## 3M<sup>™</sup> 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 Sheet 1 of 4

### **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

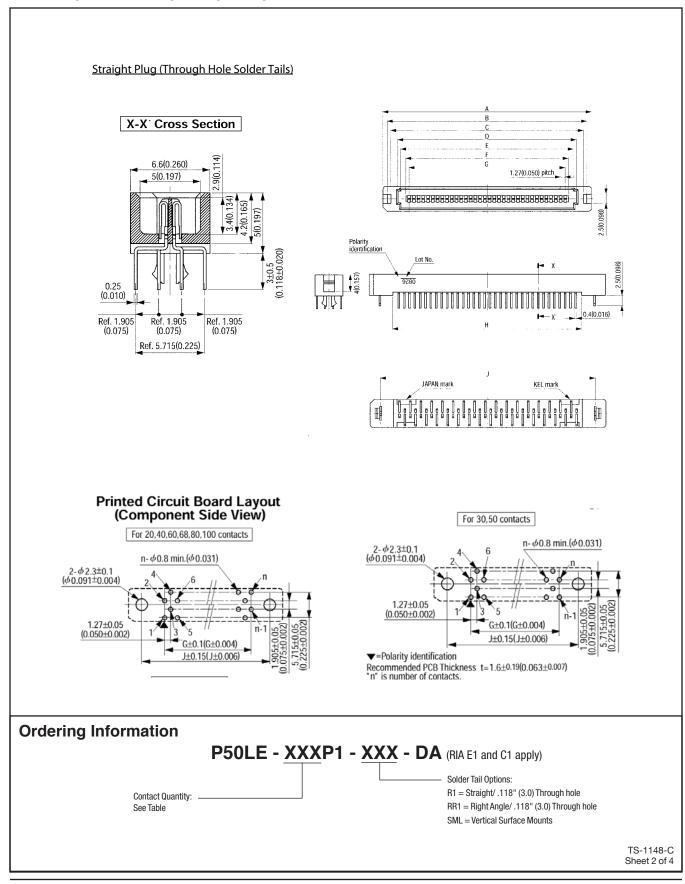
#### **Environmental**

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

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

UL File No.: E68080

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



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

Product Table / Dimensions for Straight and Right Angle Thru-hole Plug Contact С Ε В D G Н J Quantity 25.43 23.03 21.23 17.43 15.83 13.13 11.43 14.23 20.32 20 [0.800][1.001][0.906][0.836][0.686][0.623][0.517][0.450][0.560]31.78 29.38 27.58 23.78 22.18 19.48 17.78 20.58 26.67 30 [1.251][1.157][1.086][0.936][0.873][0.767][0.700][0.810][1.050]38.13 35.73 33.93 30.13 28.53 25.83 24.13 26.93 33.02 40 [1.501][1.407][1.336][1.186][1.123][1.017][0.950][1.060][1.300]X-X´ Cross Section 39.37 44.48 42.08 40.28 36.48 34.88 32.18 30.48 33.28 50 [1.751][1.657][1.586][1.436][1.373][1.267][1.200][1.310][1.550]10(0.394) 4.2(0.165) 2.905 50.83 48.43 46.63 42.83 41.23 38.53 36.83 39.63 45.72 Center of the mounting hole 60 [2.001][1.907][1.836][1.686][1.623][1.517][1.450][1.560][1.800]3.4(0.134) (0.114) 2.9(0.114) 55.91 53.51 51.71 47.91 46.31 43.61 41.91 44.71 50.80 68 [2.107][2.036][2.000][2.201][1.886][1.823][1.717][1.650][1.760]7(0.276) 6.6(0.260) 197) 55.53 49.53 63.53 61.13 59.33 53.93 51.23 52.33 58.42 80 5(0. [2.060] [2.300] [2.501][2.407][2.336][2.186][2.123][2.017][1.950]76.23 73.83 72.03 68.23 66.63 63.93 62.23 65.03 71.12 100 [3.001][2.907][2.836][2.686] [2.623] [2.517][2.450][2.560] [2.800]0.4(0.016) 0.25(0.010) 9 Ref. 1.905(0.075) Ref. 1.905(0.075) Ref. Right Angle Plug (Through Hole Solder Tails) Ref. 3.81(0.150) В **Printed Circuit Board Layout** (Component Side View) D For 20,40,60,68,80,100 contacts n/2-\phi0.65 min.(\phi0.026) G 1.27(0.050) pitch  $2-\phi 2.3\pm 0.1$  $(\phi 0.091\pm0.004)$ 5.5(0.217) max. Edge of the PC board / 1.27±0.05(0.050±0.002) G±0.10(G±0.004) J±0.15(J±0.006) For 30,50 contacts 10(0.394)  $n/2-\phi 0.65 \text{ min.}(\phi 0.026)$  $n/2-\phi 0.8 \text{ min.}(\phi 0.031)$ 2-\phi2.3\pm0.004) (\phi0.091\pm0.004) Polarity identification 5.5(0.217) max. Lot No. 2.5(0.098) Edge of the 0.4(0.016) 1.27±0.05(0.050±0.002) PC board G±0.10(G±0.004) J±0.15(J±0.006) Recommended PCB Thickness  $t=1.6\pm0.19(0.063\pm0.007)$  "n" is number of contacts. Н TS-1148-C Sheet 3 of 4 .050" Plug, (1.27) Straight, Right Angle and SMT, Low Profile

