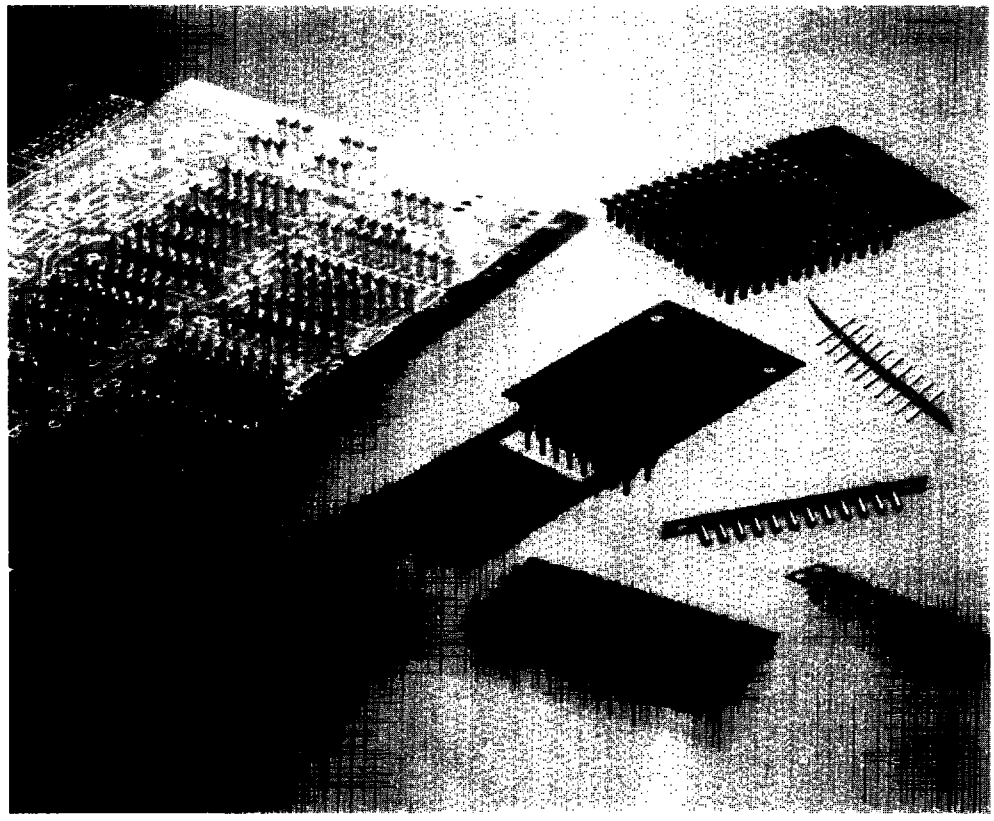
Film Carrier Sockets and Pins

Product Facts

- **Low profile — .015–.031 [0.38–0.78] above PC board**
- **Film carrier withstands temperatures to +400°C**
- **Manual assembly**
- **Closed Bottom — inhibits flux and solder wicking**
- **Ease of removing film carrier after soldering**
- **Visual inspection on both sides of pc board**
- **Excellent air flow around IC's**
- **Footprints to customer requirements**
- **Customer multiple footprints on single film carrier**

Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476

Certified by Canadian Standards Association, File No. LR7189A-97



AMP Film Carrier Sockets and Pins, ideal for extremely low-profile, high-density applications, are affixed to a disposable film carrier which is removed after soldering. The sockets are available in standard DIP, SIP, ZIP and PGA configurations, as well as in custom layouts and multiple patterns on a single carrier.

The sockets are compatible with vapor phase, infrared, hand and wave soldering. The socket/carrier assembly is manually placed on the board (Select surface mount assemblies can be robotically placed). Following soldering, the carrier is peeled away, leaving free-standing socket terminals that allow visual inspection, easy flux removal and excellent heat dissipation. The flexible carrier eliminates concern about contact damage during carrier insertion or extraction.

The sockets offer low height above the pc board (.015–.031 [0.38–0.78]), permit excellent air flow around ICs, and allow very dense packaging, with the smallest socket being .058 [1.47] in diameter.

Male pins that mate with the sockets are also available for modular board-to-board interconnection.

Performance Characteristics

Termination Resistance, Dry Circuit: 20 milliohms, max. initial

Vibration, Sinusoidal High Freq.: 15 G's between 10–2000 Hz

Physical Shock: 100 G's

Contact Retention: 7.5 lbs. [33.36 N]

Durability: 25 Cycles

Thermal Shock: −40°C to +125°C

Insertion and Withdrawal Force (Average):

Terminal Types	Force With .018 [0.46] Diameter Test Pin			
	Gold Plated Contact		Tin/Lead Plated Contact	
	Insertion	Withdrawal	Insertion	Withdrawal
A, L, M	2.65 oz. [75g]	1.41 oz. [40g]	—	—
B, C, D, F & K	2.65 oz. [75g]	1.59 oz. [45g]	8.82 oz. [250g]	2.65 oz. [75g]
E	3.53 oz. [100g]	2.12 oz. [60g]	12.34 oz. [350g]	5.29 oz. [150g]

Technical Documents

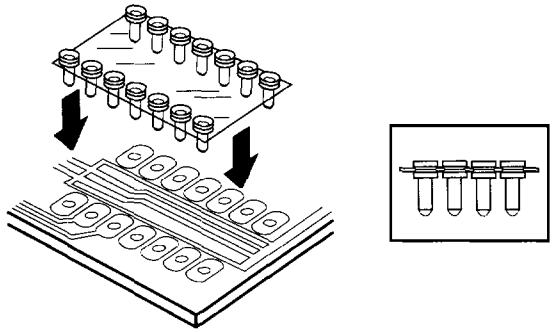
Product Specification: 108-1334

Qualification Test Report: 501-177

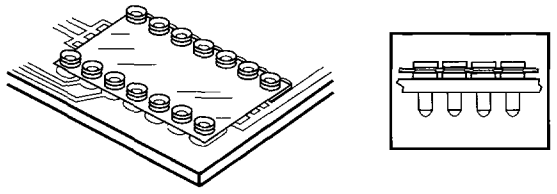
Film Carrier Sockets and Pins (Continued)

How to Use Film Carrier Sockets and Pins

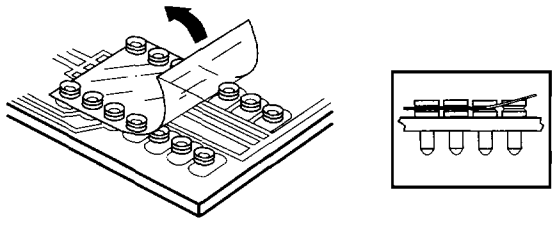
1. Place Film Carrier Socket in pc board.



