

3M™ Pak 50 Low Profile Plug

.050" Plug, (1.27) Straight, Right Angle and SMT, Low Profile

P50LE Series



- Latch/eject mechanism maintains a secure connection
- Low profile 11.8 mm mated height when using the surfacemount version
- Mates to the P25LE wiremount socket
- RoHS* compliant

Date Modified: December 15, 2006

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Physical

Insulation

Material: Glass Filled PPS
Flammability: UL 94V-0
Color: Brown

Contact

Material: Phosphor Bronze

Plating

Underplating: Nickel
Wiping Area: Gold Flash
Solder Tails: Gold Flash
Retainer Clips: Tin-Copper

Electrical

Current Rating: 0.5 A
Insulation Resistance: $10^3 \Omega$ at 250 V_{DC}
Withstanding Voltage: 300 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 in writing by 3M, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

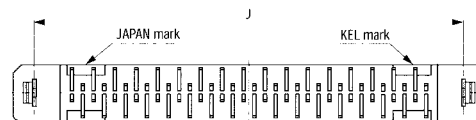
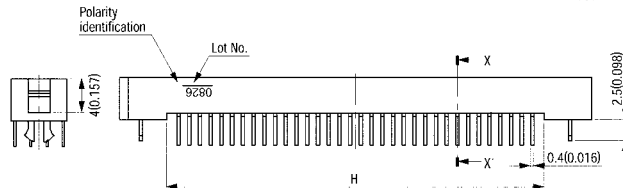
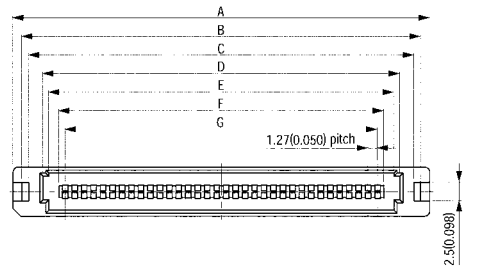
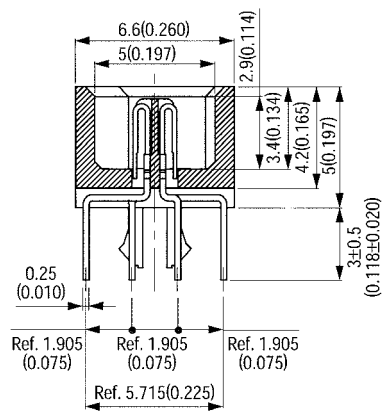
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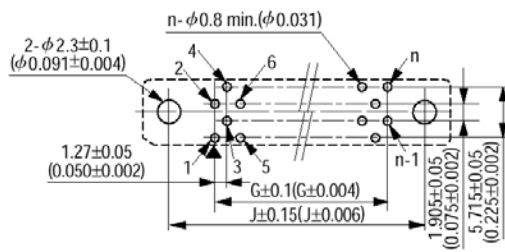
Straight Plug (Through Hole Solder Tails)

X-X' Cross Section

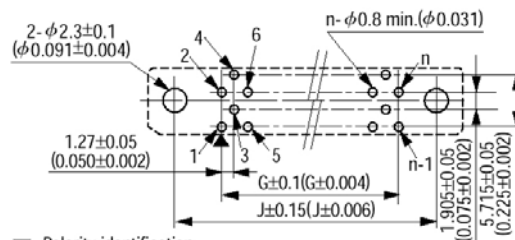


Printed Circuit Board Layout (Component Side View)

For 20,40,60,68,80,100 contacts



For 30,50 contacts



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

Ordering Information

P50LE-XXXXP1-XXX-DA

Contact Quantity
See Table

Solder Tail Options:
R1 = Straight/ .118" (3.0) Through hole
RR1 = Right Angle/ .118" (3.0) Through hole
SML = Verticle Surface Mount

