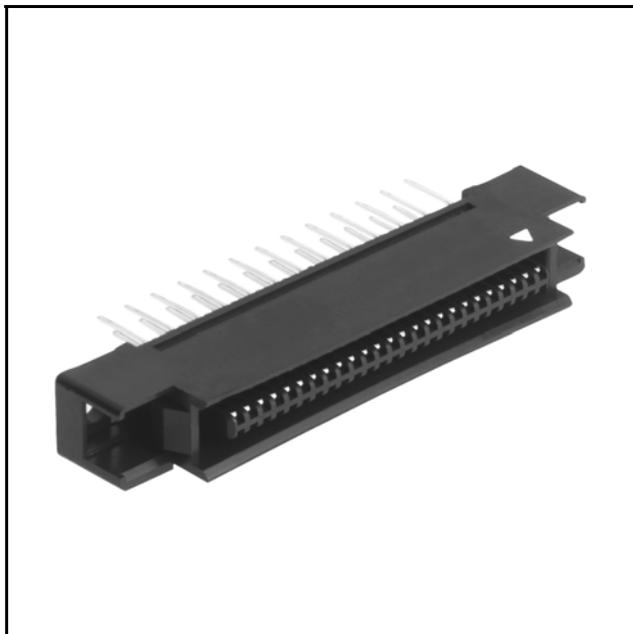


# 3M™ Pak 50 Boardmount Plug

.050" Straight and Right Angle, Through-Hole

P50E Series



- P50E Plug offers straight and right angle through-hole options
- Right angle P50E Plug comes with and without retention clips
- Latch/eject mechanism maintains a secure connection
- Mates to the P50E wiremount socket
- RoHS\* compliant

Date Modified: December 13, 2006

TS-1144-03  
Sheet 1 of 3

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## Physical

### Insulation

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

### Contact

Material: Copper Alloy

### Plating

Underplating: Nickel  
Wiping Area: 10  $\mu$ " [ 0.25  $\mu$ m ] Gold  
Solder Tails: Gold Flash  
Retention Clips: Tin-Copper

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## Electrical

**Current Rating:** 0.5 A  
**Insulation Resistance:**  $10^3 \Omega$  at 500 V<sub>DC</sub>  
**Withstanding Voltage:** 650 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C  
**Process Rating:** 260°C (ref 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.

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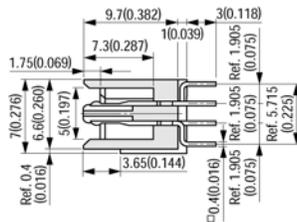
P50E Series

Product Table / Dimensions (For Straight and Right Angle)

Contact Quantity	A	B	C	D
20	27.83	22.86	15.83	11.43
	[1.096]	[0.900]	[0.623]	[0.450]
26	31.64	26.67	19.64	15.24
	[1.246]	[1.050]	[0.773]	[0.600]
30	34.18	29.21	22.18	17.78
	[1.346]	[1.150]	[0.873]	[0.700]
32	35.45	30.48	23.45	19.05
	[1.396]	[1.200]	[0.923]	[0.750]
34	36.72	31.75	24.72	20.32
	[1.446]	[1.250]	[0.973]	[0.800]
40	40.53	35.56	28.53	24.13
	[1.596]	[1.400]	[1.123]	[0.950]

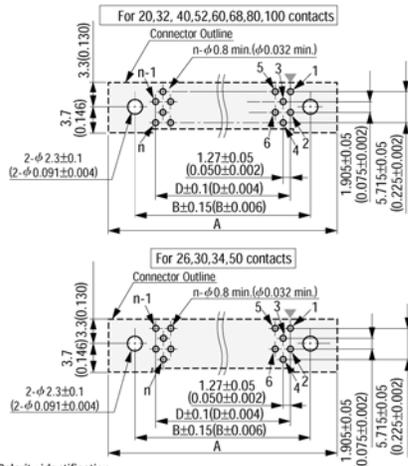
Contact Quantity	A	B	C	D
50	46.88	41.91	34.88	30.48
	[1.846]	[1.650]	[1.373]	[1.200]
52	48.15	43.18	36.15	31.75
	[1.896]	[1.700]	[1.423]	[1.250]
60	53.23	48.26	41.23	36.83
	[2.096]	[1.900]	[1.623]	[1.450]
68	58.31	53.34	46.31	41.91
	[2.296]	[2.100]	[1.823]	[1.650]
80	65.93	60.96	53.93	49.53
	[2.596]	[2.400]	[2.123]	[1.950]
100	78.63	73.66	66.63	62.23
	[3.096]	[2.900]	[2.623]	[2.450]