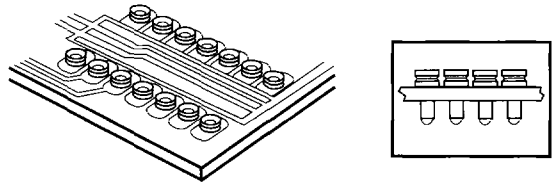
2. Send pc board and Film Carrier Socket through soldering operation.



3. Strip away film carrier.



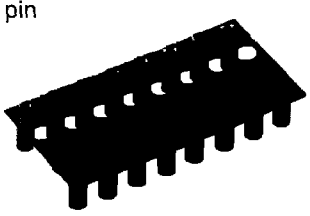
4. Free standing socket terminal for improved inspection, cleaning and dissipation of heat.

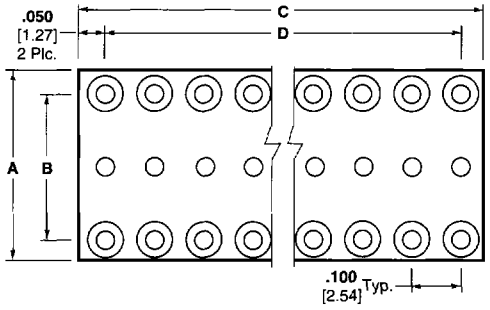


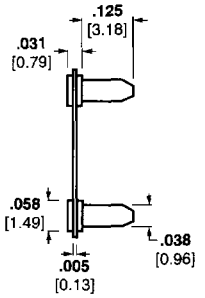
Film Carrier Sockets (Continued)

DIP Socket Assemblies

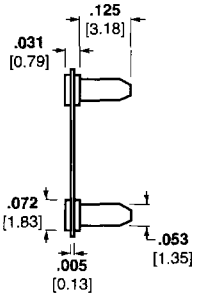
Sockets will accept a .016–.021 [0.41–0.53] diameter or .010 × .018 [0.25 × 0.46] rectangular pin







Type A



Type B

Materials

Film — Polyimide

Sleeves — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

Contacts — Beryllium Copper, 1/4 Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

Finish

Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel or .000150 [0.0038] to .000275 [0.00699] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Sleeves — .000200 [0.00508] to .000300 [0.00762] Tin/Lead Type 1 over 0.000050 [0.00127] to .000100 [0.00254] Nickel

Plating Specifications —
Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

No. of Pos.	Dimensions A	B	C	D	Terminal Types[1]	Minimum Acceptable Pin Length	Part Numbers Contact / Sleeve Tin	Contact / Sleeve Gold
8	.400 10.16	.300 7.62	.400 10.16	.300 7.62	A	.090 2.29	—	382522-8
					B	.075 1.91	382447-8	382459-8
14	.400 10.16	.300 7.62	.700 17.78	.600 15.24	A	.090 2.29	—	1-382522-4
					B	.075 1.91	1-382447-4	1-382459-4
16	.400 10.16	.300 7.62	.800 20.32	.700 17.78	A	.090 2.29	—	1-382522-6
					B	.075 1.91	1-382447-6	1-382459-6
18	.400 10.16	.300 7.62	.900 22.86	.800 20.32	A	.090 2.29	—	1-382522-8
					B	.075 1.91	1-382447-8	1-382459-8
20	.400 10.16	.300 7.62	1.000 25.40	.900 22.86	A	.090 2.29	—	2-382522-0
					B	.075 1.91	2-382447-0	2-382459-0
24	.400 10.16	.300 7.62	1.200 30.48	1.100 27.94	A	.090 2.29	—	2-382522-4
					B	.075 1.91	2-382447-4	2-382459-4
28	.700 17.78	.600 15.24	1.400 35.56	1.300 33.02	A	.090 2.29	—	2-382522-8
					B	.075 1.91	2-382447-8	2-382459-8
32	.700 17.78	.600 15.24	1.600 40.64	1.500 38.10	A	.090 2.29	—	3-382522-2
					B	.075 1.91	3-382447-2	3-382459-2
40	.700 17.78	.600 15.24	2.000 50.80	1.900 48.26	A	.090 2.29	—	4-382522-0
					B	.075 1.91	4-382447-0	4-382459-0
64	1.000 25.40	.900 22.86	3.200 81.28	3.100 78.74	A	.090 2.29	—	6-382522-4
					B	.075 1.91	6-382447-4	6-382459-4

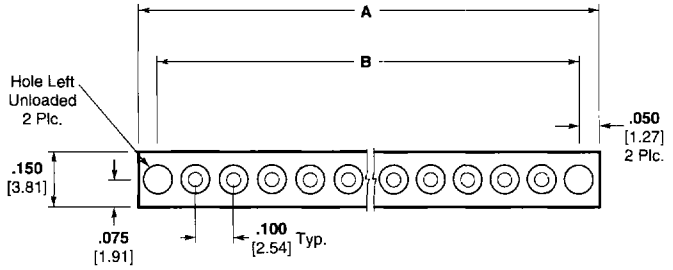
[1]Standard terminal types are listed on pages 160 and 161.
Any terminal type can be made available in this configuration; contact AMP Incorporated.

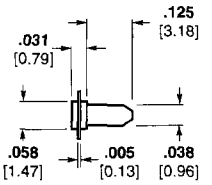
Note: See page 159 for samples of terminal types for customer evaluation.

