

Stacking Height Guide for Parallel Board-to-Board Applications

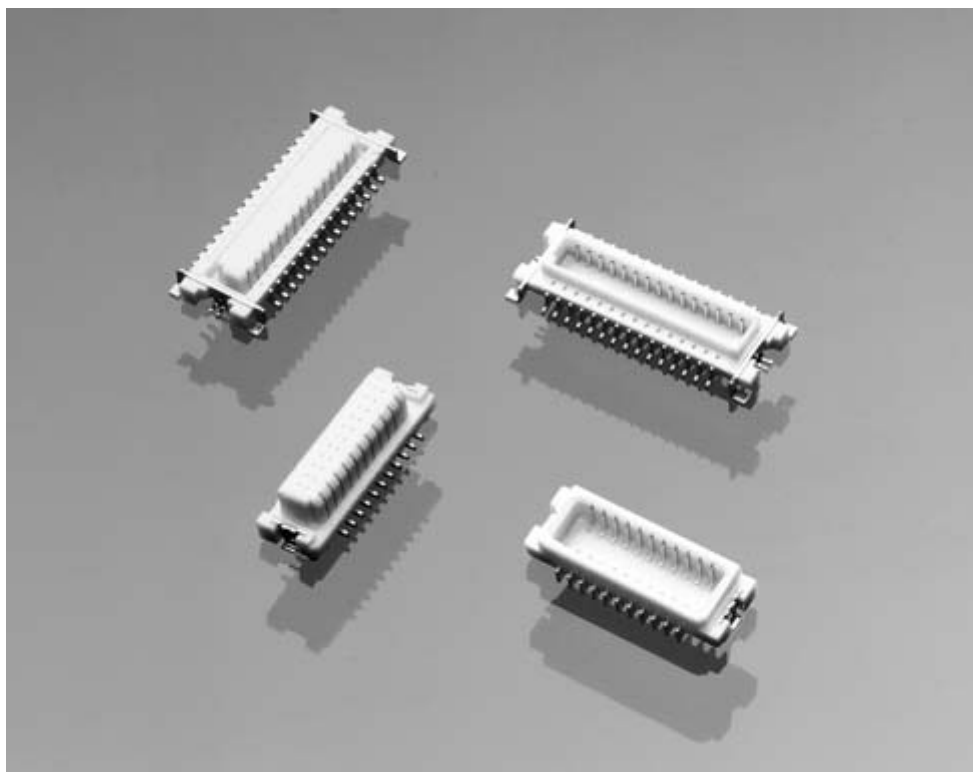
Stacking Height Guide for Parallel Board-to-Board Applications (Continued)

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0.8mm Fine Stack and Fine Mate Connectors

Product Facts

- 0.8 [.031] fine pitch SMT connectors for board-to-board interconnections
- Low profile parallel board stacking heights as low as 3.0 [.118]
- Available packaged in tape and reel for automatic placement per EIAJ standards
- Offered with tin or gold plating on mating surfaces
- Solder pegs included for anti-peeling
- Surface areas provided to accommodate vacuum nozzles



Note: Fine Stack connectors are shown on top; Fine Mate connectors are shown at the bottom.

The Tyco Electronics 0.8mm Fine Stack and Fine Mate product lines are economical, surface-mount, fine pitch board-to-board connectors. Both product lines have been developed to meet the latest needs of the electronic industry for high density packaging.

These connectors offer a 0.8 [.031] contact pitch and parallel board stacking heights ranging from 3.0 [.118] to 4.5 [.177]. They are ideally suited for applications requiring miniaturization, such as cellular phones, pagers, notebook computers, camcorders and other consumer electronics.

Both Fine Stack and Fine Mate connectors were designed for economical, automatic placement onto SMT printed circuit boards. The plug and cap designs include surface areas to accommodate "pick and place" vacuum nozzles without secondary covers. All products are "tape and reel" packaged, conforming to EIAJ standards.

