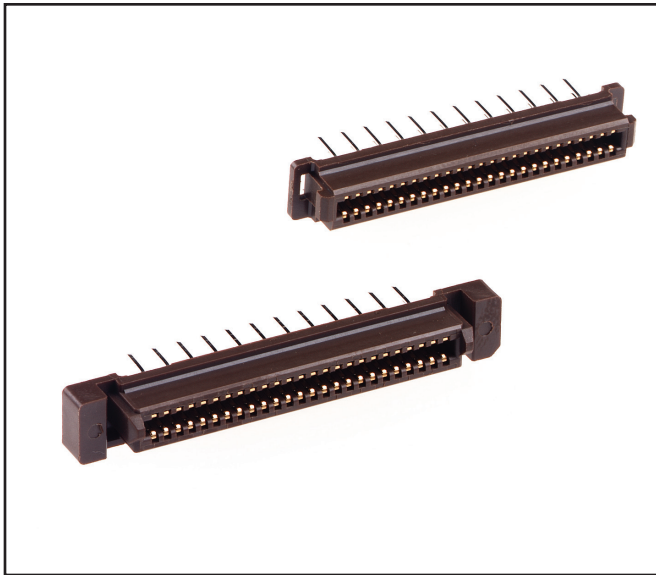


# 3M™ Pak 50 Low Profile Socket

.050" Vertical Stacking with and without Flanges

P50L Series



- Low profile offers mating heights between 0.276" - 0.472" (7-12 mm) for board stacking applications
- High temperature insulator compatible with IR and wave soldering
- Guide posts for easy mating/unmating
- Retention clips stabilize connector to the board during wave soldering
- 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: August 4, 2010

TS-2054-C  
Sheet 1 of 3

## Physical

### Insulator:

Material: Glass Filled PPS

Flammability: UL 94V-0

Color: Brown

Alignment Plate: Glass Filled Nylon (Brown)

Contact Material: Phosphor Bronze

### Plating:

Underplating: Nickel

Wiping Area: Gold Flash

Solder Tails: Gold Flash

Retaining Clips: Tin-Copper

Mating Compatibility: TS-1145, TS-1161, TS-2053

## 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 MSL1 (per J-STD-020C)

UL File No.: E68080

# 3M™ Pak 50 Low Profile Socket

.050" Vertical Stacking with and without Flanges

P50L Series

## Socket with Flanges and Retention Clips

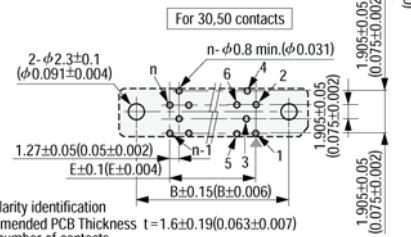
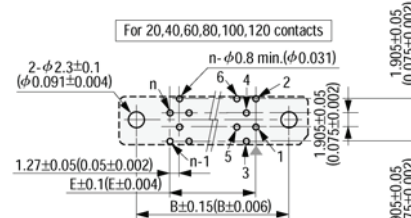
### Product Table / Dimensions

Contact Quantity	A	B	C	D	E
20	25.43 [1.001]	20.32 [0.800]	17.03 [0.670]	15.43 [0.607]	11.43 [0.450]
30	31.78 [1.251]	26.67 [1.050]	23.38 [0.920]	21.78 [0.857]	17.78 [0.700]
40	38.13 [1.501]	33.02 [1.300]	29.73 [1.170]	28.13 [1.107]	24.13 [0.950]
50	44.48 [1.751]	39.37 [1.550]	36.08 [1.420]	34.48 [1.357]	30.48 [1.200]
60	50.83 [2.001]	45.72 [1.800]	42.43 [1.670]	40.83 [1.607]	36.83 [1.450]
80	63.53 [2.501]	58.42 [2.300]	55.13 [2.170]	53.53 [2.107]	49.53 [1.950]
100	76.23 [3.001]	71.12 [2.800]	67.83 [2.670]	66.23 [2.607]	62.23 [2.450]
120	88.93 [3.501]	83.82 [3.300]	80.53 [3.170]	78.93 [3.107]	74.93 [2.950]