Film Carrier Sockets (Continued)

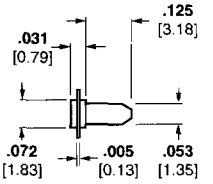
SIP Socket Assemblies

Sockets will accept a .016–.021 [0.41–0.53] diameter or .010 × .018 [0.25 × 0.46] rectangular pin





Type A



Type B

Materials

Film — Polyimide

Sleeves — Brass, ½ Hard Composition 22, Copper Alloy 360, QQ-B-626

Contacts — Beryllium Copper, ¼ Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

Finish

Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel or .000150 [0.0038] to .000275 [0.00699] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Sleeves — .000200 [0.00508] to .000300 [0.00762] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Plating Specifications —
Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

No. of Pos.	Dimensions A	Dimensions B	Terminal Types[1]	Minimum Acceptable Pin Length	Part Numbers Contact / Sleeve Tin	Part Numbers Contact / Sleeve Gold / Tin
8	**1.000** 25.40	**.900** 22.86	A	**.090** 2.29	—	382521-8
			B	**.075** 1.91	382445-8	382495-8
10	**1.200** 30.48	**1.100** 27.94	A	**.090** 2.29	—	1-382521-0
			B	**.075** 1.91	1-382445-0	1-382495-0
12	**1.400** 35.56	**1.300** 33.02	A	**.090** 2.29	—	1-382521-2
			B	**.075** 1.91	1-382445-2	1-382495-2
14	**1.600** 40.64	**1.500** 38.10	A	**.090** 2.29	—	1-382521-4
			B	**.075** 1.91	1-382445-4	1-382495-4
16	**1.800** 45.72	**1.700** 43.18	A	**.090** 2.29	—	1-382521-6
			B	**.075** 1.91	1-382445-6	1-382495-6
20	**2.200** 55.88	**2.100** 53.34	A	**.090** 2.29	—	2-382521-0
			B	**.075** 1.91	2-382445-0	2-382495-0
24	**2.600** 66.04	**2.500** 63.50	A	**.090** 2.29	—	2-382521-4
			B	**.075** 1.91	2-382445-4	2-382495-4
100	**10.200** 259.08	**10.100** 256.54	A	**.090** 2.29	—	382521-1
			B	**.075** 1.91	382445-1	382495-1

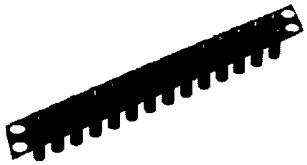
[1]Standard terminal types are listed on pages 160 and 161.
Any terminal type can be made available in this configuration; contact AMP Incorporated.

Note: See page 159 for samples of terminal types for customer evaluation.

Film Carrier Sockets (Continued)

ZIP Socket Assemblies

Sockets will accept a .016–.021 [0.41–0.53] diameter or .010 × .018 [0.25 × 0.46] rectangular pin



Materials

Film — Polyimide

Sleeves — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

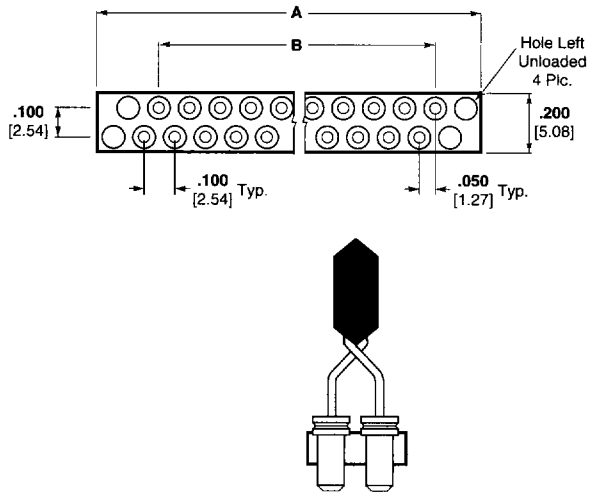
Contacts — Beryllium Copper, 1/4 Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

Finish

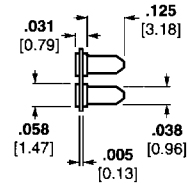
Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel or .000150 [0.0038] to .000275 [0.00699] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Sleeves — .000200 [0.00508] to .000300 [0.00762] Tin/Lead Type 1 over 0.000050 [0.00127] to .000100 [0.00254] Nickel

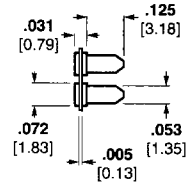
Plating Specifications —
Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728



Typical Assembly View



Type A



Type B

No. of Pos.	Dimensions A	Dimensions B	Terminal Types[1]	Minimum Acceptable Pin Length	Part Numbers Contact Tin / Sleeve Tin	Part Numbers Contact Gold / Sleeve Tin
20	1.250 31.75	.900 22.86	A	.090 2.29	—	2-382520-0
			B	.075 1.91	2-382448-0	2-382458-0
24	1.450 36.83	1.100 27.94	A	.090 2.29	—	1-382520-4
			B	.075 1.91	2-382448-4	2-382458-4
28	1.650 41.91	1.300 33.02	A	.090 2.29	—	2-382520-8
			B	.075 1.91	2-382448-8	2-382458-8
40	2.250 57.15	1.900 48.26	A	.090 2.29	—	4-382520-0
			B	.075 1.91	4-382448-0	4-382458-0

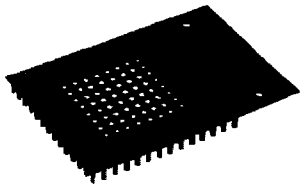
[1]Standard terminal types are listed on pages 160 and 161.
Any terminal type can be made available in this configuration; contact AMP Incorporated.

Note: See page 159 for samples of terminal types for customer evaluation.

Film Carrier Sockets (Continued)

PGA Socket Assemblies

Sockets will accept a .016–.021 [0.41–0.53] diameter or .010 × .018 [0.25 × 0.46] rectangular pin



Materials

Film — Polyimide

Sleeves — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

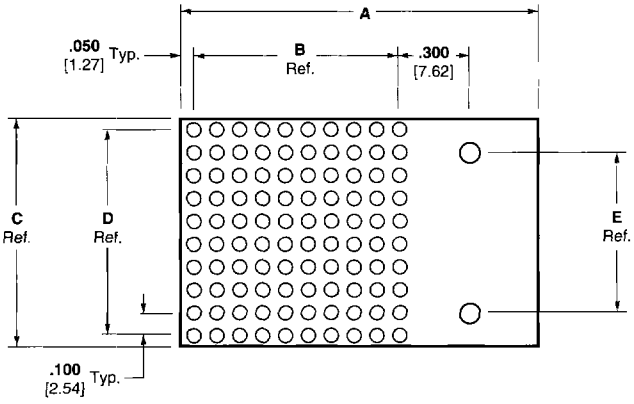
Contacts — Beryllium Copper, 1/4 Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

