

# 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](http://www.3Mconnector.com) for compliance information (RIA E1 and C1 apply)

Date Modified: July 13, 2011

TS-1148-C  
Sheet 1 of 4

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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

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## Electrical

**Current Rating:** 0.5 A

**Insulation Resistance:**  $> 1 \times 10^9 \Omega$  at 250 V<sub>DC</sub>

**Withstanding Voltage:** 300 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C

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

UL File No.: E68080

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

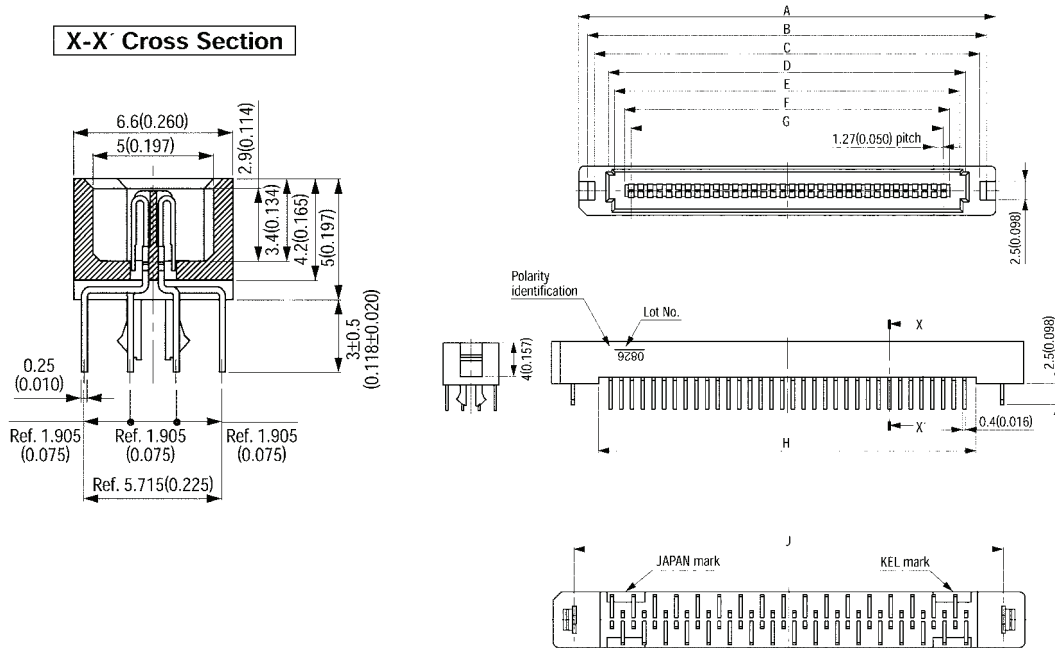
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# 3M™ Pak 50 Low Profile Plug

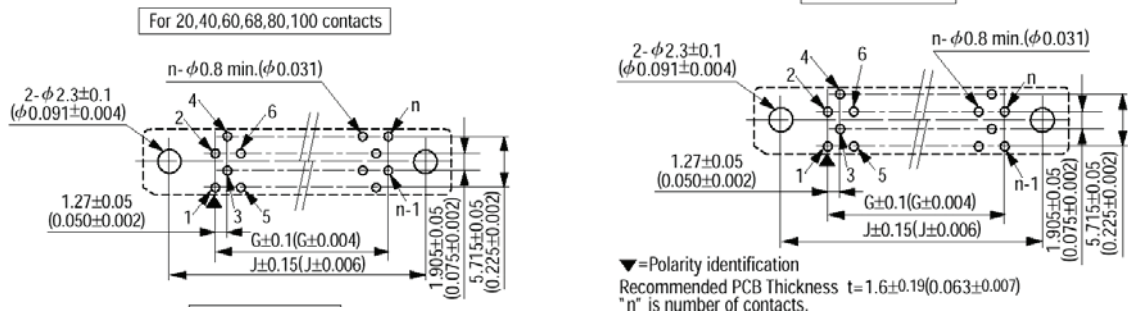
.050" Plug, (1.27) Straight, Right Angle and SMT, Low Profile

