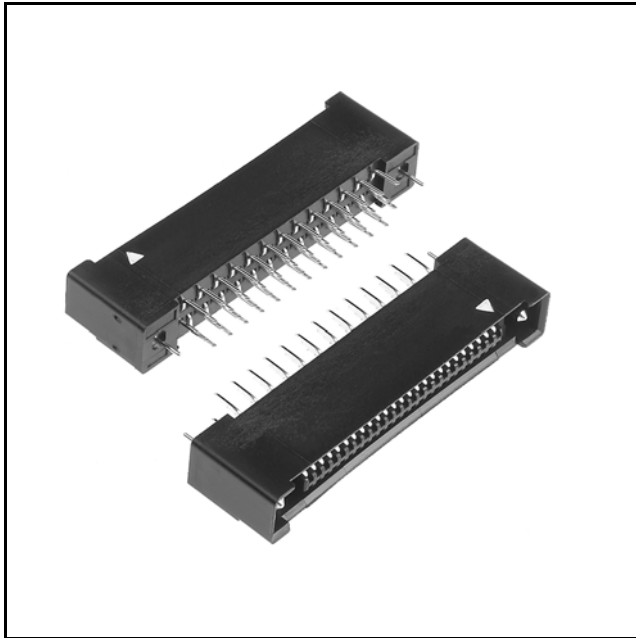


# 3M™ Pak 50 Plug

.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\* version (EA plating suffix) available

Date Modified: May 15, 2006

TS-2051-03  
Sheet 1 of 3

## Physical

### Insulation

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: Tin Alloy over Nickel or Gold Flash (RoHS compliant)(see ordering information)  
Retainer Clips: Tin Lead or Tin-Copper (RoHS compliant)

## Electrical

**Current Rating:** 0.5 A per Signal Contact, 2 A per Power Contact  
**Insulation Resistance:** 10<sup>3</sup> M $\Omega$  min. at 500 V DC  
**Withstanding Voltage:** 650 VAC 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 in writing by 3M, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

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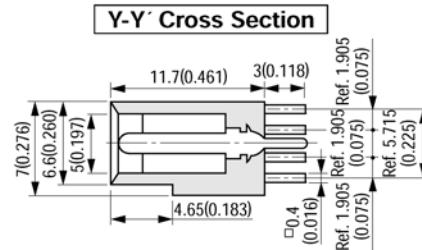
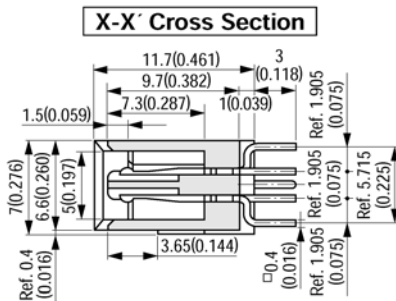
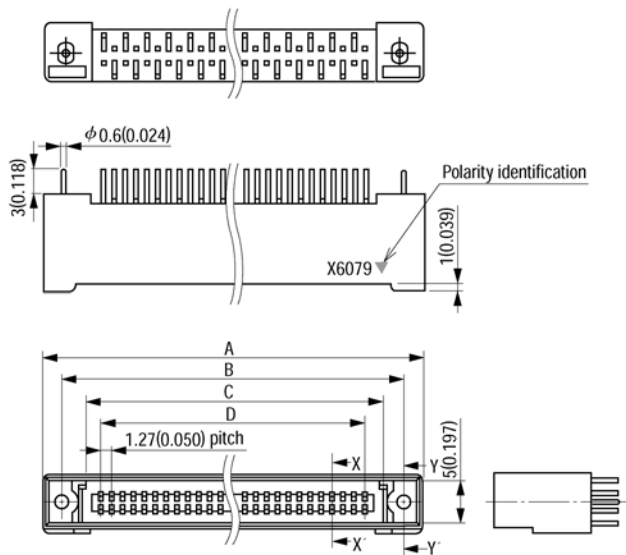
P50 Series

Product Table / Dimensions for Straight and Right Angle Plugs

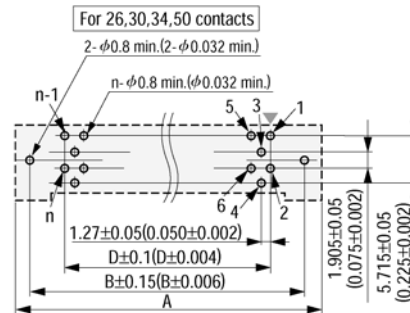
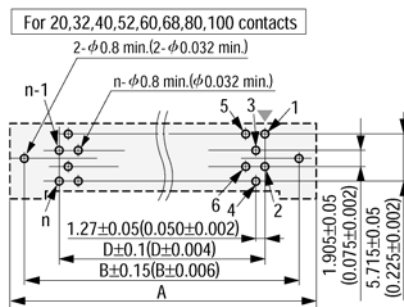
Contact Quantity	A	B	C	D
20	25.43	20.32	15.83	11.43
	[1.001]	[0.800]	[0.623]	[0.450]
26	29.24	24.13	19.64	15.24
	[1.151]	[0.950]	[0.773]	[0.600]
30	31.78	26.67	22.18	17.78
	[1.251]	[1.050]	[0.873]	[0.700]
32	33.05	27.94	23.45	19.05
	[1.301]	[1.100]	[0.923]	[0.750]
34	34.32	29.21	24.72	20.32
	[1.351]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