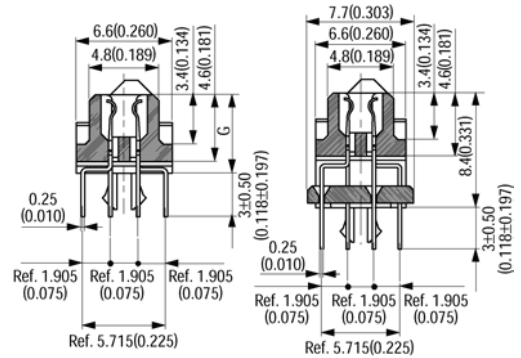
Type	F	G
A	3.50 [0.138]	5.40 [0.213]
B	4.50 [0.177]	6.40 [0.252]
D	6.50 [0.256]	NA NA

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

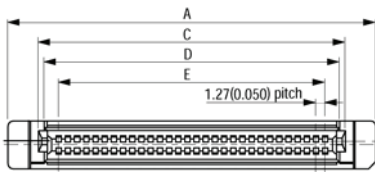


▽ = Polarity identification  
Recommended PCB Thickness t = 1.6±0.19(0.063±0.007)  
"n" is number of contacts.

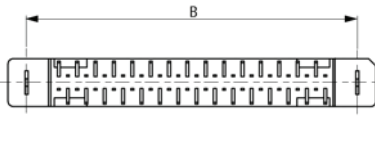
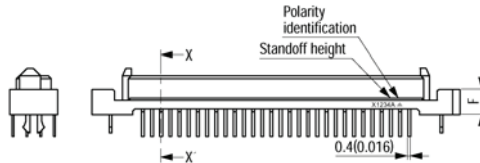
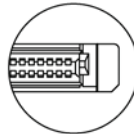
### X-X' Cross Section



### A, B type (Standoff height)



### D type



Note:

Plugs/Sockets with flanges and retention clips are not interchangeable with plugs/sockets without flanges and retention clips

## Ordering Information

**P5XL - XXXS - X - DA** (RIA E1 and C1 apply)

0 = With Flanges and Retention Clips  
1 = Without Flanges and Retention Clips

A = Type A  
B = Type B  
D = Type D

Contact Quantity  
See Table

TS-2054-C  
Sheet 2 of 3

# 3M™ Pak 50 Low Profile Socket

.050" Vertical Stacking with and without Flanges

P50L Series

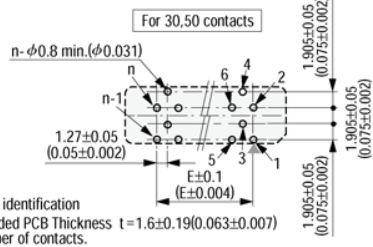
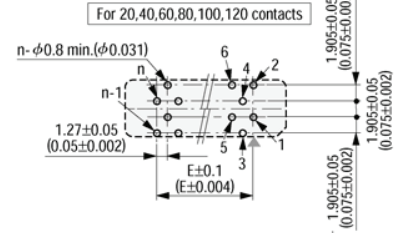
## Product Table / Dimensions

Socket without Flanges and Retention Clips

Contact Quantity	A	B	C	D	E
20	18.83 [0.741]	17.03 [0.670]	14.53 [0.572]	13.43 [0.529]	11.43 [0.450]
30	25.18 [0.991]	23.38 [0.920]	20.88 [0.822]	19.78 [0.779]	17.78 [0.700]
40	31.53 [1.241]	29.73 [1.170]	27.23 [1.072]	26.13 [1.029]	24.13 [0.950]
50	37.88 [1.491]	36.08 [1.420]	33.58 [1.322]	32.48 [1.279]	30.48 [1.200]
60	44.23 [1.741]	42.43 [1.670]	39.93 [1.572]	38.83 [1.529]	36.83 [1.450]
80	56.93 [2.241]	55.13 [2.170]	52.63 [2.072]	51.53 [2.029]	49.53 [1.950]
100	69.63 [2.741]	67.83 [2.670]	65.33 [2.572]	64.23 [2.529]	62.23 [2.450]
120	82.33 [3.241]	80.53 [3.170]	78.03 [3.072]	76.93 [3.029]	74.93 [2.950]