#### **Product Table / Dimensions for SMT Plug** Contact С Ε F В D G Н J Quantity 25.43 23.03 21.23 17.43 15.83 13.13 11.43 14.23 16.51 20 [1.001][0.907][0.836][0.686][0.623][0.517][0.450][0.560][0.650]31.78 29.38 27.58 23.78 22.18 19.48 17.78 20.58 22.86 30 [1.251][1.157][1.086][0.936][0.873][0.767][0.700][0.810][0.900]38.13 35.73 33.93 30.13 28.53 25.83 24.13 26.93 29.21 40 [1.501][1.407][1.336][1.186][1.123][1.017][0.950][1.060][1.150] 42.08 44.48 40.28 36.48 34.88 32.18 30.48 33.28 35.56 50 [1.751][1.657][1.586][1.436][1.373][1.267][1.200][1.310][1.400]36.83 50.83 48.43 46.63 42.83 41.23 38.53 39.63 41.91 60 [2.001][1.907][1.836][1.686][1.623][1.517][1.450][1.560][1.650]41.91 55.91 53.51 51.71 47.91 46.31 43.61 44.71 46.99 68 [2.107][2.036][2.201][1.886][1.823][1.717][1.650][1.760][1.850]55.53 49.53 52 33 63.53 61.13 59.33 53.93 51.23 54.61 80 [2.060] [2.501][2.407][2.336][2.186][2.123][2.017][1.950][2.150]76.23 73.83 72.03 68.23 66.63 63.93 62.23 65.03 67.31 100 [3.001] [2.907][2.836][2.686][2.623] [2.517][2.450][2.560] [2.650 Straight Plug (SMT) X-X´ Cross Section 1.27(0.050) pitch 8.6(0.340) 6.6(0.260) 5(0.197) .4(0.134) .2(0.165) 2.5(0) Polarity identification **₽**66 0.8(0.031)∳ ঔ $\phi$ 0.8(0.031) 0.4(0.016) φ1.3(0.051) **Printed Circuit Board Layout** (Component Side View) J±0.1(J±0.004) G±0.1(G±0.004) 1.27±0.05 $0.8\pm0.05$ $(0.05\pm0.002)$ $\phi$ 1.6±0.05 (0.03±0.002) $(\phi 0.06\pm 0.002)$ lead end 1.27±0.4(0.050±0.016) $\phi$ 1.1 $\pm$ 0.05 $(\phi 0.04\pm 0.002)$ 3(0.118) ▼=Polarity identification TS-1148-C "n" is number of contacts. Sheet 4 of 4

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