Contact Quantity	A	B	C	D
50	44.48	39.37	34.88	30.48
	[1.751]	[1.550]	[1.373]	[1.200]
52	45.75	40.64	36.15	31.75
	[1.801]	[1.593]	[1.423]	[1.250]
60	50.83	45.72	41.23	36.83
	[2.001]	[1.800]	[1.623]	[1.450]
68	55.91	50.80	46.31	41.91
	[2.201]	[2.000]	[1.823]	[1.650]
80	63.53	58.42	53.93	49.53
	[2.501]	[2.300]	[2.123]	[1.950]
100	76.23	71.12	66.63	62.23
	[3.001]	[2.800]	[2.623]	[2.450]

Straight



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.

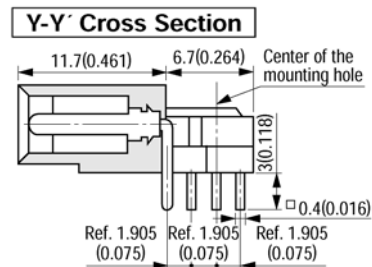
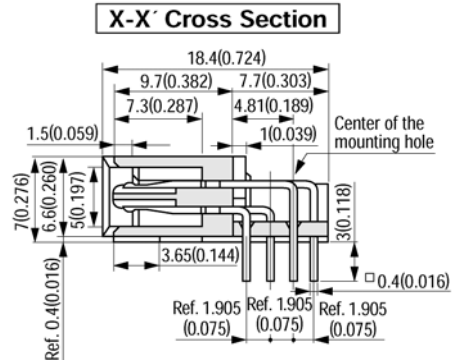
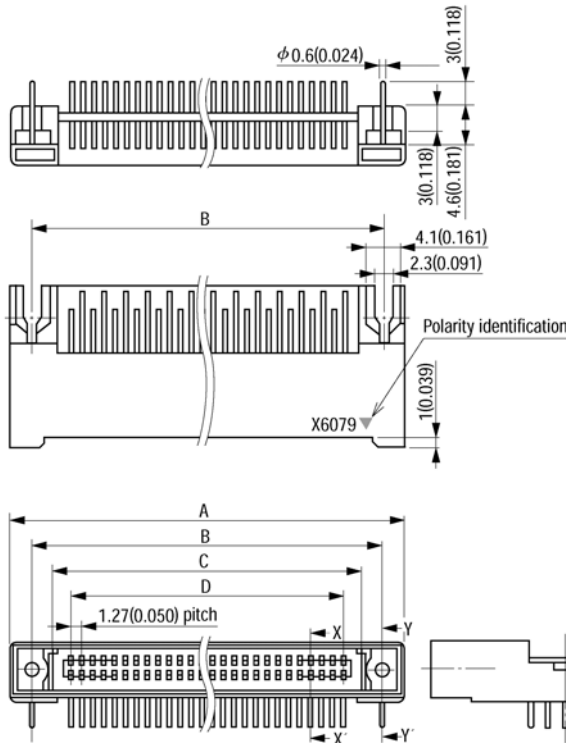
TS-2051-03  
 Sheet 2 of 3

# 3M™ Pak 50 Plug

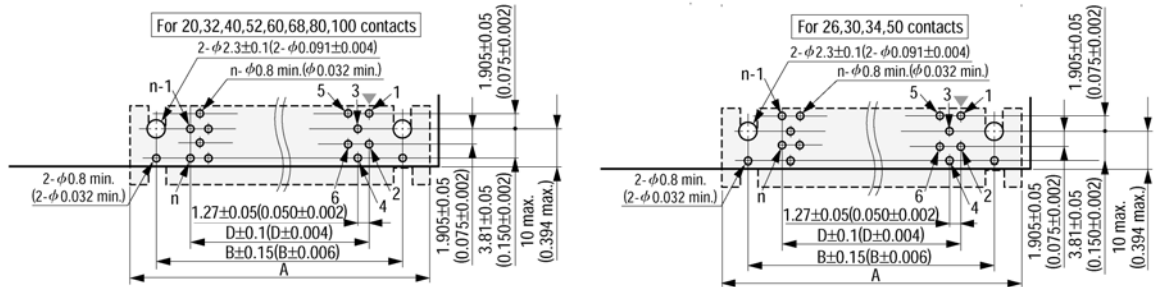
.050" Straight and Right Angle Plug, with Power Ground Pin

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 - XXX**

Contact Quantity  
 (See Table)

Solder Tail Options:  
 S1 = Straight  
 SR1 = Right Angle

Plating Options:  
 TG = 10 u" [.25 μm] Gold with tin-lead tails  
 EA = 10 u" [.25 μm] Gold with Gold Flash tails (RoHS compliant)

TS-2051-03  
 Sheet 3 of 3

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