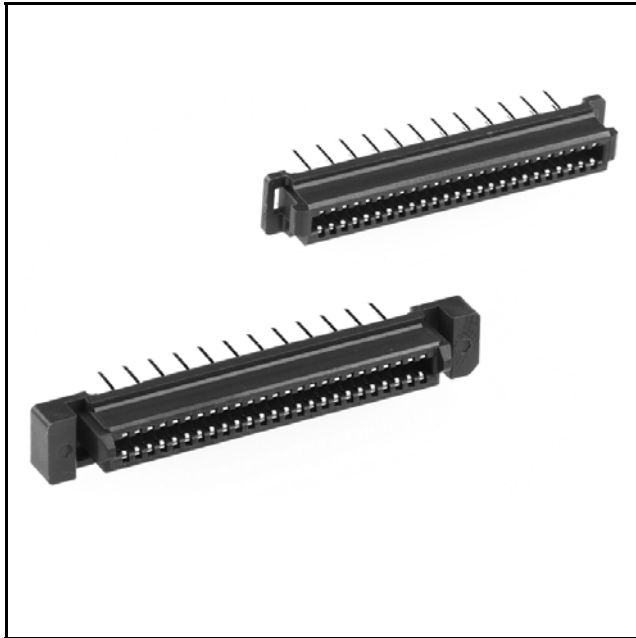


3M™ Pak 50 Low Profile Socket

.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* version (DA plating suffix) available

Date Modified: February 2, 2006

TS-2054-02
Sheet 1 of 3

Physical

Insulation

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: Tin Alloy over Nickel or Gold Flash (RoHS compliant)(see ordering information)
Retaining Clips: Tin Lead or Tin-Copper (RoHS compliant)

Electrical

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

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 by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E68080

3M
Interconnect Solutions
<http://www.3M.com/interconnects/>

3M is a trademark of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ Pak 50 Low Profile Socket

.050" Vertical Stacking with and without Flanges

P50L Series

Socket with Flanges and Retention Clips

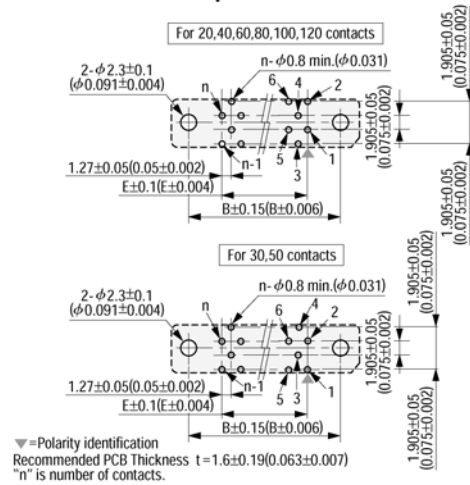
Product Table / Dimensions

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



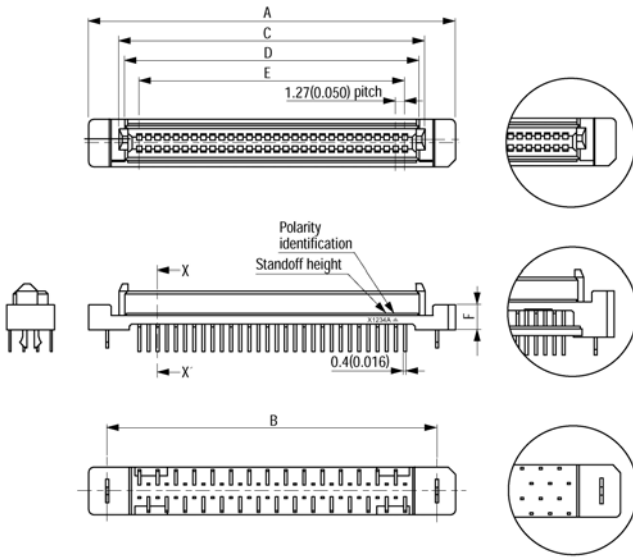
Type	F	G
A	3.50	5.40
	[0.138]	[0.213]
B	4.50	6.40
	[0.177]	[0.252]
D	6.50	NA
	[0.256]	NA

Printed Circuit Board Layout (Component Side View)

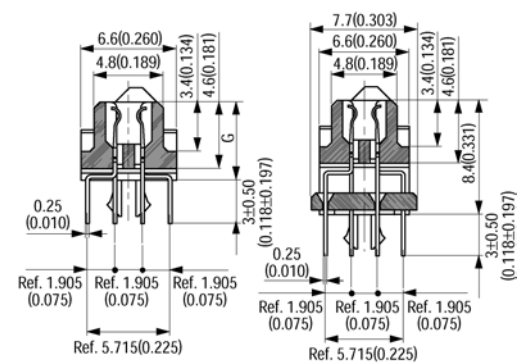


A, B type (Standoff height)

D type



X-X' Cross Section



A, B type

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 - XXX

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

Contact Quantity
See Table

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

Plating Options:
TGF = gold flash with Sn-Pb solder tails
DA = gold flash overall (RoHS compliant)