**3.0 – 9.0 [.118 – .354]
Stacking Height**

Material and Finish

Housing — 6T nylon, high heat resistant resin

Contacts — Phosphor bronze, plated gold or tin on contact area (see chart), tin or gold on solder leads (see chart), with entire contact underplated nickel

Related Product Data

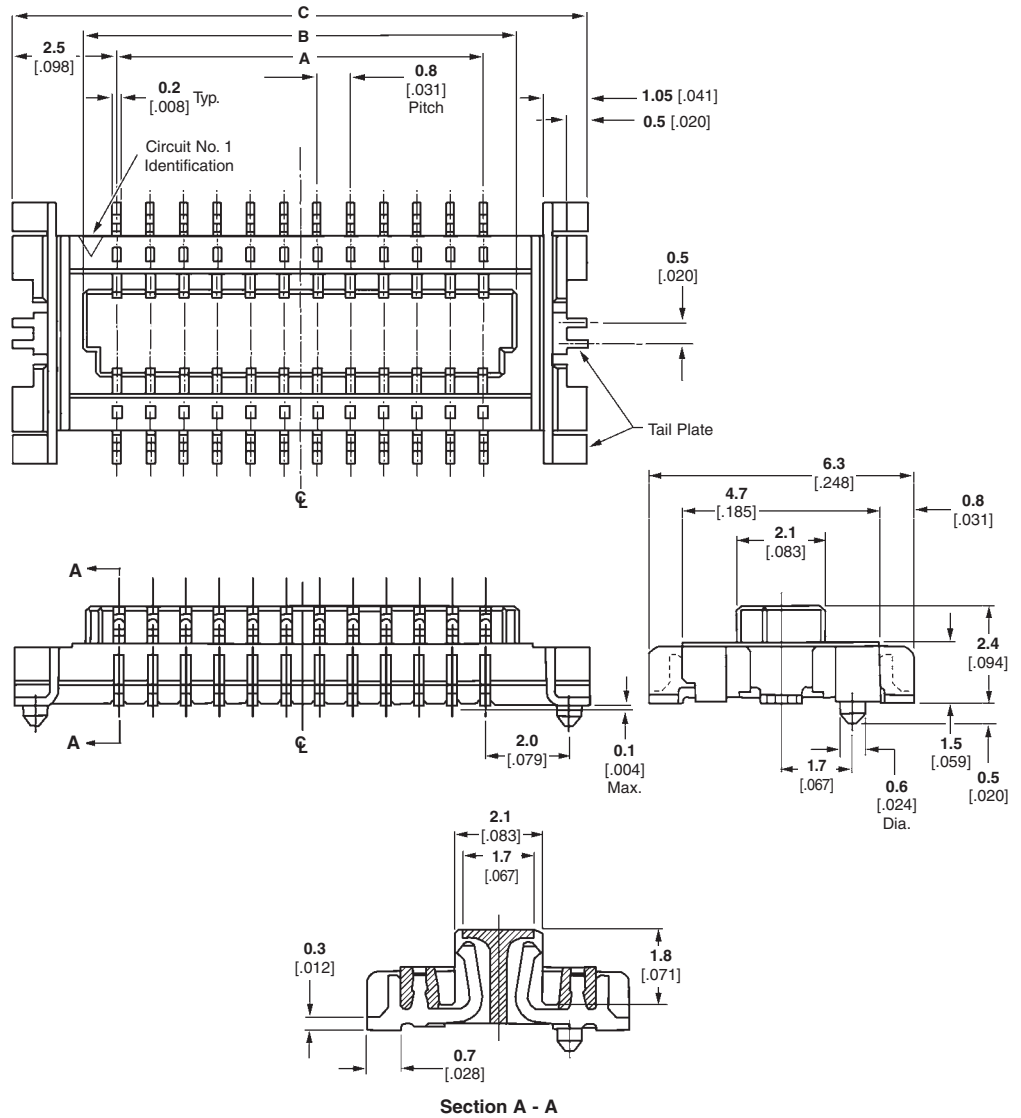
Mating Caps — pages 66 & 67

Technical Documents (page 113)