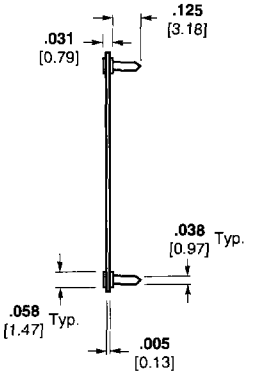
Finish

Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel

Sleeves — .000200 [0.00508] Tin/Lead over 0.000050 [0.00127] Nickel

Plating Specifications — Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728





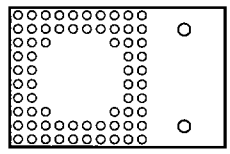
Grid Size	No. of Pos.	Dimensions A	B	C	D	E	Terminal Type[1]	Minimum Acceptable Pin Length	Base Part Number[2]
10×10	68, 84 and 100	**1.550** 39.37	**.900** 22.86	**1.000** 25.40	**.900** 22.86	**.700** 17.78	A	**.090** 2.29	382450
11×11	68, 84 and 121	**1.650** 41.91	**1.000** 25.40	**1.100** 27.94	**1.000** 25.40	**.800** 20.32	A	**.090** 2.29	382451
13×13	114, 121 and 169	**1.850** 46.99	**1.200** 30.48	**1.300** 33.02	**1.200** 30.48	**1.000** 25.40	A	**.090** 2.29	382453
14×14	132 and 196	**1.950** 49.53	**1.300** 33.02	**1.400** 35.56	**1.300** 33.02	**1.100** 27.94	A	**.090** 2.29	382454
15×15	145, 149 and 181	**2.050** 52.07	**1.400** 35.56	**1.500** 38.10	**1.400** 35.56	**1.200** 30.48	A	**.090** 2.29	382455
17×17	168 and 169	**2.250** 57.15	**1.600** 40.64	**1.700** 43.18	**1.600** 40.64	**1.400** 35.56	A	**.090** 2.29	382457
							L[3]	**.090** 2.29	382684
19×19	238 and 280	**2.450** 62.23	**1.800** 45.72	**1.900** 48.26	**1.800** 45.72	**1.600** 40.64	L[3]	**.090** 2.29	382685
21×21	273	**2.650** 67.31	**2.000** 50.80	**2.100** 53.34	**2.000** 50.80	**1.800** 45.72	L[3]	**.090** 2.29	382686

[1]Standard terminal types are listed on pages 160 and 161.
[2]See pages 154 and 155 for patterns and part number suffixes.
[3]Low force, staggered contacts. See page 162 for Type L cross-section.
Any terminal type can be made available in this configuration; contact AMP Incorporated.

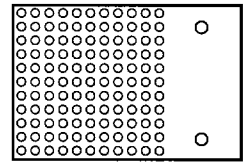
Note: See page 159 for samples of terminal types for customer evaluation.

Film Carrier Sockets — PGA Grid Patterns

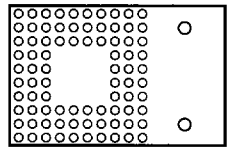
10 x 10
68 Position
Part No. 382450-1



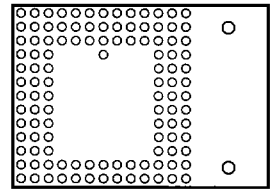
11 x 11
121 Position
Part No. 382451-3



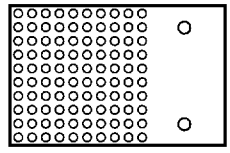
10 x 10
84 Position
Part No. 382450-2



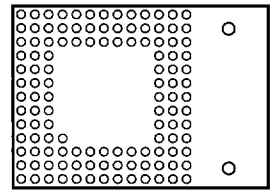
13 x 13
114 Position
Part No. 382453-1



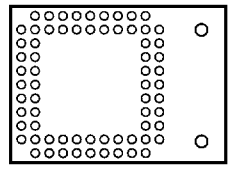
10 x 10
100 Position
Part No. 382450-3



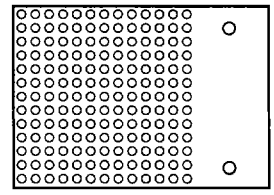
13 x 13
121 Position
Part No. 382453-2



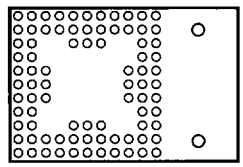
11 x 11
68 Position
Part No. 382451-1



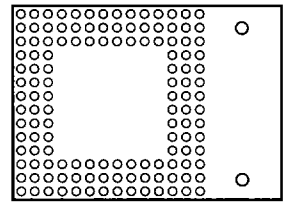
13 x 13
169 Position
Part No. 382453-3



11 x 11
84 Position
Part No. 382451-2

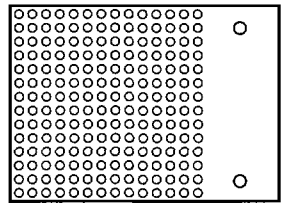


14 x 14
132 Position
Part No. 382454-1

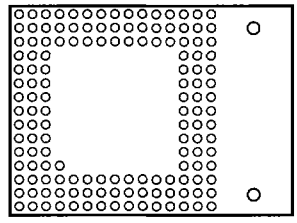


Film Carrier Sockets — PGA Grid Patterns (Continued)

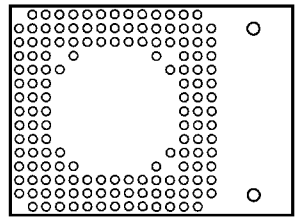
14 x 14
196 Position
Part No. 382454-2



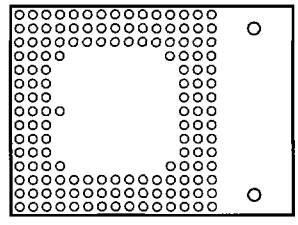
15 x 15
145 Position
Part No. 382455-1



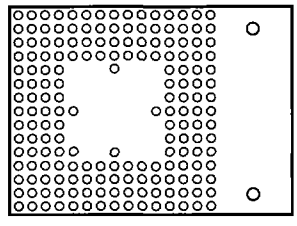
15 x 15
149 Position
Part No. 382455-2



15 x 15
149 Position
Part No. 382455-3

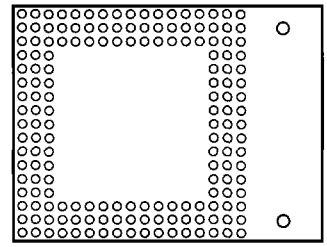


15 x 15
181 Position
Part No. 382455-4

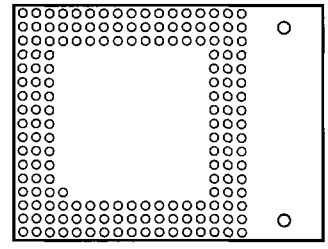


[1]Low force, staggered contacts.

