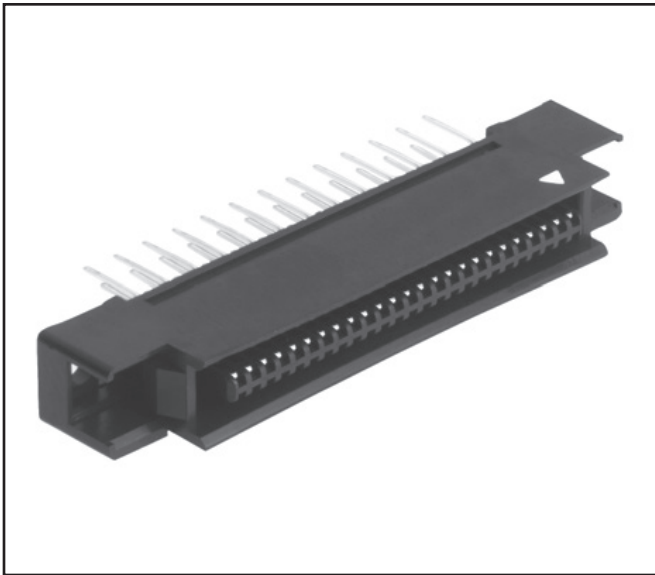


# 3M™ Pak 50 Boardmount Plug

.050" Straight and Right Angle, Through-Hole

P50E Series



- P50E Plug offers straight and right angle through-hole options
- Right angle P50E Plug comes with and without retention clips
- Latch/eject mechanism maintains a secure connection
- Mates to the P25E, P50E, and P50 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: January 31, 2011

TS-1144-B  
Sheet 1 of 3

---

## Physical

### Insulation:

Material: Glass Filled Nylon  
Flammability: UL 94V-0  
Color: Black

### Contact:

Material: Copper Alloy

### Plating:

Underplating: Nickel  
Wiping Area: 10  $\mu$ " [ 0.25  $\mu$ m ] Gold  
Solder Tails: Gold Flash  
Retention Clips: Tin-Copper  
Mating Compatibility: TS-1143, TS-1141, TS-2047

---

## Electrical

**Current Rating:** 0.5 A

**Insulation Resistance:**  $> 1 \times 10^9 \Omega$  at 500 V<sub>DC</sub>

**Withstanding Voltage:** 650 V<sub>AC</sub> for 1 minute

---

## Environmental

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

**Process Rating:** 260°C Wave Solder Compatible

UL File No.: E68080

# 3M™ Pak 50 Boardmount Plug

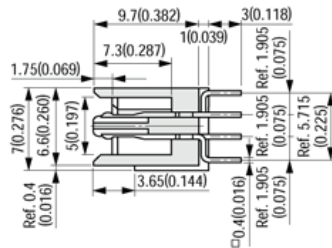
.050" Straight and Right Angle, Through-Hole

P50E Series

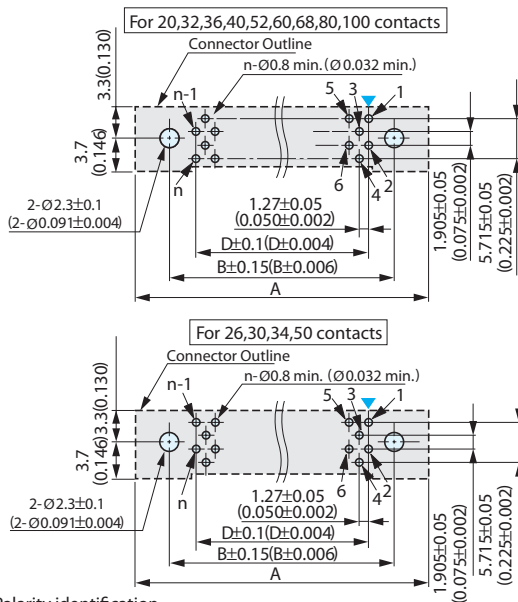
Product Table / Dimensions (For Straight and Right Angles)

Contact Quantity	A	B	C	D
20	27.83 [1.096]	22.86 [0.900]	15.83 [0.623]	11.43 [0.450]
26	31.64 [1.246]	26.67 [1.050]	19.64 [0.773]	15.24 [0.600]
30	34.18 [1.346]	29.21 [1.150]	22.18 [0.873]	17.78 [0.700]
32	35.45 [1.396]	30.48 [1.200]	23.45 [0.923]	19.05 [0.750]
34	36.72 [1.446]	31.75 [1.250]	24.72 [0.973]	20.32 [0.800]
36	37.99 [1.496]	33.02 [1.300]	25.99 [1.023]	21.59 [0.850]
40	40.53 [1.596]	35.56 [1.400]	28.53 [1.123]	24.13 [0.950]
50	46.88 [1.846]	41.91 [1.650]	34.88 [1.373]	30.48 [1.200]
52	48.15 [1.896]	43.18 [1.700]	36.15 [1.423]	31.75 [1.250]
60	53.23 [2.096]	48.26 [1.900]	41.23 [1.623]	36.83 [1.450]
68	58.31 [2.296]	53.34 [2.100]	46.31 [1.823]	41.91 [1.650]
80	65.93 [2.596]	60.96 [2.400]	53.93 [2.123]	49.53 [1.950]
100	78.63 [3.096]	73.66 [2.900]	66.63 [2.623]	62.23 [2.450]