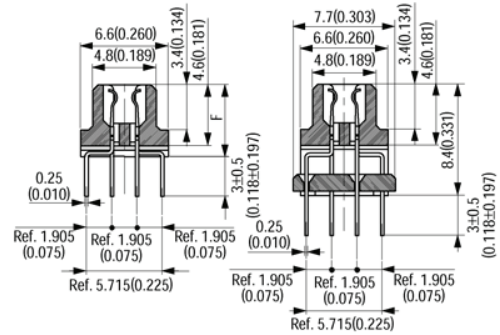
Type	F
A	5.40 [0.213]
B	6.40 [0.252]

## Printed Circuit Board Layout (Component Side View)



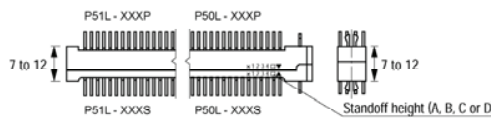
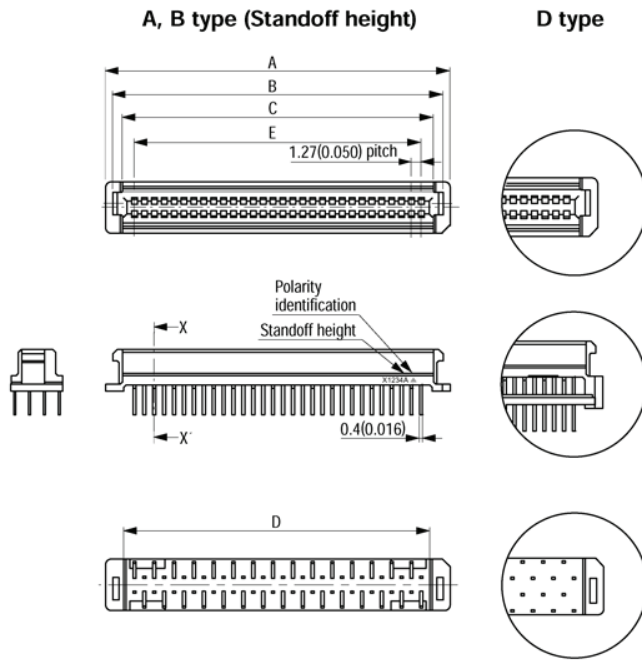
▽ = Polarity identification  
Recommended PCB Thickness  $t = 1.6 \pm 0.19 (0.063 \pm 0.007)$   
"n" is number of contacts.

## X-X' Cross Section



A, B type

D type

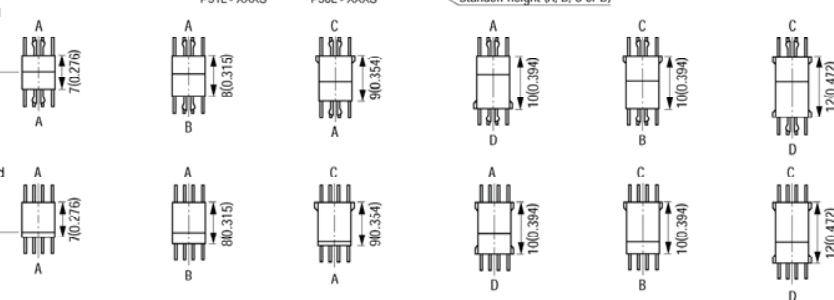


with flanges and retention clips

Plug Socket

without flanges and retention clips

Plug Socket



TS-2054-C  
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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.