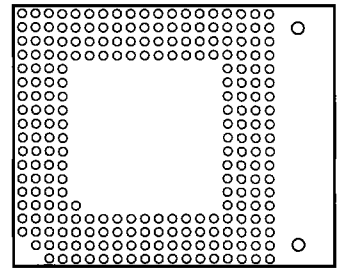
17 x 17
168 Position
Part No. 382457-1
Part No. 382684-1[1]



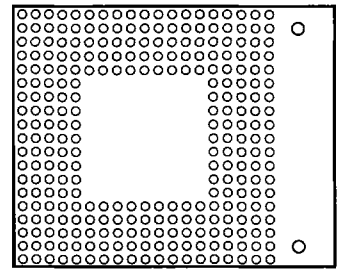
17 x 17
169 Position
Part No. 382457-2
Part No. 382684-2[1]



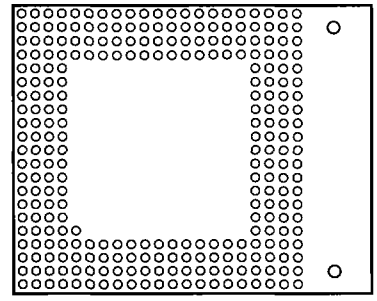
19 x 19
238 Position
Part No. 382685-1[1]



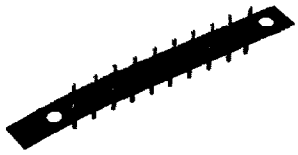
19 x 19
280 Position
Part No. 382685-2[1]



21 x 21
273 Position
Part No. 382686-1[1]



Film Carrier Pins



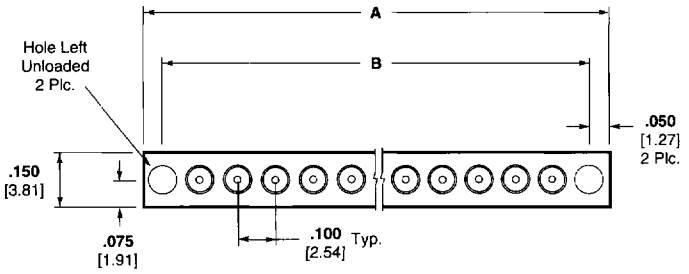
Materials

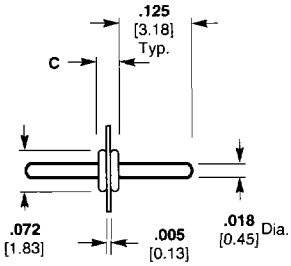
Film — Polyimide
Sleeves — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

Finish

Terminals —
Gold .000010 [0.00025] over .000050 [0.00127] Nickel
Tin/Lead .000200 [0.00508] over .000050 [0.00127] Nickel

Plating Specifications —
Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

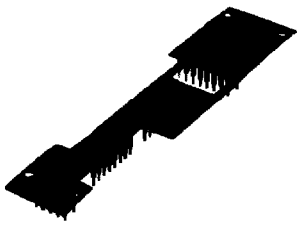




No. of Pos.	Terminal Type[1]	Dimensions			Part Numbers	
		A	B	C	Terminal	
					Tin	Gold
8	G	**1.000** 25.40	**.900** 22.86	**.030** 0.76	382449-8	382490-8
	H	**1.000** 25.40	**.900** 22.86	**.070** 1.78	382460-8	—
	J	**1.000** 25.40	**.900** 22.86	**.085** 2.16	382461-8	—
10	G	**1.200** 30.48	**1.100** 27.94	**.030** 0.76	1-382449-0	1-382490-0
	H	**1.200** 30.48	**1.100** 27.94	**.070** 1.78	1-382460-0	1-382492-0
	J	**1.200** 30.48	**1.100** 27.94	**.085** 2.16	1-382461-0	1-382494-0
12	G	**1.400** 35.56	**1.300** 33.02	**.030** 0.76	1-382449-2	1-382490-2
14	G	**1.600** 40.64	**1.500** 38.10	**.030** 0.76	1-382449-4	1-382490-4
16	G	**1.800** 45.72	**1.700** 43.18	**.030** 0.76	1-382449-6	1-382490-6
20	G	**2.200** 55.88	**2.100** 53.34	**.030** 0.76	2-382449-0	2-382490-0
24	G	**2.600** 66.04	**2.500** 63.05	**.030** 0.76	2-382449-4	2-382490-4
100	G	**10.200** 259.08	**10.100** 256.54	**.030** 0.76	382449-1	382490-1

[1]Standard terminal types are listed on pages 160 and 161.
Any terminal type can be made available in this configuration; contact AMP Incorporated.
Note: See page 159 for samples of terminal types for customer evaluation.

Custom Sheets of Sockets



Maximize Your Socket Loading Rate with Sheets of Sockets

This unique concept in terminal loading, features all the standard advantages of film carrier sockets plus an exceptionally fast pc board loading rate of pins or socket positions.

No expensive tooling or machinery is required. Just send your pc board or copy of artwork to us. AMP will produce a finished sheet loaded with sockets and ready for your soldering operation.

Cut out areas for loading caps, resistors, IC's or other hardware may be incorporated into the sheet.

Ordering Information

For custom sheets of sockets, send the following information:

- Artwork, pc board or drawing of pc board.
- Locate cutout requirements for high profile pc board components.
- Specify terminal type (Example, A or B, etc. and plating combination gold/tin, gold/gold or tin/tin).

Materials

Film — Polyimide

Terminals — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

Contacts — Beryllium Copper, 1/4 Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

Finish

Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel or .000150 [0.0038] to .000275 [0.00699] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Sleeves — .000200 [0.00508] to .000300 [0.00762] Tin/Lead Type 1 over 0.000050 [0.00127] to .000100 [0.0025] Nickel