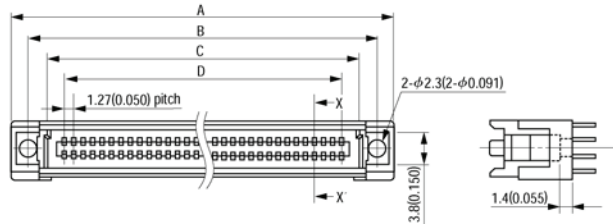
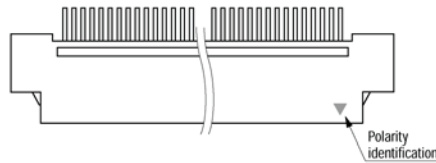
X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▼=Polarity identification  
Recommended PCB Thickness  $t=1.6 \pm 0.19(0.063 \pm 0.007)$



## Ordering Information

### P50E - XXXP1 - XXX - EA

Contact Quantity: \_\_\_\_\_  
See Table

Solder Tail/Clip Options:  
S1 = Straight tails, without Retention Clips  
SR1 = Right angle tails, without Retention Clips  
RR1 = Right angle tails, with Retention Clips

TS-1144-B  
Sheet 2 of 3

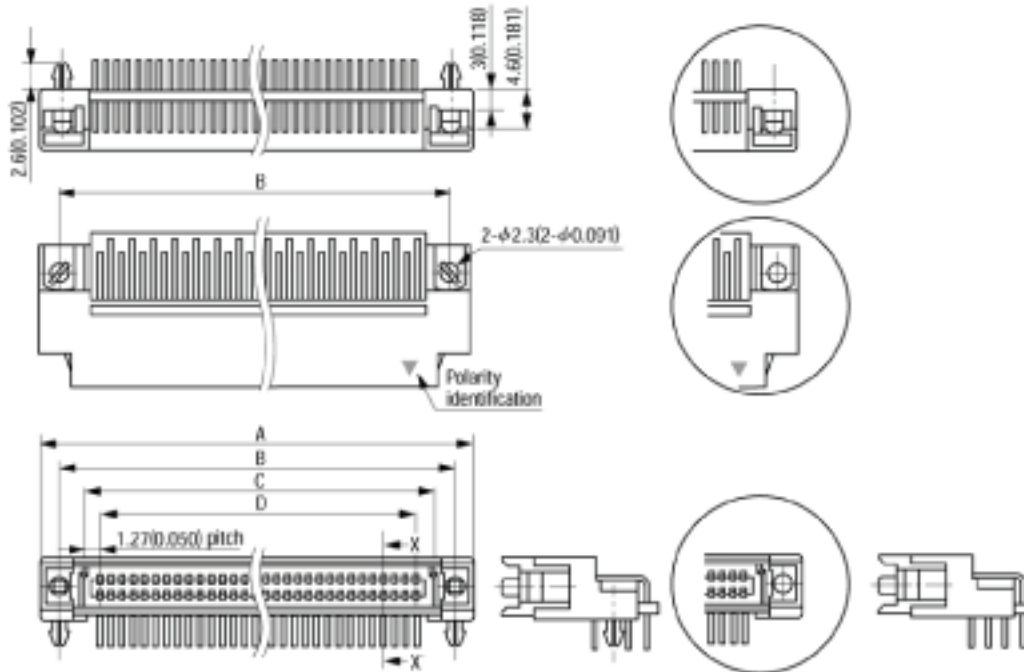
# 3M™ Pak 50 Boardmount Plug

.050" Straight and Right Angle, Through-Hole

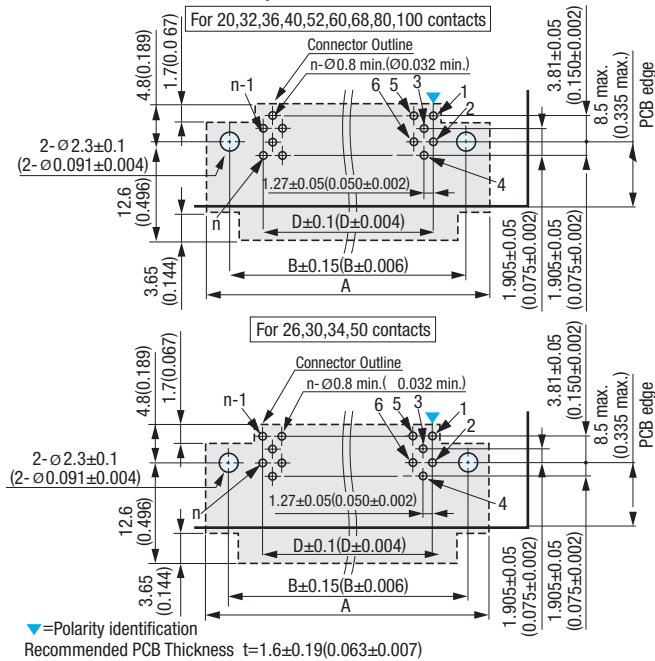
P50E Series

Right Angle Plug with Retention Clips

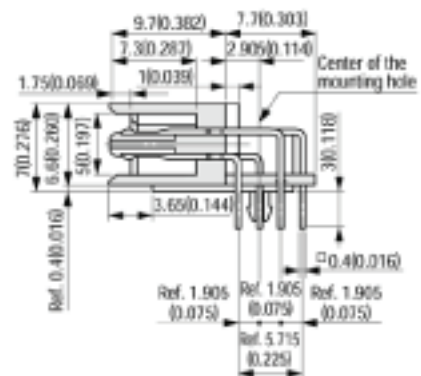
Right Angle Plug without Retention Clips



Printed Circuit Board Layout  
(Component Side View)



X-X' Cross Section



TS-1144-B  
Sheet 3 of 3

**Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

**Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

**3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3Mconnector.com](http://www.3Mconnector.com)

Please recycle. Printed in USA.  
© 3M 2010. All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.