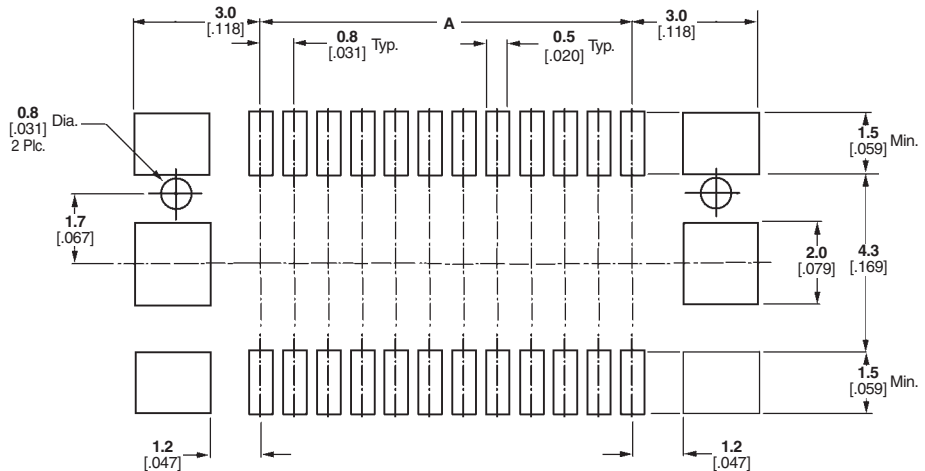
Product Specifications

108-5424, 108-5466

0.8mm Fine Stack Plugs, 0.8 [.031] Pitch



Section A - A



Recommended PC Board Layout
(PC Board Thickness = 0.6 [.024] Min.)

0.8mm Fine Stack Plugs, 0.8 [.031] Pitch (Continued)

No. of Positions	Dimensions			Contact Plating	With Boss	Keying	With Pickup Tape	Part Number
	A	B	C					
12	4.0 .157	5.6 .220	9.0 .354	Tin	Yes	Yes	No	1-179396-2
				Tin	No	Yes	No	1-179400-2
				Gold	Yes	Yes	No	1-179701-2
				Gold	No	Yes	No	1-179702-2
14	4.8 .189	6.4 .252	9.8 .386	Tin	Yes	Yes	No	1-179396-4
				Tin	No	Yes	No	1-179400-4
				Gold	Yes	Yes	No	1-179701-4
				Gold	No	Yes	No	1-179702-4
16	5.6 .217	7.2 .283	10.6 .417	Tin	Yes	Yes	No	1-179396-6
				Tin	No	Yes	No	1-179400-6
				Gold	Yes	Yes	No	1-179701-6
				Gold	No	Yes	No	1-179702-6
24	8.8 .346	10.4 .409	13.8 .543	Tin	Yes	Yes	No	2-179396-4
				Tin	No	Yes	No	2-179400-4
				Gold	Yes	Yes	No	2-179701-4
				Gold	No	Yes	No	2-179702-4
30	11.2 .441	12.8 .504	16.2 .638	Tin	Yes	Yes	No	3-179396-0
				Tin	No	Yes	No	3-179400-0
				Gold	Yes	Yes	No	3-179701-0
				Gold	No	Yes	No	3-179702-0
34	12.8 .504	14.4 .567	17.8 .701	Tin	Yes	No	No	3-917299-0
				Tin	No	No	No	3-917293-0
				Tin	Yes	Yes	No	3-917299-4
				Tin	No	No	No	3-917293-4
40	15.2 .598	16.8 .661	20.2 .795	Tin	Yes	Yes	No	4-179396-0
				Tin	No	Yes	No	4-179400-0
				Gold	Yes	Yes	No	4-179701-0
				Gold	No	Yes	No	4-179702-0
50	19.2 .756	20.8 .819	24.2 .953	Tin	Yes	Yes	No	5-179396-0
				Gold	Yes	Yes	No	5-179701-0

Note: Part Numbers are RoHS compliant.

0.8mm Fine Stack Caps (Receptacles), 0.8 [.031] Pitch

3.0 [.118] Stacking Height

Material and Finish

Housing — 6T nylon, high heat resistant resin

Contacts — Phosphor bronze, plated gold or tin on contact area (see chart), tin or gold on solder leads (see chart), with entire contact underplated nickel