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3M™ Pak 50 Low Profile Plug

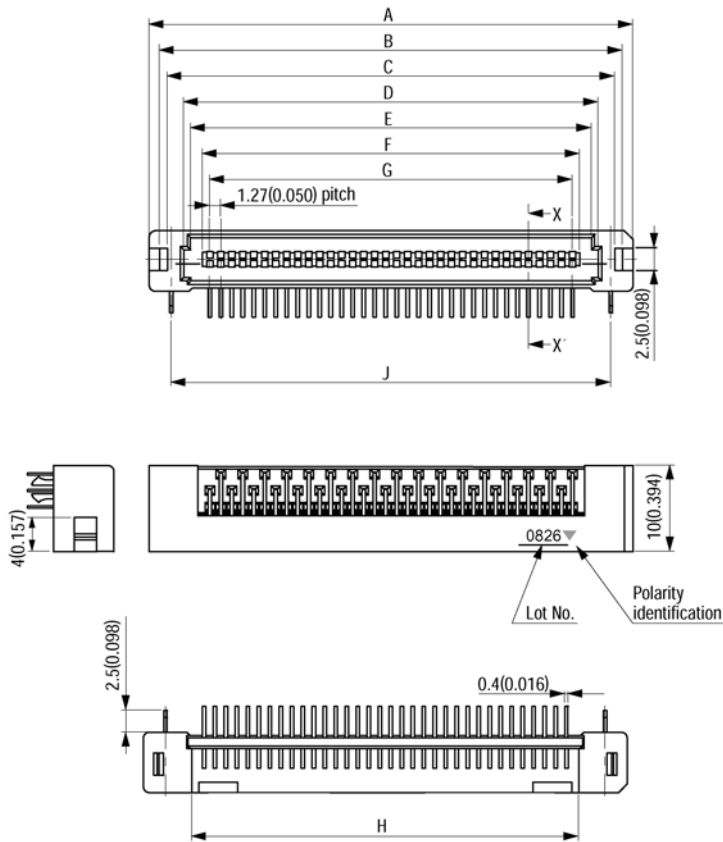
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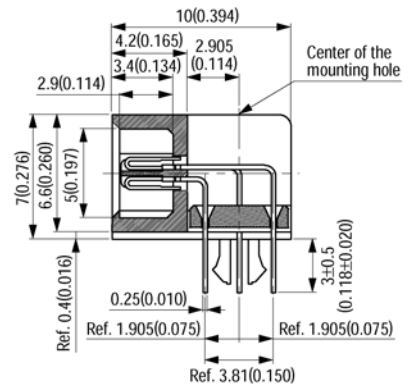
Product Table / Dimensions for Straight and Right Angle Thru-hole Plug

Contact Quantity	A	B	C	D	E	F	G	H	J
20	25.43	23.03	21.23	17.43	15.83	13.13	11.43	14.23	20.32
	[1.001]	[0.906]	[0.836]	[0.686]	[0.623]	[0.517]	[0.450]	[0.560]	[0.800]
30	31.78	29.38	27.58	23.78	22.18	19.48	17.78	20.58	26.67
	[1.251]	[1.157]	[1.086]	[0.936]	[0.873]	[0.767]	[0.700]	[0.810]	[1.050]
40	38.13	35.73	33.93	30.13	28.53	25.83	24.13	26.93	33.02
	[1.501]	[1.407]	[1.336]	[1.186]	[1.123]	[1.017]	[0.950]	[1.060]	[1.300]
50	44.48	42.08	40.28	36.48	34.88	32.18	30.48	33.28	39.37
	[1.751]	[1.657]	[1.586]	[1.436]	[1.373]	[1.267]	[1.200]	[1.310]	[1.550]
60	50.83	48.43	46.63	42.83	41.23	38.53	36.83	39.63	45.72
	[2.001]	[1.907]	[1.836]	[1.686]	[1.623]	[1.517]	[1.450]	[1.560]	[1.800]
68	55.91	53.51	51.71	47.91	46.31	43.61	41.91	44.71	50.80
	[2.201]	[2.107]	[2.036]	[1.886]	[1.823]	[1.717]	[1.650]	[1.760]	[2.000]
80	63.53	61.13	59.33	55.53	53.93	51.23	49.53	52.33	58.42
	[2.501]	[2.407]	[2.336]	[2.186]	[2.123]	[2.017]	[1.950]	[2.060]	[2.300]
100	76.23	73.83	72.03	68.23	66.63	63.93	62.23	65.03	71.12
	[3.001]	[2.907]	[2.836]	[2.686]	[2.623]	[2.517]	[2.450]	[2.560]	[2.800]

Right Angle Plug (Thru-Hole Solder Tails)

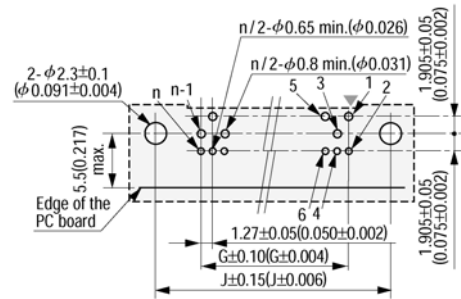


X-X' Cross Section

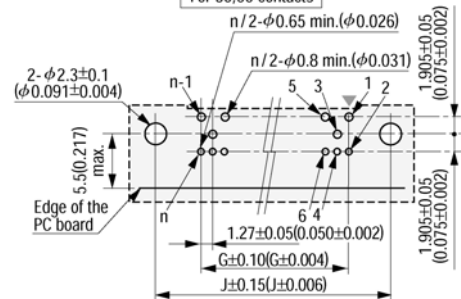


Printed Circuit Board Layout (Component Side View)

