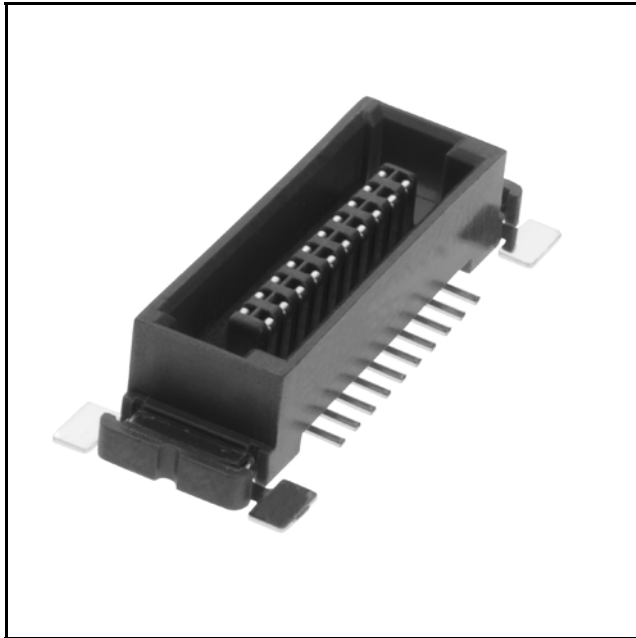


# 3M™ Pak 50 Low Profile Plug

.050" Surfacemount Plug .276" and .315" Mating Heights

P50L Series



- Low profile 0.276" - 0.315" (7-8 mm) addresses surfacemount board stacking applications
- High temperature insulator compatible with IR and wave soldering
- Solder brackets increase connector stability to protect contact solder joint integrity
- Polarized alignment posts insure correct mating
- RoHS\* compliant

Date Modified: October 2, 2006

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Sheet 1 of 2

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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

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## Electrical

**Current Rating:** 0.5 A  
**Insulation Resistance:**  $10^3 \Omega$  at 500 VDC  
**Withstanding Voltage:** 650 VAC for 1 minute

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## 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.

UL File No.: E68080

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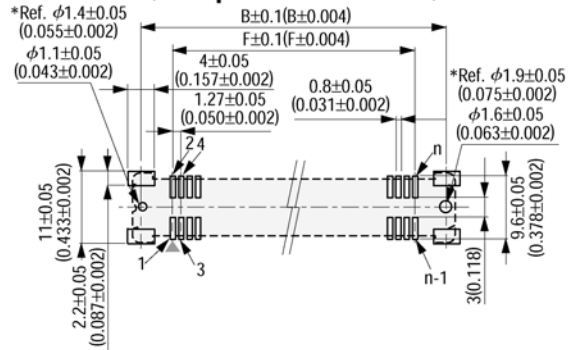
.050" Surfacemount Plug .276" and .315" Mating Heights

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Product Table / Dimensions

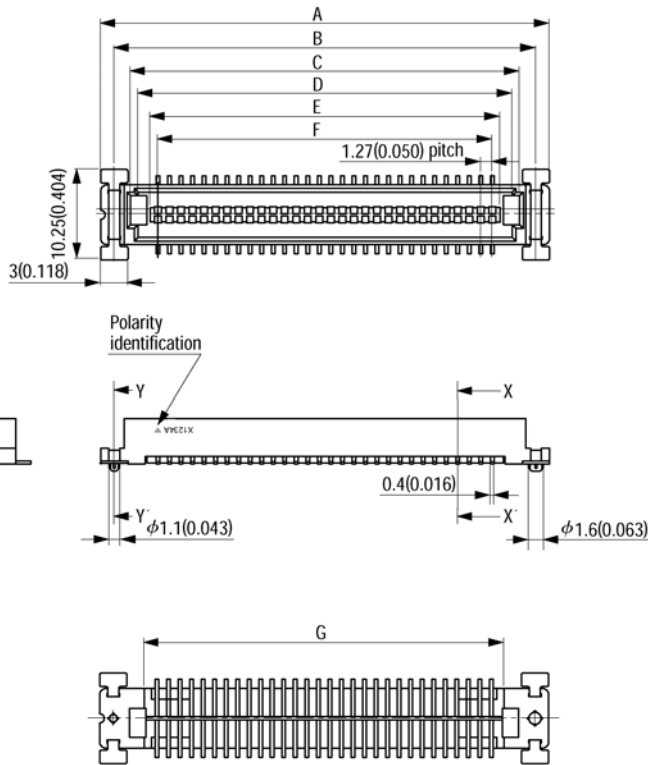
| Contact Quantity | A                | B                | C                | D                | E                | F                | G                |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 20               | 24.03<br>[0.946] | 21.03<br>[0.828] | 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] |
| 30               | 30.38<br>[1.196] | 27.38<br>[1.078] | 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] |
| 40               | 36.73<br>[1.446] | 33.73<br>[1.328] | 31.13<br>[1.186] | 28.53<br>[1.123] | 25.83<br>[1.017] | 24.13<br>[0.950] | 26.93<br>[1.060] |
| 50               | 43.08<br>[1.696] | 40.08<br>[1.578] | 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] |
| 60               | 49.43<br>[1.946] | 46.43<br>[1.828] | 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] |
| 80               | 62.13<br>[2.446] | 59.13<br>[2.328] | 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] |
| 100              | 74.83<br>[2.946] | 71.83<br>[2.828] | 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] |
| 120              | 87.53<br>[3.446] | 84.53<br>[3.328] | 80.93<br>[3.186] | 79.33<br>[3.123] | 76.63<br>[3.017] | 74.93<br>[2.950] | 77.73<br>[3.060] |

Printed Circuit Board Layout  
(Component Side View)

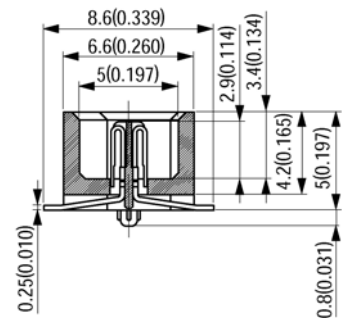


▼ = Polarity identification  
 \*n\* is number of contacts.

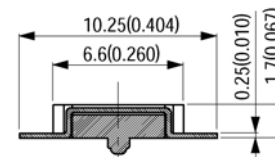
\* 1.4 and 1.9 are the recommend hole sizes when using automated placement equipment. Precision of the placement equipment should be considered.



X-X' Cross Section



Y-Y' Cross Section



## Ordering Information

P50L - XXXP - AS - DA

Contact Quantity  
 See Table

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 Sheet 2 of 2

## Important Notice

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Minimum 10%  
Post-Consumer Fiber

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