage: 650 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +85°C

Process Rating: 260°C Wave Solder Compatible

UL File No.: E68080



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3M™ Pak 50 Plug

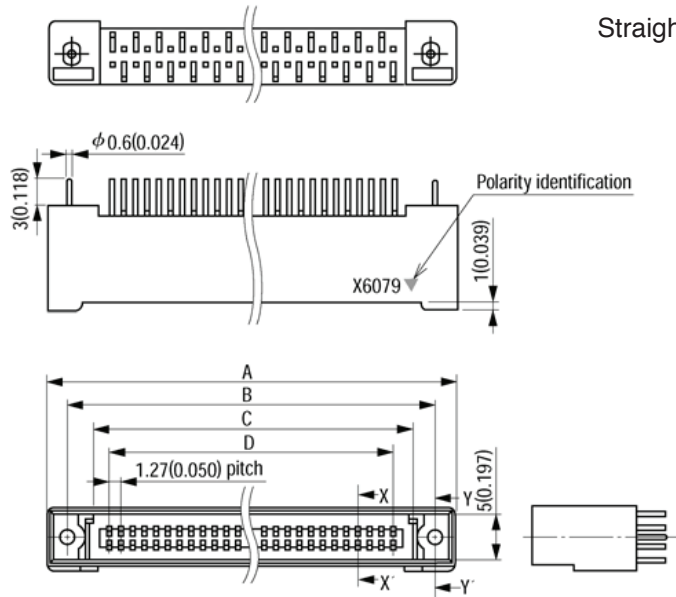
.050" Straight and Right Angle Plug, with Power Ground Pin

P50 Series

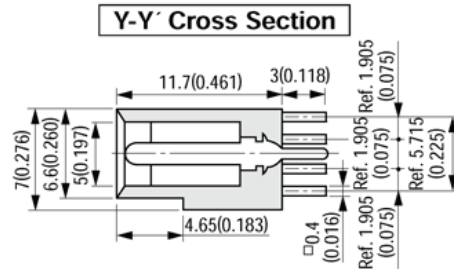
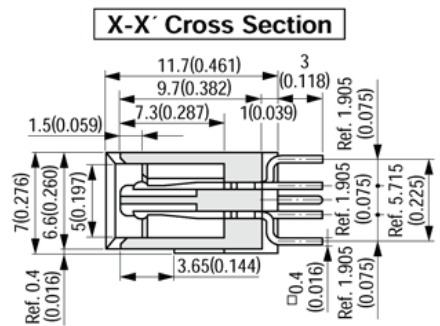
Product Table / Dimensions for Straight and Right Angle Plugs

Contact Quantity	A	B	C	D
20	25.43 [1.001]	20.32 [0.800]	15.83 [0.623]	11.43 [0.450]
26	29.24 [1.151]	24.13 [0.950]	19.64 [0.773]	15.24 [0.600]
30	31.78 [1.251]	26.67 [1.050]	22.18 [0.873]	17.78 [0.700]
32	33.05 [1.301]	27.94 [1.100]	23.45 [0.923]	19.05 [0.750]
34	34.32 [1.351]	29.21 [1.150]	24.72 [0.973]	20.32 [0.800]
40	38.13 [1.501]	33.02 [1.300]	28.53 [1.123]	24.13 [0.950]

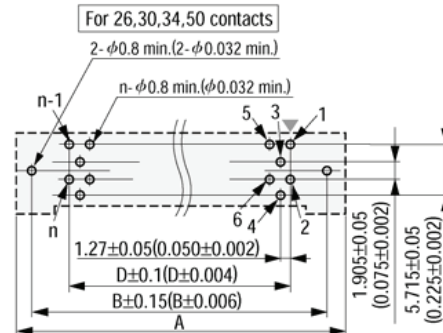
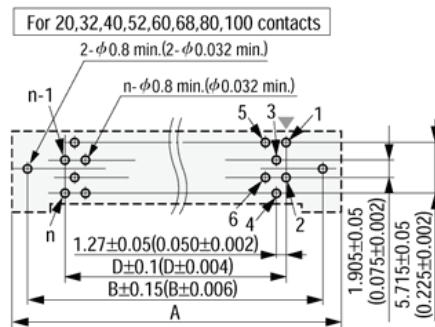
Contact Quantity	A	B	C	D
50	44.48 [1.751]	39.37 [1.550]	34.88 [1.373]	30.48 [1.200]
52	45.75 [1.801]	40.64 [1.593]	36.15 [1.423]	31.75 [1.250]
60	50.83 [2.001]	45.72 [1.800]	41.23 [1.623]	36.83 [1.450]
68	55.91 [2.201]	50.8 [2.000]	46.31 [1.823]	41.91 [1.650]
80	63.53 [2.501]	58.42 [2.300]	53.93 [2.123]	49.53 [1.950]
100	76.23 [3.001]	71.12 [2.800]	66.63 [2.623]	62.23 [2.450]



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.