For 20,40,60,68,80,100 contacts



For 30,50 contacts



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

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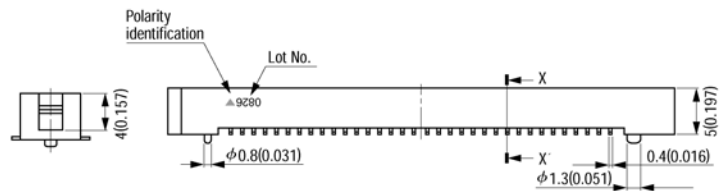
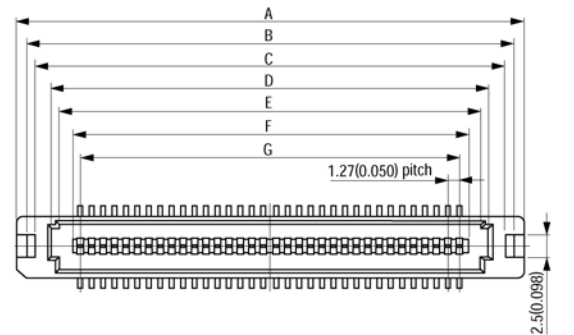
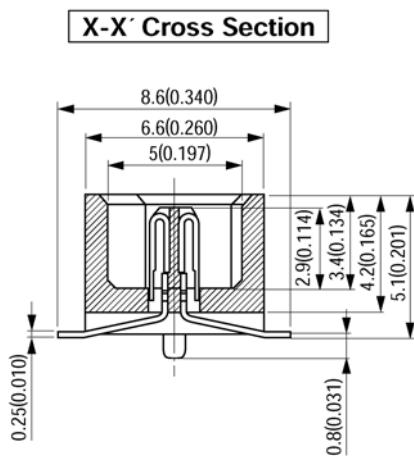
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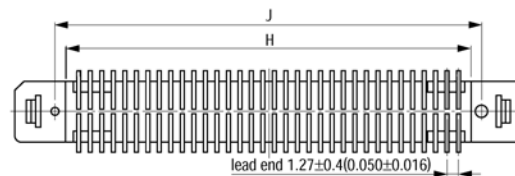
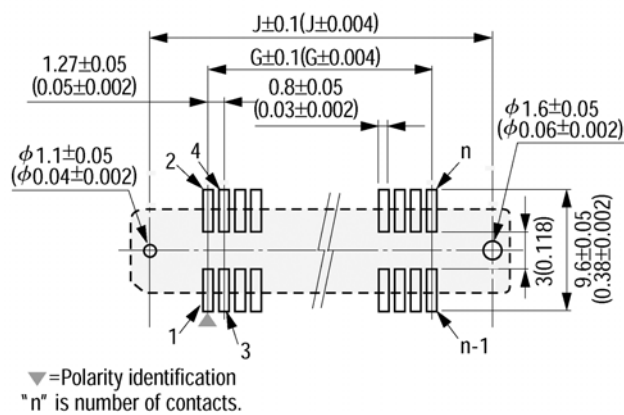
Product Table / Dimensions for SMT Plug

No. of Contacts	A	B	C	D	E	F	G	H	J
20	25.43 [1.001]	23.03 [0.907]	21.23 [0.836]	17.43 [0.686]	15.83 [0.623]	13.13 [0.517]	11.43 [0.450]	14.23 [0.560]	16.51 [0.650]
30	31.78 [1.251]	29.38 [1.157]	27.58 [1.086]	23.78 [0.936]	22.18 [0.873]	19.48 [0.767]	17.78 [0.700]	20.58 [0.810]	22.86 [0.900]
40	38.13 [1.501]	35.73 [1.407]	33.93 [1.336]	30.13 [1.186]	28.53 [1.123]	25.83 [1.017]	24.13 [0.950]	26.93 [1.060]	29.21 [1.150]
50	44.48 [1.751]	42.08 [1.657]	40.28 [1.586]	36.48 [1.436]	34.88 [1.373]	32.18 [1.267]	30.48 [1.200]	33.28 [1.310]	35.56 [1.400]
60	50.83 [2.001]	48.43 [1.907]	46.63 [1.836]	42.83 [1.686]	41.23 [1.623]	38.53 [1.517]	36.83 [1.450]	39.63 [1.560]	41.91 [1.650]
68	55.91 [2.201]	53.51 [2.107]	51.71 [2.036]	47.91 [1.886]	46.31 [1.823]	43.61 [1.717]	41.91 [1.650]	44.71 [1.760]	46.99 [1.850]
80	63.53 [2.501]	61.13 [2.407]	59.33 [2.336]	55.53 [2.186]	53.93 [2.123]	51.23 [2.017]	49.53 [1.950]	52.33 [2.060]	54.61 [2.150]
100	76.23 [3.001]	73.83 [2.907]	72.03 [2.836]	68.23 [2.686]	66.63 [2.623]	63.93 [2.517]	62.23 [2.450]	65.03 [2.560]	67.31 [2.650]

Straight Plug (SMT)



Printed Circuit Board Layout (Component Side View)



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