X-X' Cross Section

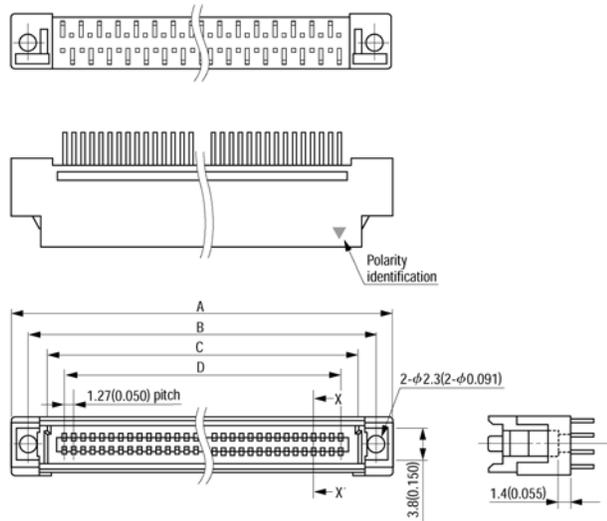


Straight Plug

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

**P50E - XXXP1 - XXX - EA**

Contact Quantity  
 See Table

Solder Tail/Clip Options:  
 S1 = Straight tails, without Retention Clips  
 SR1 = Right angle tails, without Retention Clips  
 RR1 = Right angle tails, with Retention Clips

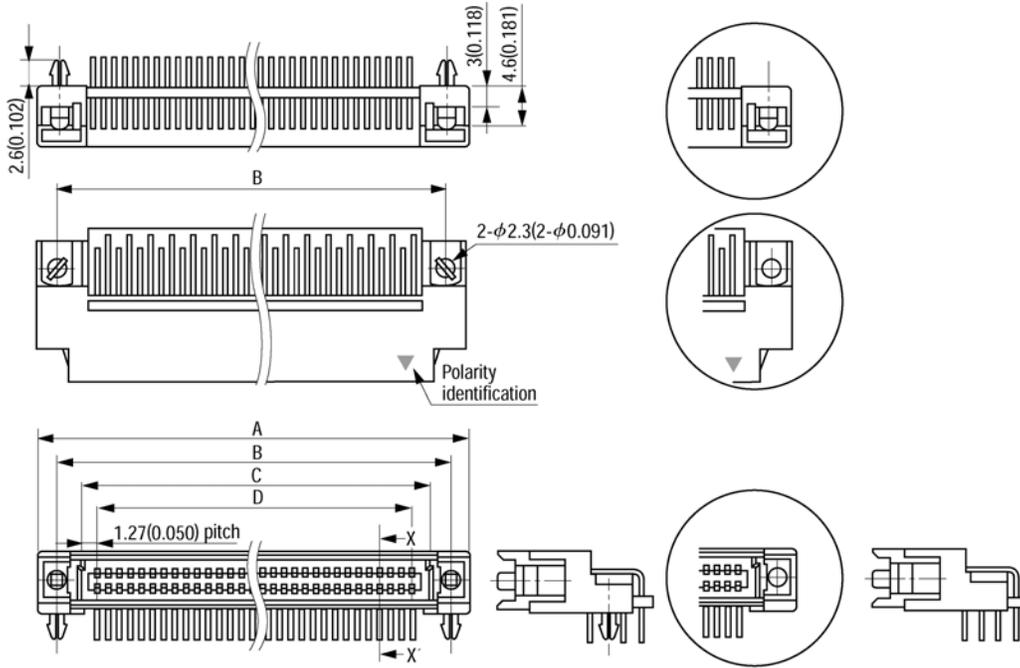
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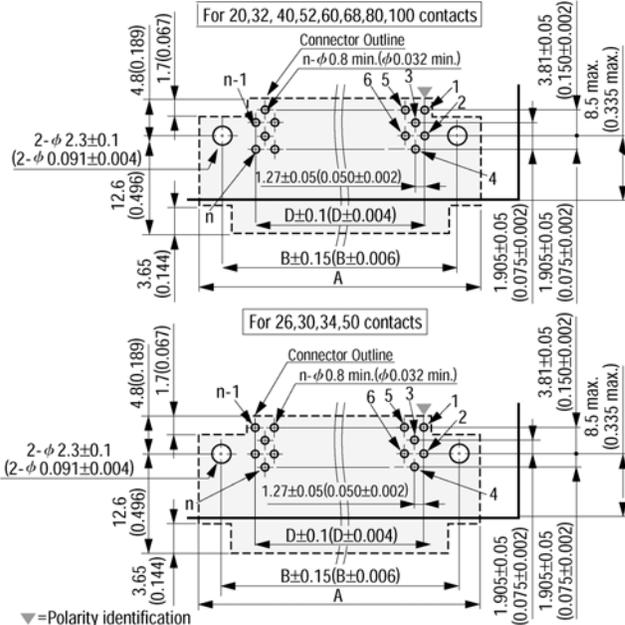
P50E Series

Right Angle Plug with Retention Clips

Right Angle Plug without Retention Clips

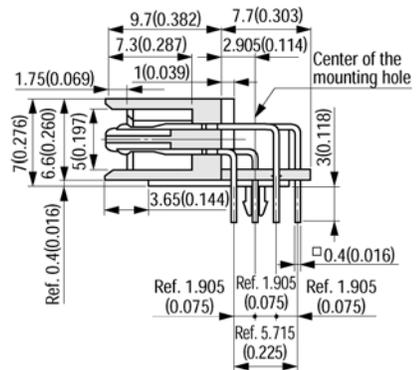


## Printed Circuit Board Layout (Component Side View)



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

## X-X' Cross Section



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Minimum 10%  
Post-Consumer Fiber

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