

*Electronics*

**FASTON Printed Circuit Board Tabs and Receptacles**

**Product Facts**

- Full line of PCB tabs and receptacles
- Straight and right angle tabs available in .250, .187 and .110 series
- Receptacles produced in .250/.205 x .032 or .025. Standard or low insertion force receptacles available.
- Strip product for automatic insertion
- Compatible with industry insertion equipment or full line of equipment available from Tyco Electronics



Tyco Electronics now offers a complete line of Printed Circuit Board tabs and receptacles. Tyco Electronics PCB product can be found in switches and on control boards around the world. Our product offering includes .250, .187 and .110 series vertical tabs, .250 and .187 right angle tabs and .250/.205 vertical receptacles. Product is available in loose piece and strip form. In a short time, our product offering has grown from a handful of part numbers to over four dozen salable parts. We continue to add to our product family as design changes, innovation and customers' requirements expand.

Insertion equipment is available for our entire strip product. The semi-automatic, air-powered Modular Insertion System (MIS) Bench machine is available for customers with moderate insertion requirements. The compact, fully automatic Comp-U-Sertor II machine is available for applications where larger volumes will be inserted and where programmable, microprocessor controlled equipment is desired. Insertion heads for both pieces of equipment are interchangeable, requiring less equipment investment. Tyco Electronics will also custom build a complete "pass through" system for high-end customer applications.

The Tyco Electronics product has been designed to be compatible with industry insertion equipment. In many cases, this product will work as a "drop in" replacement for existing product. In some cases, slight modifications or minor tooling changes are necessary. Please consult Technical Support or the Global Applications Tooling Group for more details.

Tyco Electronics is one of the only companies that offers printed circuit board tabs and receptacles as well as the crimp to wire receptacles and tabs that offer a complete solution for your packaging needs.

**FASTON Printed Circuit Board Tabs and Receptacles** (Continued)

**250 Series Printed Circuit Board Tabs**

Stock Thickness — .032 [0.81]

Board Hole Size —  
.055 ± .002 [1.40 ± 0.05] Dia.

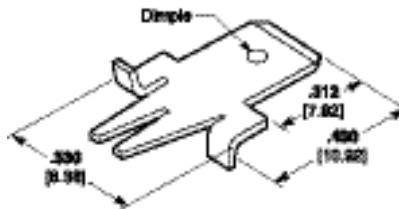


W Piece <sup>1</sup>	Dimensions			Material and Finish	UL	SP <sup>2</sup>	Terminal Part No.	
	L	K	E				Strip <sup>2</sup>	Loos
.312 7.92	.502 12.75	.125 3.18	.312 7.92	Tin Plated Brass	X	X	63839-1 <sup>3</sup>	—
	.547 13.89	.157 3.99	.312 7.92	Tin Plated Brass	X	X	63986-1	—
	.552 14.02	.150 3.81	.312 7.92	Tin Plated Brass	—	—	1217566-1	—
.295 7.49	.622 15.80	.125 3.18	.312 7.92	Tin Plated Brass	X	X	—	62409-1 <sup>3</sup>
							—	1217056-1
.280 7.11	.487 12.37	.125 3.18	.312 7.92	Tin Plated Brass	X	X	62650-1 <sup>3</sup>	—
	.532 13.51	.175 4.45	.312 7.92	Tin Plated Brass	X	X	63650-1 <sup>3</sup>	—
	.622 15.80	.125 3.18	.452 11.48	Tin Plated Brass	X	X	—	63900-1
					—	—	63755-1 <sup>3</sup>	—

<sup>1</sup> Board Hole Size: .060/.053 [1.52/1.35] Dia.  
<sup>2</sup> Insertion equipment available.

Stock Thickness — .032 [0.81]

Board Hole Size —  
.100 ± .002 [2.54 ± 0.05] Dia.



Material and Finish	UL	SP <sup>2</sup>	Terminal Part No.	
			Strip <sup>1</sup>	Loose Piece
Tin Plated Brass	X	X	63066-1	63067-1

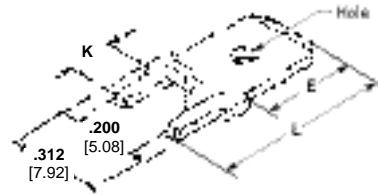
<sup>1</sup> Insertion equipment available.

**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

**250 Series Printed Circuit Board Tabs (Continued)**

Stock Thickness — .032 [0.81]

Board Hole Size —  
.055 ± .002 [1.40 ± 0.05] Dia.