Plating Specifications — Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

Loading Rate

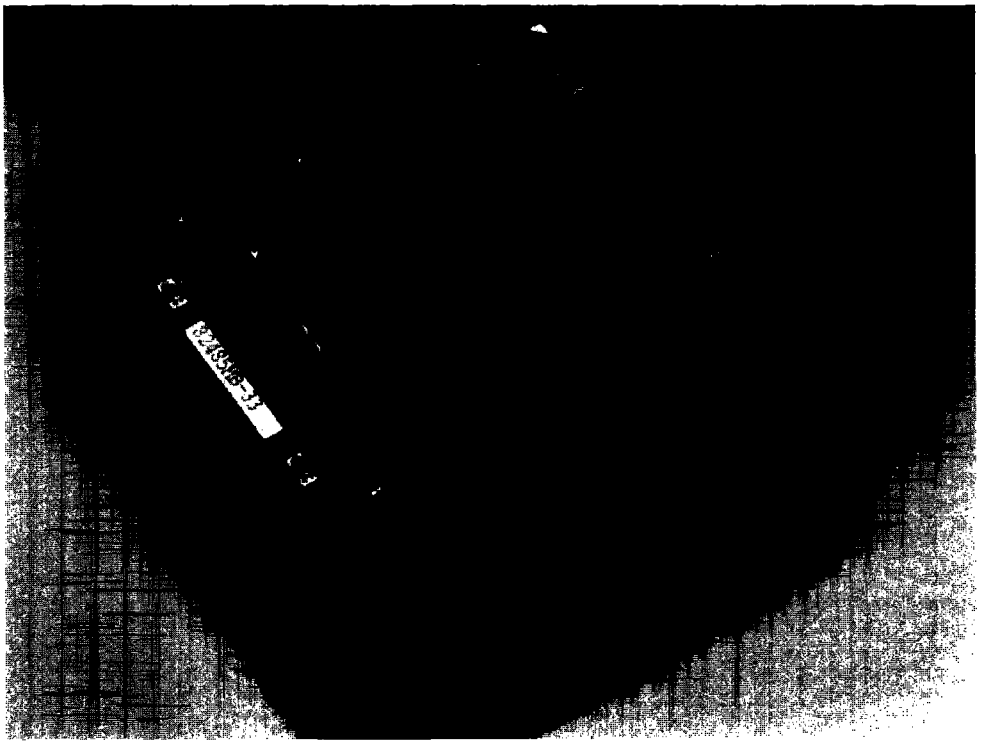
Loading Rate per Sheet	Pins Per Board/Sheet	Pins Loaded per Hour
20 Seconds Typical[1]	100	18,000
	500	90,000
	1,000	180,000
	2,000	360,000
	3,000	540,000
	4,000	720,000
	5,000	900,000
	10,000	1,800,000

[1]Loading rate shown will vary with operator's skill.

Note: Also available upon request are custom sheets of sockets configured as Side-by-Side and End-to-End DIPS.

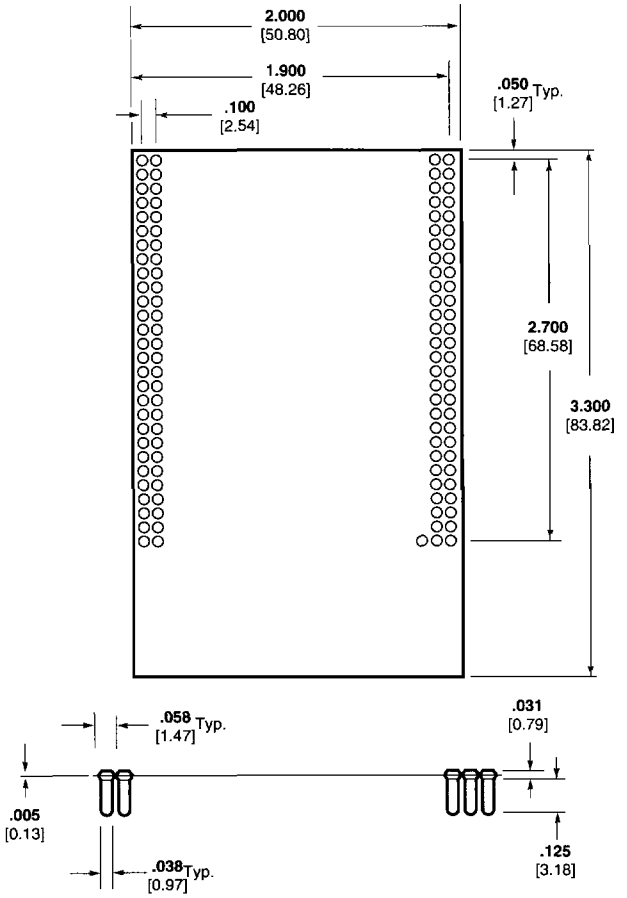
Custom Sheets of Sockets (Continued)

20 × 28 PGA Film Carrier Socket for Intel® Turbocache Controller 82485 Part No. 382518-1



AMP Film Carrier Sockets, such as the 20 × 28 PGA custom designed socket for Intel's Turbocache Controller 82485 shown here, are ideal for extremely low-profile, high-density applications.

The socket and film carrier withstand temperatures ranging from −259°C to +400°C for compatibility with vapor phase, infrared, hand and wave soldering. The socket/carrier assembly is manually placed on the board. Following soldering, the carrier is peeled away, leaving free-standing socket terminals that allow visual inspection, easy flux removal and excellent heat dissipation. The flexible carrier eliminates concern about contact damage during carrier insertion or extraction.



For drawings, technical data or samples, contact your AMP sales engineer or call the AMP Product Information Center: 1-800-522-6752.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

Film Carrier Socket and Pin Types for Terminal Evaluation

SIP Socket

Materials

Film — Polyimide

Sleeves — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

Contacts — Beryllium Copper, 1/4 Hard Copper Alloy 172 ASTM-8-194, QQ-C-533, Heat Treated

Finish

Contacts — .000030 [0.00076] Gold over .000050 [0.00127] Nickel or .000150 [0.0038] to .000275 [0.00699] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

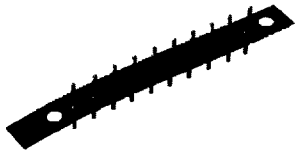
Sleeves — .000010 [0.00025] Gold over .000050 [0.00127] Nickel or .000200 [0.00508] to .000300 [0.00762] Tin/Lead Type 1 over .000050 [0.00127] to .000100 [0.00254] Nickel

Plating Specifications — Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

No. of Pos.	Terminal Type[1]	Part Numbers		
		Contact / Sleeve Tin / Tin	Contact / Sleeve Gold / Tin	Contact / Sleeve Gold / Gold
10	A	—	1-382521-0	1-382511-0
	B	1-382445-0	1-382495-0	1-382509-0
	C	1-382499-0	1-382500-0	1-382501-0
	D	1-382496-0	1-382497-0	1-382498-0
	E	1-382505-0	1-382506-0	1-382507-0
	F	1-382502-0	1-382503-0	1-382504-0

[1]See page 160 for terminal types.