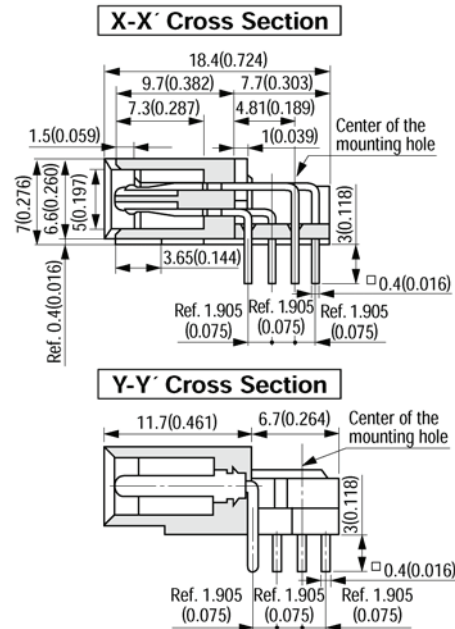
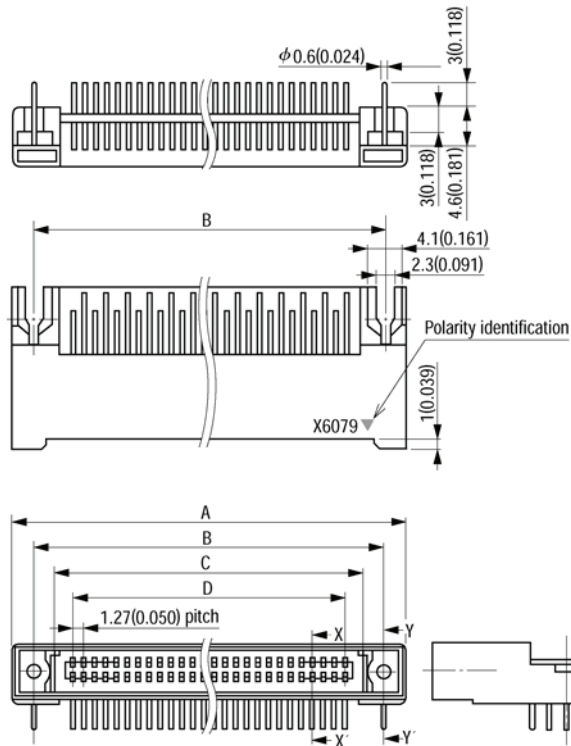
TS-2051-C
Sheet 2 of 3

3M™ Pak 50 Plug

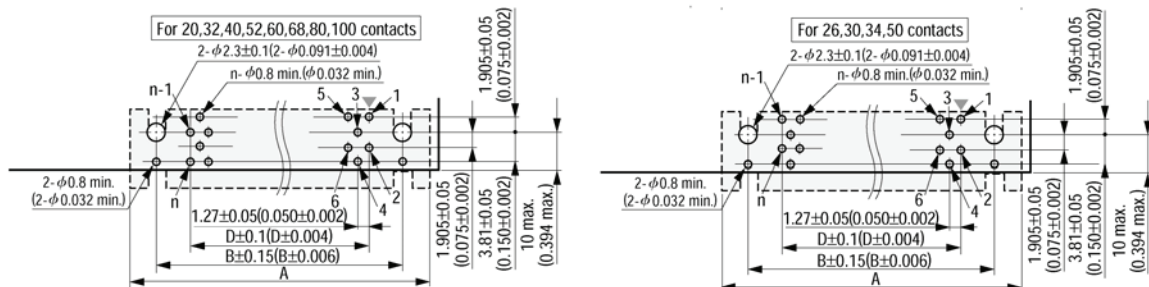
.050" Straight and Right Angle Plug, with Power Ground Pin

P50 Series

Right Angle



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 - XXXPG - XXX - EA (RIA E1 and C1 apply)

Contact Quantity:
See Table

Solder Tail Options::
S1 = Straight
SR1 = Right Angle

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Sheet 3 of 3

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