P50LE Series

## Straight Plug (Through Hole Solder Tails)



## Printed Circuit Board Layout (Component Side View)



## 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

TS-1148-C  
 Sheet 2 of 4

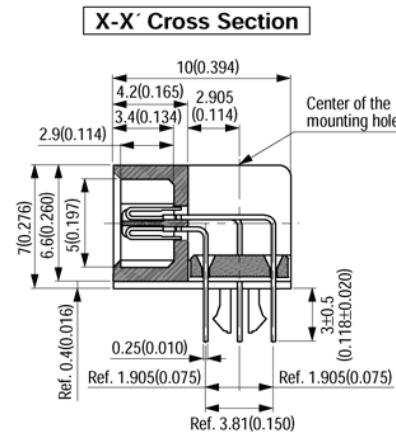
# 3M™ Pak 50 Low Profile Plug

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

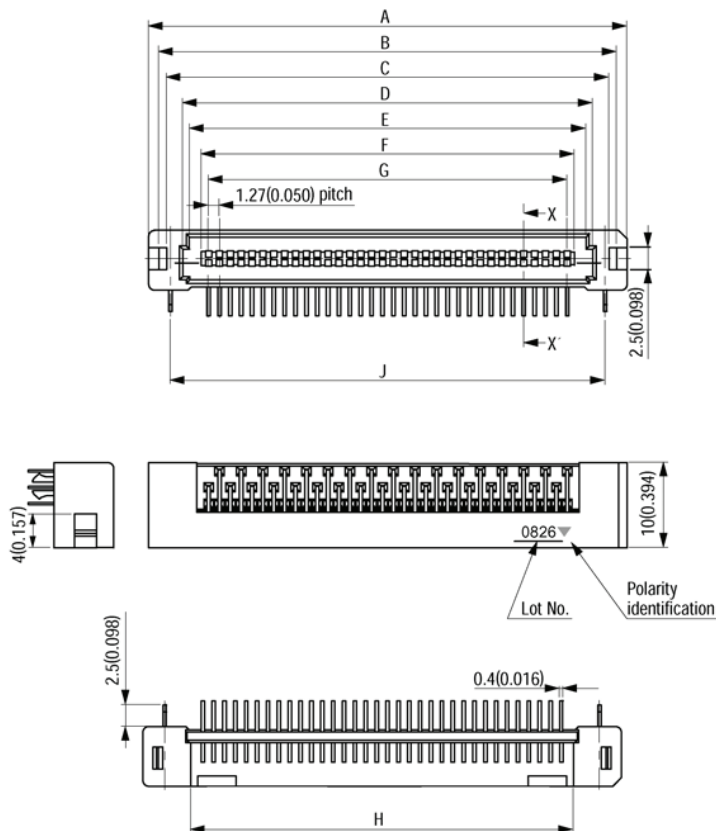
P50LE Series

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

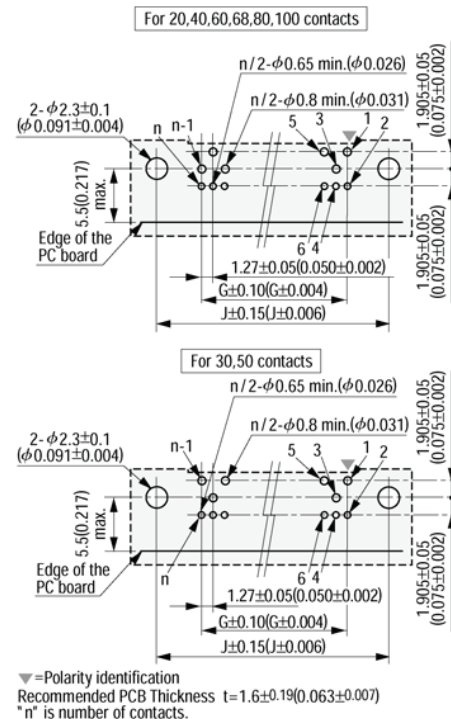
| Contact Quantity | A                | B                | C                | D                | E                | F                | G                | H                | J                |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|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



**Right Angle Plug (Through Hole Solder Tails)**



**Printed Circuit Board Layout (Component Side View)**



TS-1148-C  
Sheet 3 of 4

# 3M™ Pak 50 Low Profile Plug

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

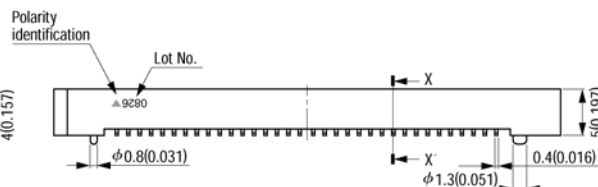
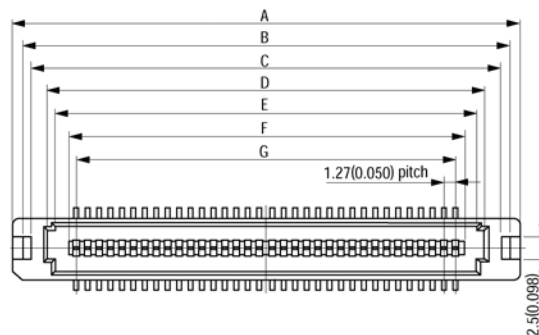
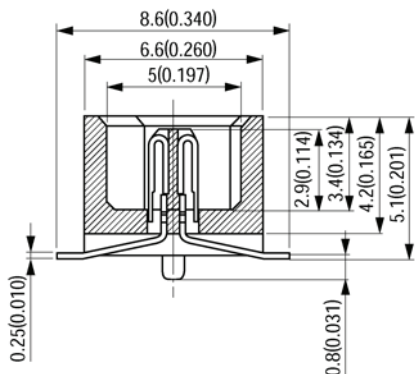
P50LE Series