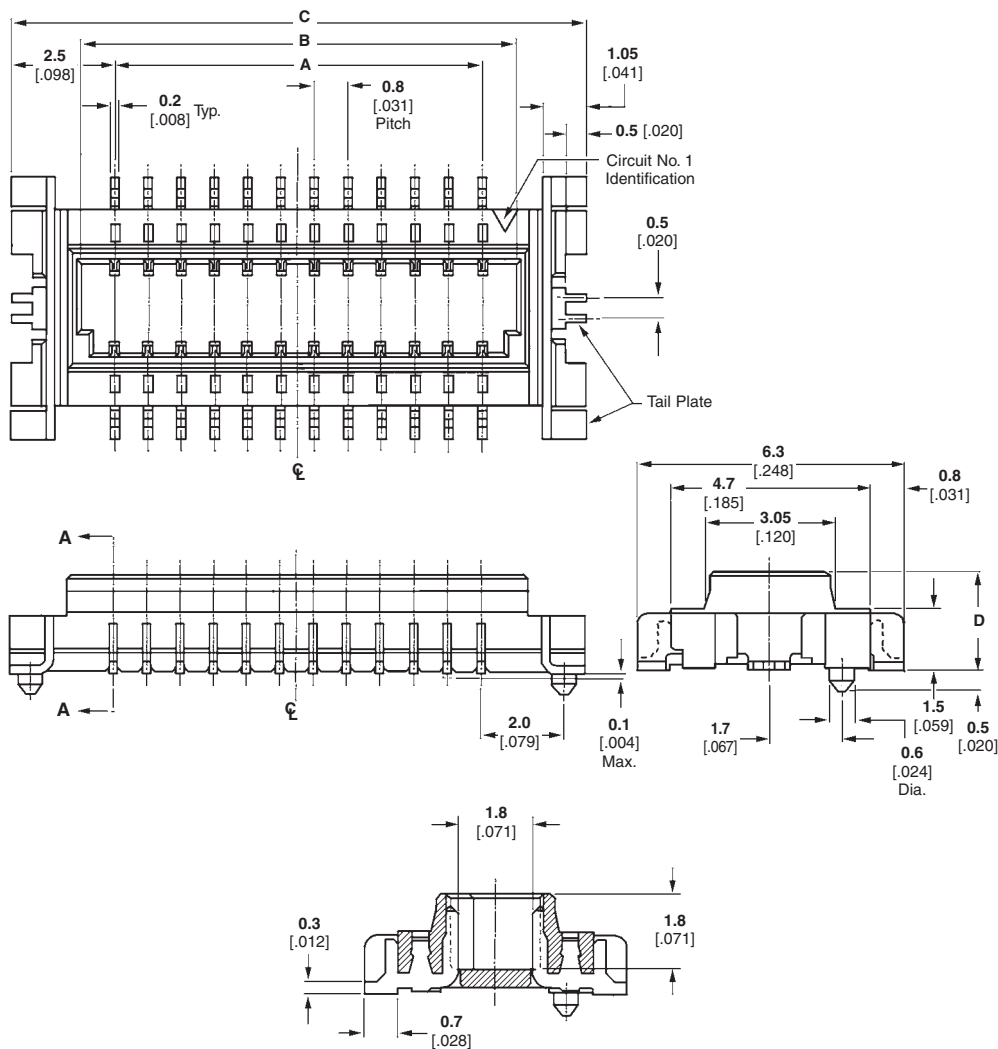
Related Product Data

Mating Plugs — pages 64 & 65

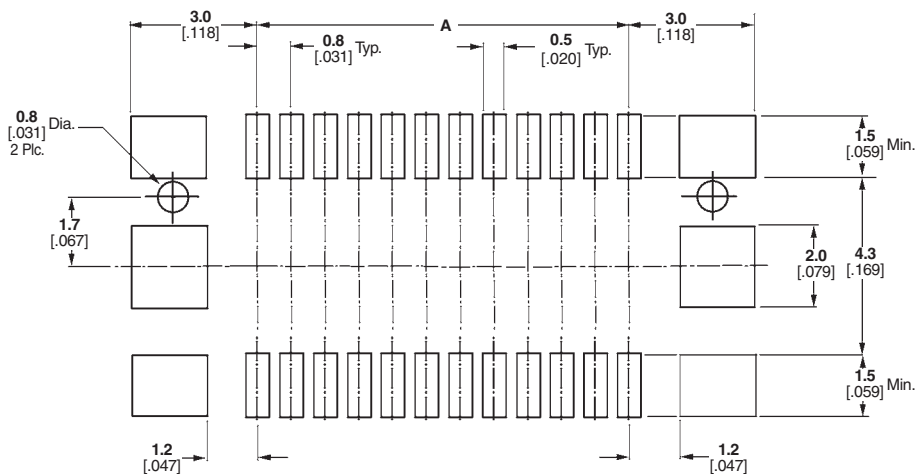
Technical Documents (page 113)

Product Specifications

108-5424, 108-5466



Section A - A



Recommended PC Board Layout
(PC Board Thickness = 0.6 [.024] Min.)