Pin



Materials

Film — Polyimide

Terminals — Brass, 1/2 Hard Composition 22, Copper Alloy 360, QQ-B-626

Finish

Terminals — .000010 [0.00025] Gold over .000050 [0.00127] Nickel or .000200 [0.00508] Tin/Lead over .000050 [0.00127] Nickel

Plating Specifications — Nickel per QQ-N-290
Gold per MIL-G-45204
Tin/Lead per MIL-P-81728

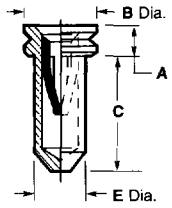
No. of Pos.	Terminal Type[1]	Part Numbers	
		Terminals	
		Tin	Gold
10	G	1-382449-0	1-382490-0
	H	1-382460-0	1-382492-0
	J	1-382461-0	1-382494-0

[1]See page 161 for terminal types.

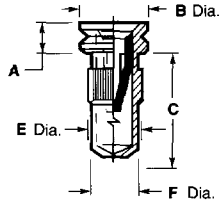
Terminal Types — Sockets

Sockets will accept a .016–.021 [0.41–0.53]
diameter or .010 × .018 [0.25 × 0.46] rectangular pin

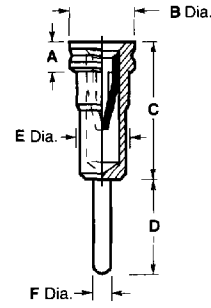
A, B, L and M



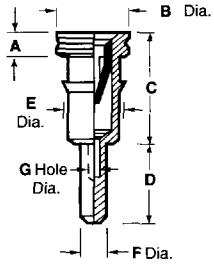
C



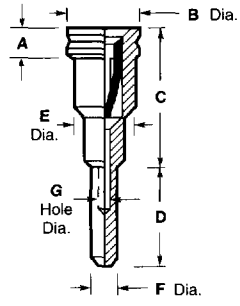
D



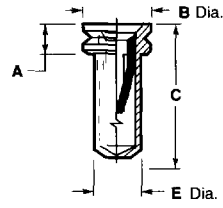
E



F



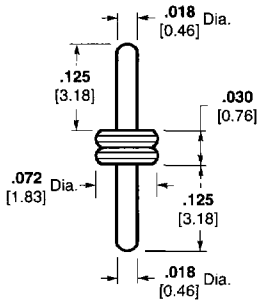
K



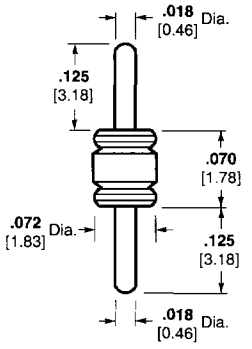
Terminal Type	Minimum Acceptable Pin Length	Dimensions						
		A	B Dia.	C	D Dia.	E Dia.	F Dia.	G Dia.
A	**.100** 2.54	**.031** 0.79	**.058** 1.47	**.124** 3.15	—	**.038** 0.97	—	—
B	**.110** 2.79	**.031** 0.79	**.072** 1.83	**.125** 3.18	—	**.053** 1.35	—	—
C	**.110** 2.79	**.031** 0.79	**.072** 1.83	**.125** 3.18	—	**.059** 1.50	**.052** 1.32	—
D	**.110** 2.79	**.031** 0.79	**.072** 1.83	**.165** 4.19	**.125** 3.18	**.056** 1.42	**.020** 0.51	—
E	**.090** 2.29	**.031** 0.79	**.072** 1.83	**.095** 2.41	**.095** 2.41	**.053** 1.50	**.028** 0.71	**.021** 0.53
F	**.110** 2.79	**.031** 0.79	**.072** 1.83	**.120** 3.05	**.140** 3.56	**.059** 1.50	**.028** 0.71	**.021** 0.53
K	**.070** 1.78	**.031** 0.79	**.072** 1.83	**.095** 2.41	—	**.064** 1.63	**.053** 1.35	—
L	**.100** 2.54	**.031** 0.79	**.058** 1.47	**.124** 3.15	—	**.034** 0.86	—	—
M	**.100** 2.54	**.015** 0.38	**.058** 1.47	**.140** 3.56	—	**.034** 0.86	—	—

Terminal Types — Pins

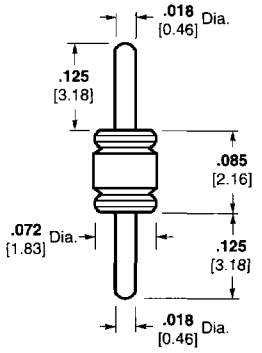
G



H



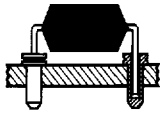
J



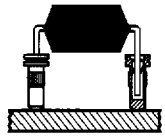
Application Options

For IC Devices

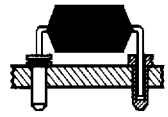
Type A, B and M
Near Flush Mount
Typical Assembly



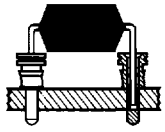
Type C and K
Surface Mount
Typical Assembly



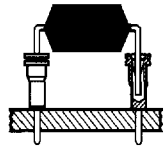
Type D
Ultra Low Profile
Typical Assembly



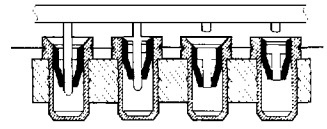
Type E
Very Low Profile
Solder Tail
Typical Assembly