**Product Table / Dimensions for SMT Plug**

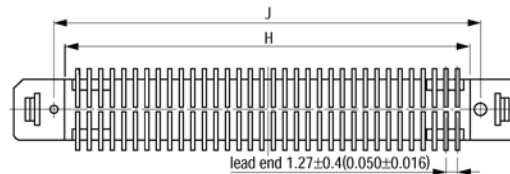
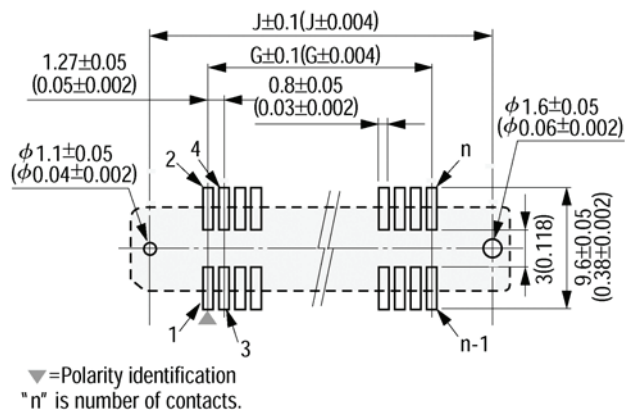
| Contact Quantity | A                | B                | C                | D                | E                | F                | G                | H                | J                |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 20               | 25.43<br>[1.001] | 23.03<br>[0.907] | 21.23<br>[0.836] | 17.43<br>[0.686] | 15.83<br>[0.623] | 13.13<br>[0.517] | 11.43<br>[0.450] | 14.23<br>[0.560] | 16.51<br>[0.650] |
| 30               | 31.78<br>[1.251] | 29.38<br>[1.157] | 27.58<br>[1.086] | 23.78<br>[0.936] | 22.18<br>[0.873] | 19.48<br>[0.767] | 17.78<br>[0.700] | 20.58<br>[0.810] | 22.86<br>[0.900] |
| 40               | 38.13<br>[1.501] | 35.73<br>[1.407] | 33.93<br>[1.336] | 30.13<br>[1.186] | 28.53<br>[1.123] | 25.83<br>[1.017] | 24.13<br>[0.950] | 26.93<br>[1.060] | 29.21<br>[1.150] |
| 50               | 44.48<br>[1.751] | 42.08<br>[1.657] | 40.28<br>[1.586] | 36.48<br>[1.436] | 34.88<br>[1.373] | 32.18<br>[1.267] | 30.48<br>[1.200] | 33.28<br>[1.310] | 35.56<br>[1.400] |
| 60               | 50.83<br>[2.001] | 48.43<br>[1.907] | 46.63<br>[1.836] | 42.83<br>[1.686] | 41.23<br>[1.623] | 38.53<br>[1.517] | 36.83<br>[1.450] | 39.63<br>[1.560] | 41.91<br>[1.650] |
| 68               | 55.91<br>[2.201] | 53.51<br>[2.107] | 51.71<br>[2.036] | 47.91<br>[1.886] | 46.31<br>[1.823] | 43.61<br>[1.717] | 41.91<br>[1.650] | 44.71<br>[1.760] | 46.99<br>[1.850] |
| 80               | 63.53<br>[2.501] | 61.13<br>[2.407] | 59.33<br>[2.336] | 55.53<br>[2.186] | 53.93<br>[2.123] | 51.23<br>[2.017] | 49.53<br>[1.950] | 52.33<br>[2.060] | 54.61<br>[2.150] |
| 100              | 76.23<br>[3.001] | 73.83<br>[2.907] | 72.03<br>[2.836] | 68.23<br>[2.686] | 66.63<br>[2.623] | 63.93<br>[2.517] | 62.23<br>[2.450] | 65.03<br>[2.560] | 67.31<br>[2.650] |

**Straight Plug (SMT)**

**X-X' Cross Section**



**Printed Circuit Board Layout (Component Side View)**



TS-1148-C  
Sheet 4 of 4

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