0.8mm Fine Stack Caps (Receptacles), 0.8 [.031] Pitch (Continued)

No. of Positions	Dimensions				Stack Height	Contact Plating	With Boss	Keying	With Pickup Tape	Part Number
	A	B	C	D						
12	4.0 .157	5.6 .220	9.0 .354	2.4 .094	3.0 .118	Tin	Yes	Yes	No	1-179397-2
						Tin	No	Yes	No	1-179403-2
						Gold	No	Yes	No	1-1871238-2
				3.6 .142	4.2 .165	Tin	Yes	Yes	No	1-6376826-2
						Tin	Yes	Yes	No	1-6376038-2
						Tin	No	Yes	No	1-6473725-2
				5.3 .209	5.9 .232	Tin	No	Yes	No	1-1827815-2
						Tin	Yes	Yes	No	1-179397-4
14	4.8 .189	6.4 .252	9.8 .386	2.4 .094	3.0 .118	Tin	No	Yes	No	1-179403-4
						Gold	Yes	Yes	No	1-179703-4
						Gold	No	Yes	No	1-179704-4
						Tin	Yes	Yes	No	1-179397-6
16	5.6 .217	7.2 .283	10.6 .417	2.4 .094	3.0 .118	Tin	No	Yes	No	1-179403-6
						Gold	Yes	Yes	No	1-179703-6
						Gold	No	Yes	No	1-179704-6
						Tin	Yes	Yes	No	2-179397-4
24	8.8 .346	10.4 .409	13.8 .543	2.4 .094	3.0 .118	Tin	No	Yes	No	2-179403-4
						Gold	Yes	Yes	No	2-179703-4
						Gold	No	Yes	No	2-179704-4
						Tin	Yes	Yes	No	3-179397-0
30	11.2 .441	12.8 .504	16.2 .638	2.4 .094	3.0 .118	Tin	No	Yes	No	3-179403-0
						Gold	Yes	Yes	No	3-179703-0
						Gold	No	Yes	No	3-179704-0
						Tin	No	No	No	3-917294-0
						Tin	Yes	No	No	3-917300-0
						Tin	Yes	Yes	Yes	3-1565909-0
				3.3 .130	3.9 .154	Tin	Yes	Yes	Yes	3-6612118-0
						Tin	Yes	Yes	No	3-6376826-0
						Tin	Yes	Yes	No	3-6565907-0
						Tin	Yes	Yes	No	3-6376038-0
						Tin	No	Yes	No	3-6473725-0
						Tin	Yes	Yes	No	3-6565239-0
34	12.8 .504	14.4 .567	17.8 .701	2.4 .094	3.0 .118	Tin	No	No	No	3-917294-4
						Tin	Yes	No	No	3-917300-4
40	15.2 .598	16.8 .661	20.2 .795	2.4 .094	3.0 .118	Tin	Yes	Yes	No	4-179397-0
						Tin	No	Yes	No	4-179403-0
						Gold	Yes	Yes	No	4-179703-0
						Gold	No	Yes	No	4-179704-0
50	19.2 .756	20.8 .819	24.2 .953	2.4 .094	3.0 .118	Tin	Yes	Yes	No	5-179397-0
						Tin	No	Yes	No	5-179403-0
						Gold	Yes	Yes	No	5-179703-0
						Gold	No	Yes	No	5-179704-0

Note: Part Numbers are RoHS compliant.

**4.0 [.157] and 4.5 [.177]
Stacking Heights**

Material and Finish

Housing — 46 Nylon, high heat resistant resin

Contacts — Copper alloy, gold plating or tin on contact area (see chart), tin on solder leads, with entire contact under-plated nickel