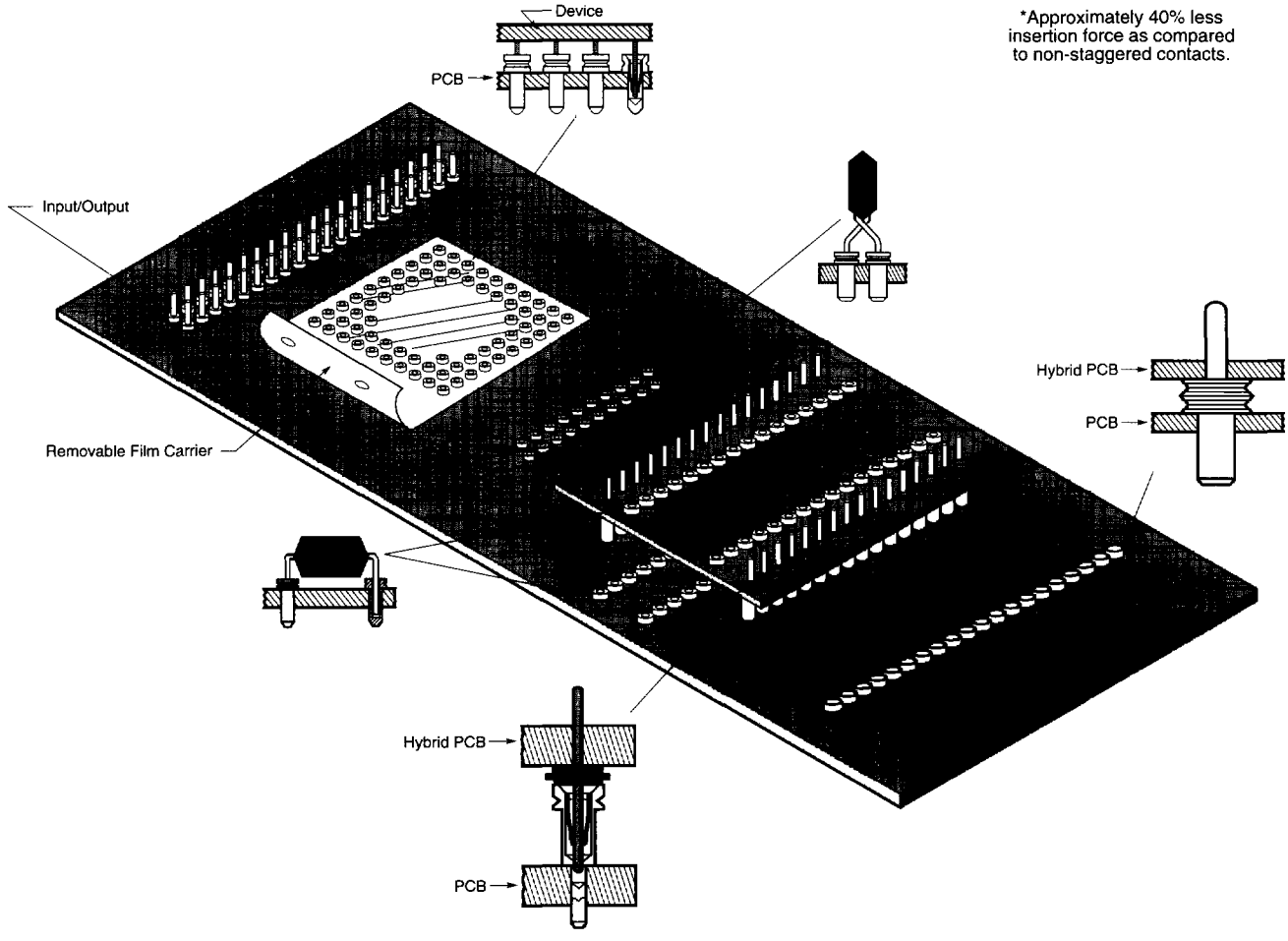
Type F
Low Profile
Solder Tail Standoff
Typical Assembly



Type L
Low Insertion Force*
Staggered Contact Depth



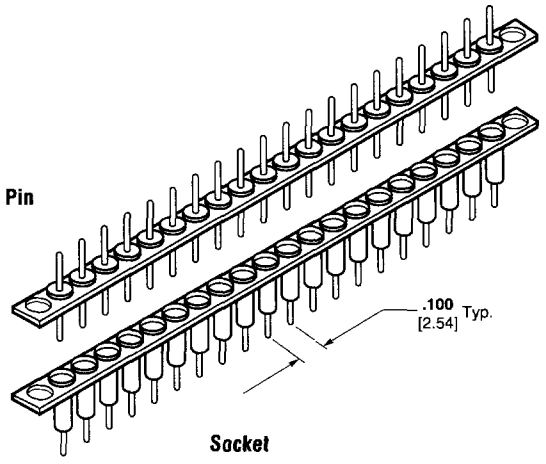
*Approximately 40% less insertion force as compared to non-staggered contacts.

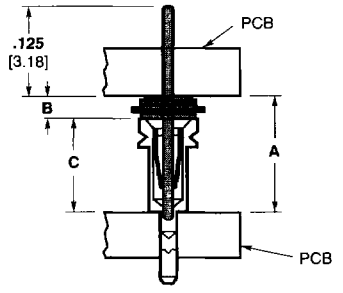


Application Options (Continued)

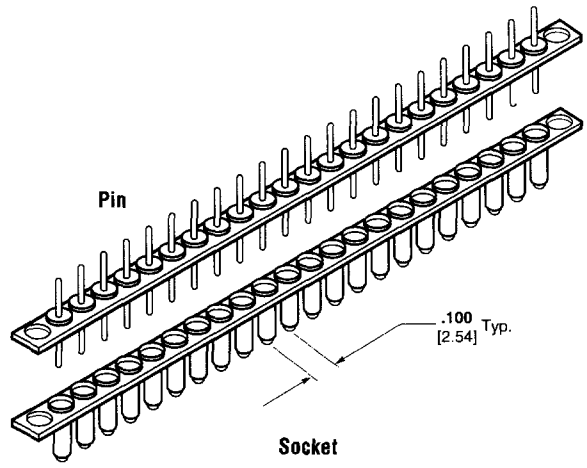
For Board-to-Board Interconnection

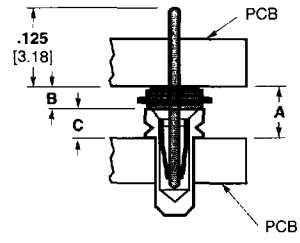
Socket Types D or E





Socket Type A





Pin Assemblies	Dimensions			Socket Assemblies
Pin Type[1]	A	B	C	Terminal Type[2]
G	.125 3.18	.030 0.76	.095 2.41	E
H	.165 4.19	.070 1.78	.095 2.41	E
J	.180 4.57	.085 2.16	.095 2.41	E
G	.195 4.95	.030 0.76	.165 4.19	D
H	.235 5.97	.070 1.78	.165 4.19	D
J	.250 6.35	.085 2.16	.165 4.19	D

[1]See page 161 for pin types.
[2]See page 160 for terminal types.

Pin Assemblies	Dimensions			Socket Assemblies
Pin Type[1]	A	B	C	Terminal Type[2]
G	.060 1.52	.030 0.76	.030 0.76	A
H	.100 4.19	.070 1.78	.030 0.76	A
J	.115 2.92	.085 2.16	.030 0.76	A

[1]See page 161 for pin types.
[2]See page 160 for terminal types.