TS-2054-02
Sheet 2 of 3

3M™ Pak 50 Low Profile Socket

.050" Vertical Stacking with and without Flanges

P50L Series

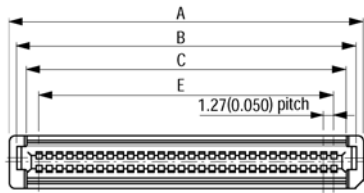
Socket without Flanges and Retention Clips

Product Table / Dimensions

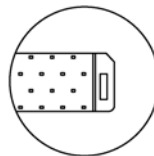
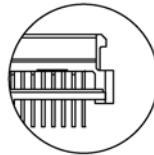
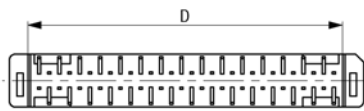
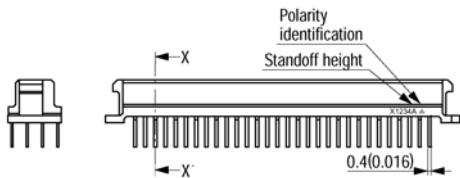
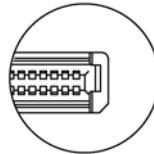
Contact Quantity	A	B	C	D	E
20	18.83	17.03	14.53	13.43	11.43
	[0.741]	[0.670]	[0.572]	[0.529]	[0.450]
30	25.18	23.38	20.88	19.78	17.78
	[0.991]	[0.920]	[0.822]	[0.779]	[0.700]
40	31.53	29.73	27.23	26.13	24.13
	[1.241]	[1.170]	[1.072]	[1.029]	[0.950]
50	37.88	36.08	33.58	32.48	30.48
	[1.491]	[1.420]	[1.322]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

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

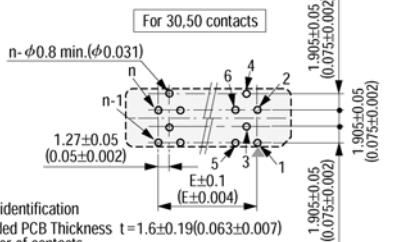
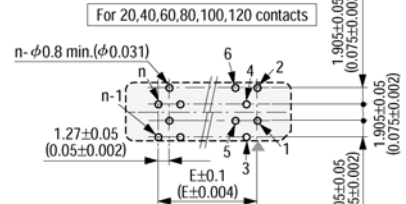
A, B type (Standoff height)



D type

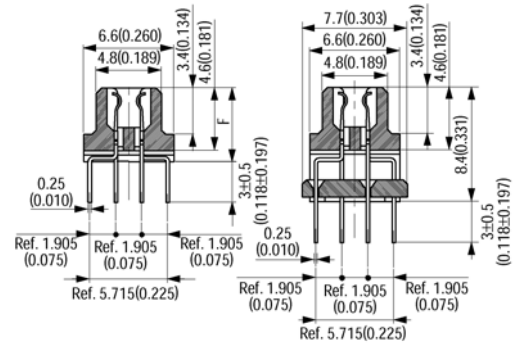


Printed Circuit Board Layout (Component Side View)



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

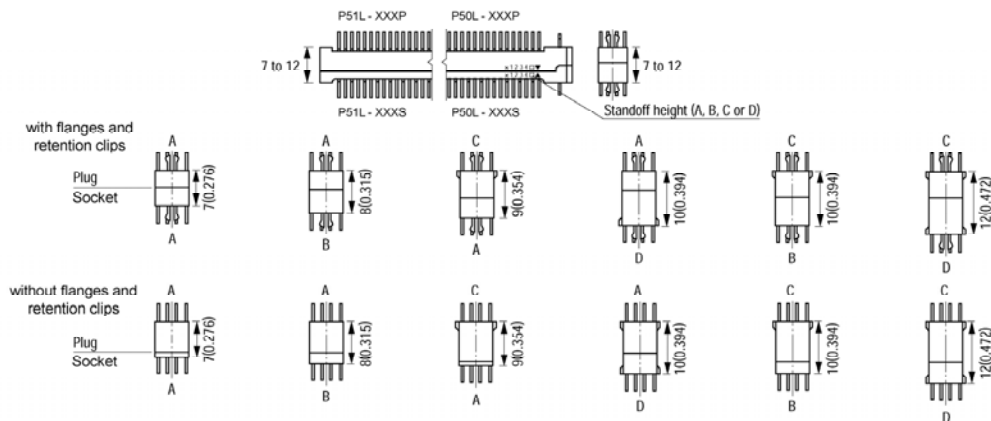
X-X' Cross Section



A, B type

D type

Stacked Mating Combinations



TS-2054-02
 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.

3M

3M Electronics

6801 River Place Blvd.
Austin, TX 78726-9000
800/225-5373
www.3M.com/electronics

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.**



*Minimum 10%
Post-Consumer Fiber*

Printed in USA.

© 3M 2006