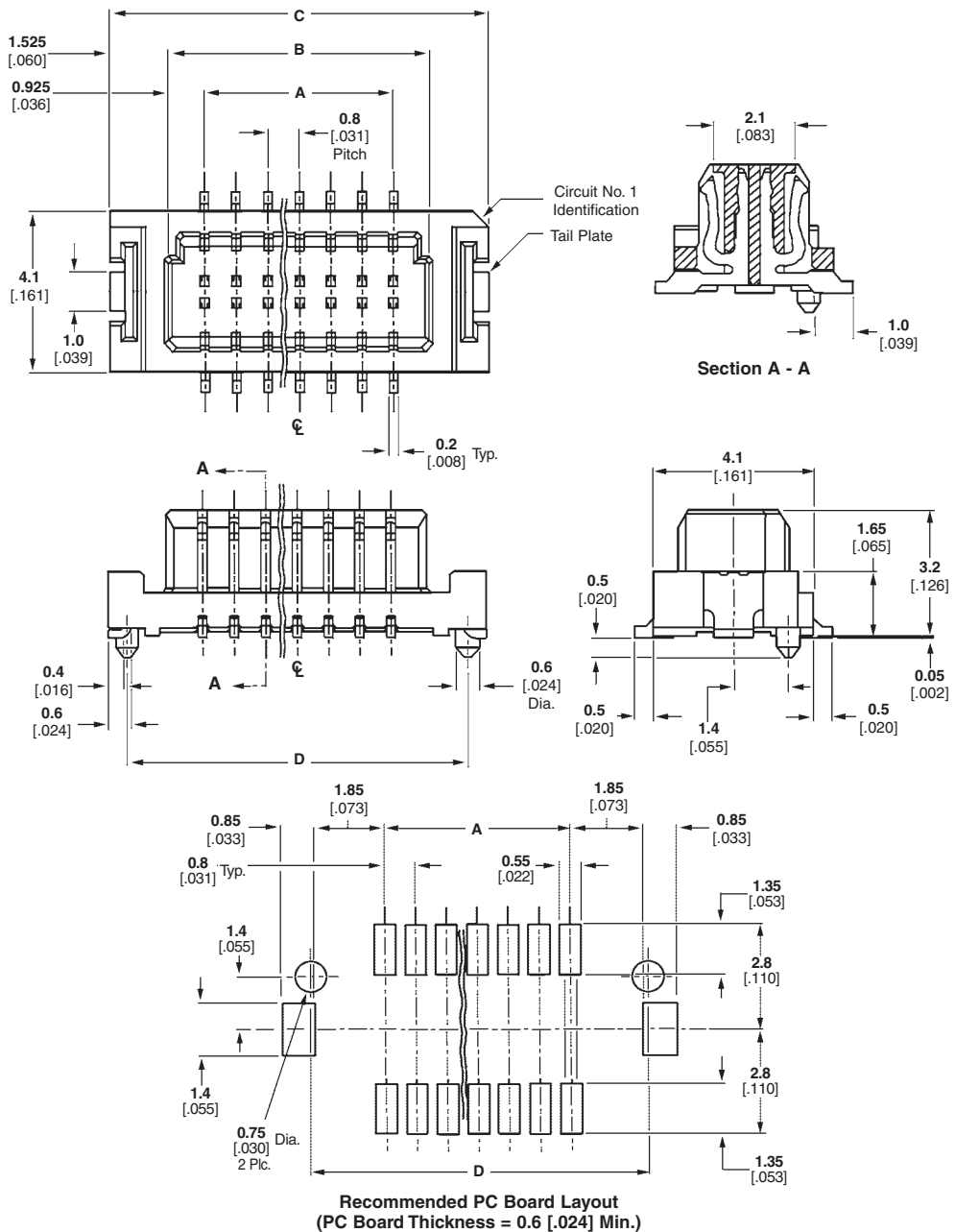
Related Product Data

Mating Tabs — page 69

Technical Documents (page 113)

Product Specification
108-5512

0.8mm Fine Mate Receptacles, 0.8 [.031] Pitch



No. of Positions	Dimensions				Keyed	With Boss	Part Number
	A	B	C	D			
10	3.2 .126	5.05 .199	8.1 .319	7.15 .281	Yes	Yes	1-5917408-0
	3.2 .126	5.05 .199	8.1 .319	—	Yes	No	1-5316657-0
22	8.0 .315	9.85 .388	12.9 .508	11.95 .470	Yes	Yes	2-5917408-2
50	19.2 .756	20.45 .805	23.5 .925	22.55 .888	No	Yes	5-5316464-0
60	23.2 .913	25.05 .986	28.1 1.106	27.15 1.069	Yes	Yes	6-5917408-0

Note: Part Numbers are RoHS compliant.

