

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. 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: July 13, 2011

TS-1148-C
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Physical

Insulator:

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

Retaining Clips: Tin-Copper

Mating Compatibility: TS-1142

Electrical

Current Rating: 0.5 A

Insulation Resistance: $> 1 \times 10^9 \Omega$ at 250 V_{DC}

Withstanding Voltage: 300 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +85°C

Process Rating: 260°C MSL1 (per J-STD-020C)

UL File No.: E68080

3M

Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

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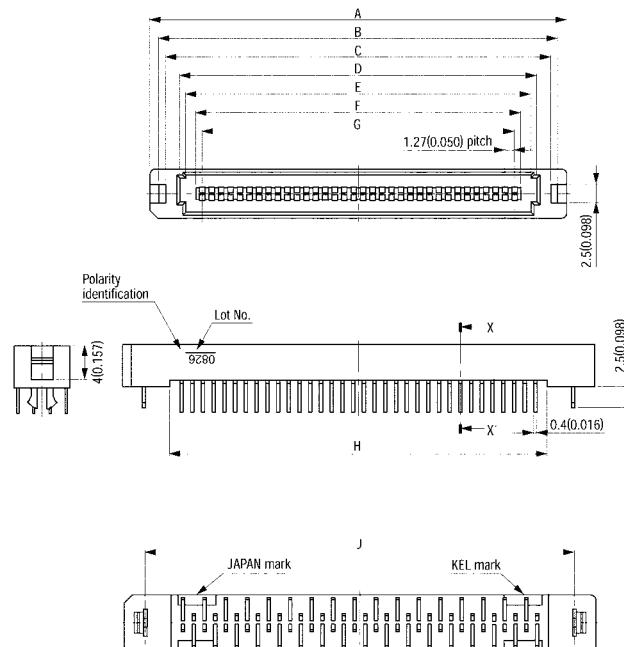
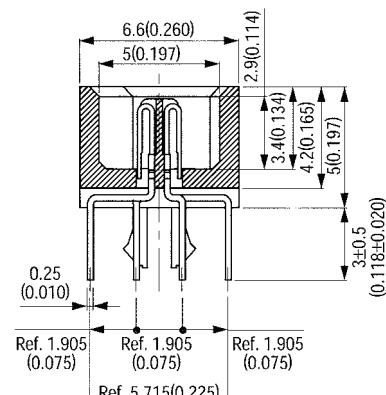
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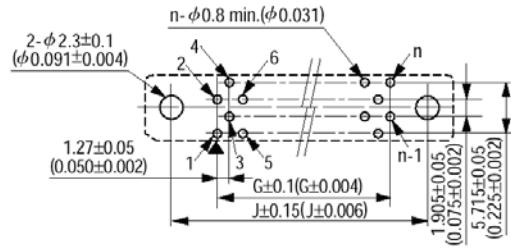
Straight Plug (Through Hole Solder Tails)

X-X' Cross Section

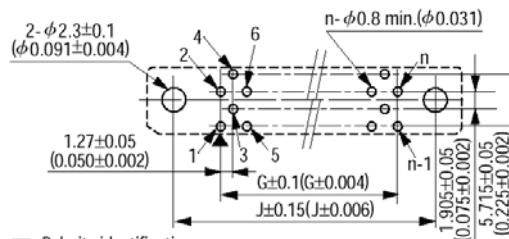


Printed Circuit Board Layout (Component Side View)

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 - XXXP1 - XXX - DA (RIA E1 and C1 apply)

Contact Quantity: _____
See Table

Solder Tail Options:

R1 = Straight/ .118" (3.0) Through hole

RR1 = Right Angle/ .118" (3.0) Through hole

SML = Vertical Surface Mounts

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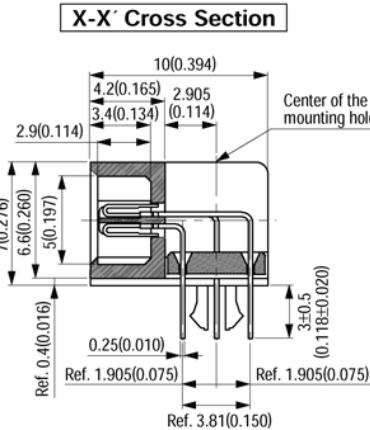
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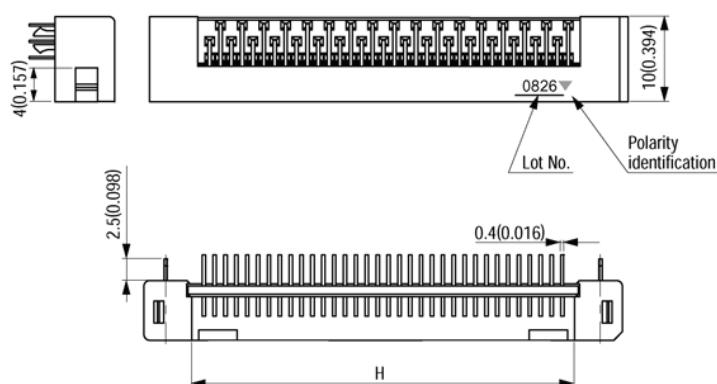
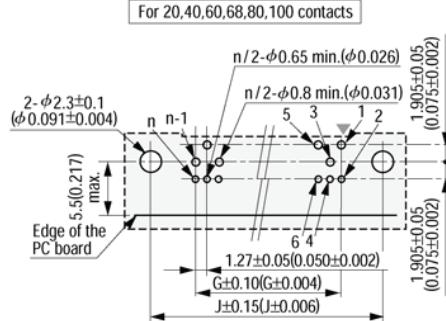
Product Table / Dimensions for Straight and Right Angle Thru-hole Plug

| Contact Quantity | A | B | C | D | E | F | G | H | J |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 20 | 25.43 [1.001] | 23.03 [0.906] | 21.23 [0.836] | 17.43 [0.686] | 15.83 [0.623] | 13.13 [0.517] | 11.43 [0.450] | 14.23 [0.560] | 20.32 [0.800] |
| 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] | 26.67 [1.050] |
| 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] | 33.02 [1.300] |
| 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] | 39.37 [1.550] |
| 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] | 45.72 [1.800] |
| 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] | 50.80 [2.000] |
| 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] | 58.42 [2.300] |
| 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] | 71.12 [2.800] |

Right Angle Plug (Through Hole Solder Tails)



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.

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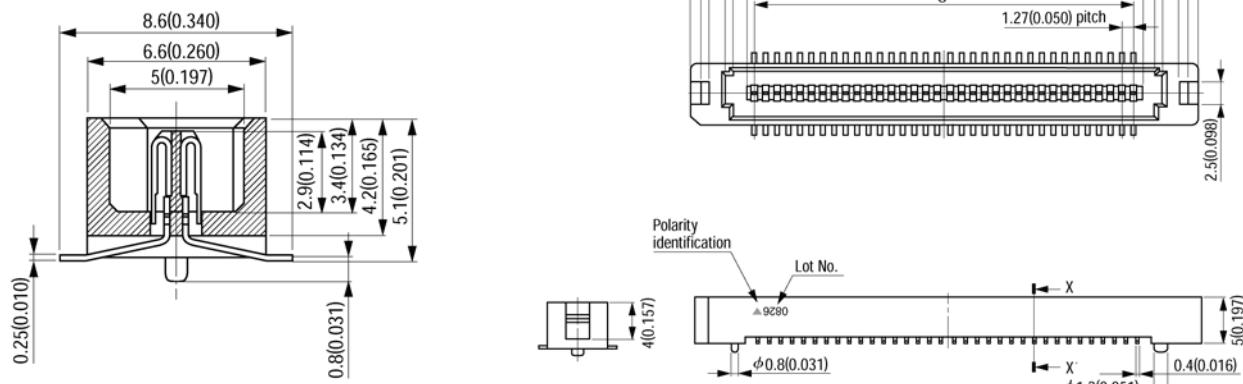
P50LE Series

Product Table / Dimensions for SMT Plug

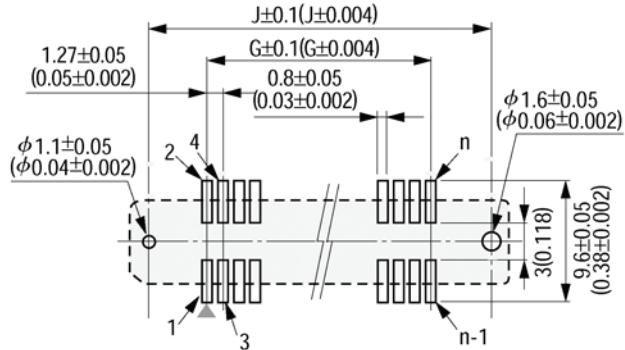
| Contact Quantity | A | B | C | D | E | F | G | H | J |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 20 | 25.43 [1.001] | 23.03 [0.907] | 21.23 [0.836] | 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)

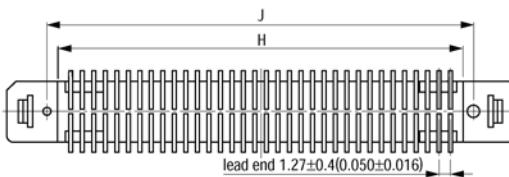
X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▼=Polarity identification
"n" is number of contacts.



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