0.8mm Fine Mate Tabs, 0.8 [.031] Pitch

**4.0 [.157] and 4.5 [.177]
Stacking Heights**

Material and Finish

Housing — 46 Nylon, high heat resistant resin

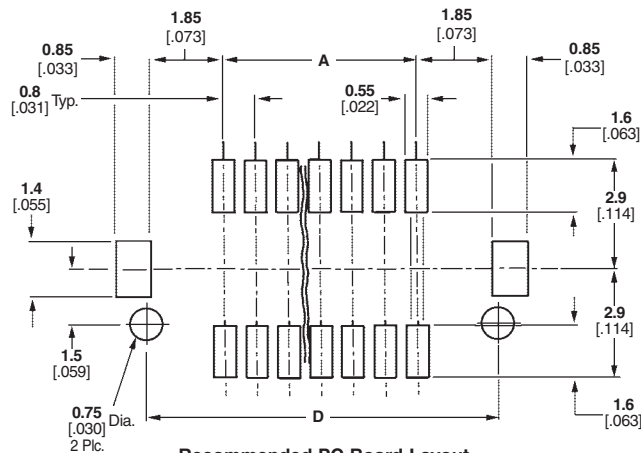
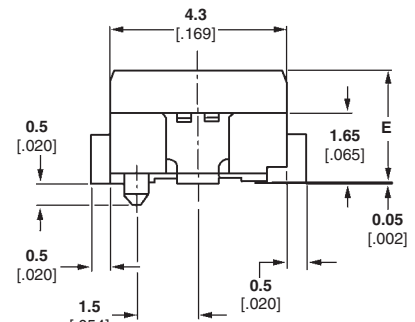
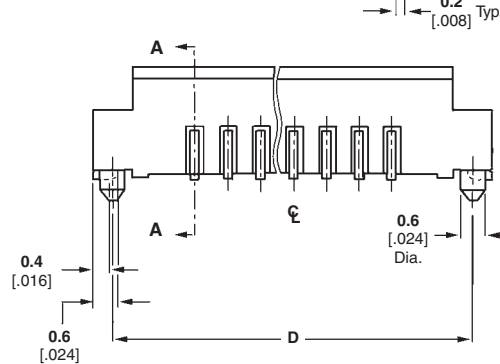
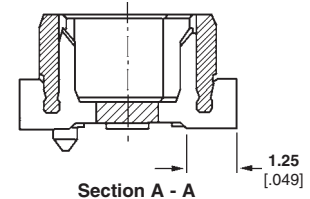
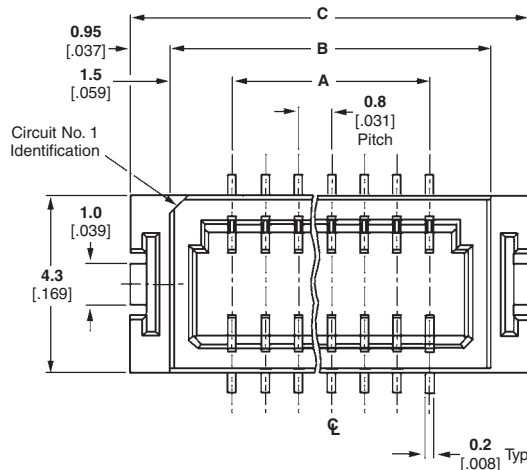
Contacts — Copper alloy, gold plating on contact area (see chart), tin on solder leads, with entire contact underplated nickel

Related Product Data

Mating Receptacles — page 68

Technical Documents (page 113)

Product Specification
108-5512



Recommended PC Board Layout
(PC Board Thickness = 0.6 [.024] Min.)

No. of Positions	Dimensions					Stacking Height	Keyed	With Boss	Part Number
	A	B	C	D	E				
10	3.2 .126	6.2 .244	8.1 .319	7.15 .281	2.7 .106	4.0 .157	Yes	Yes	1-5917407-0
	8.0 .315	11.0 .433	12.9 .508	11.95 .470	2.7 .106	4.0 .157	No	Yes	2-5316120-2
22	8.0 .315	11.0 .433	12.9 .508	11.95 .470	3.3 .130	4.5 .177	No	Yes	2-5917407-2
	19.2 .756	21.6 .850	23.5 .925	22.55 .888	3.3 .130	4.5 .177	No	Yes	5-5316466-0
60	23.2 .913	26.2 1.031	28.1 1.106	27.15 1.069	2.7 .106	4.0 .157	Yes	Yes	6-5316514-0

Note: Part Numbers are RoHS compliant.