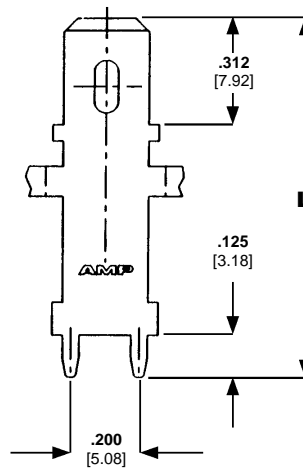
Dimensions			Material and Finish	UL	SP	Terminal Part No.	
L	K	E				Strip <sup>1</sup>	Loose Piece
<b>.552</b> 14.02	<b>.150</b> 3.81	<b>.312</b> 7.92	Tin Plated Brass	X	X	63862-1 <sup>2</sup>	—
<b>.582</b> 14.78	<b>.180</b> 4.57	<b>.312</b> 7.92	Tin Plated Brass	X	X	1217136-1	—
<b>.650</b> 16.51	<b>.150</b> 3.81	<b>.410</b> 10.41	Tin Plated Brass	X	X	1217126-1 <sup>2</sup>	—
<b>.710</b> 18.03	<b>.150</b> 3.81	<b>.470</b> 11.94	Tin Plated Brass	—	—	1217125-1	1217169-1
<b>.780</b> 26.18	<b>.150</b> 3.81	<b>.540</b> 13.72	Tin Plated Brass	—	—	1217127-1	—
				X	X	—	1217167-1

<sup>1</sup> Insertion equipment available.  
<sup>2</sup> Dimple.

Printed Circuit Board  
Tabs and Receptacles

Stock Thickness — .032 [0.81]

Board Hole Size —  
.055 ± .002 [1.40 ± 0.05] Dia.



Dimension L	Material and Finish	UL	SP	Terminal Part No.
<b>1.062</b> 26.97	Tin Plated Brass	X	X	63949-1
<b>1.207</b> 30.66	Tin Plated Brass	X	X	63950-1

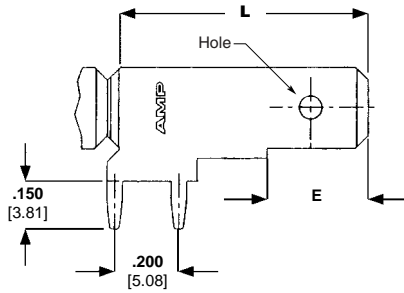
**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

**250 Series Printed Circuit Board Tabs (Continued)**

**Right Angle Printed Circuit Board Tab**

Stock Thickness — .032 [0.81]

Board Hole Size —  
.055 ± .002 [1.40 ± 0.05] Dia.



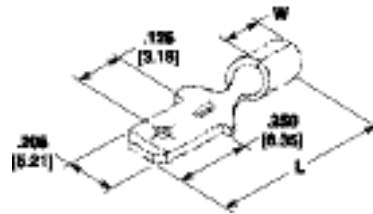
Dimensions		Material and Finish	UL	SP	Terminal Part No.	
E	L				Strip <sup>1</sup>	Loose Piece
.312 7.92	.800 20.32	Tin Plated Brass	X	X	63951-1	1217754-1
.358 9.09	.630 16.00	Tin Plated Brass	—	—	928814-1	—
.738 18.74	1.00 25.40	Tin Plated Brass	—	—	63952-1	—

<sup>1</sup> Insertion equipment available.

**205 Series Printed Circuit Board Only**

Stock Thickness — .020 [0.51]

Board Hole Size —  
.100 – .095 [2.54 – 2.41] Dia.

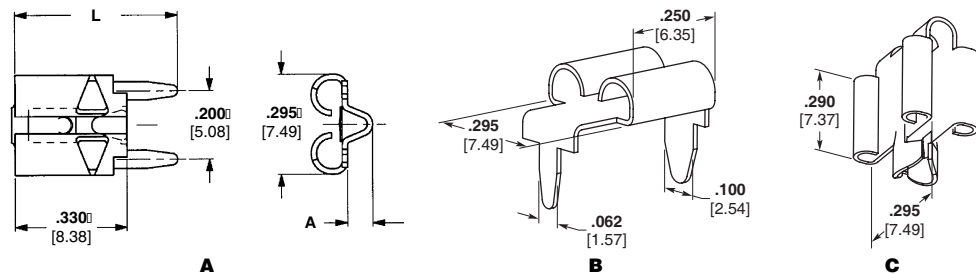


Dimensions		Material and Finish	UL	SP	Terminal Part No.	
L	W				Strip <sup>1</sup>	Loose Piece
.525 13.34	.070 1.78	Tin Plated Brass	X	X	62411-1 <sup>1</sup>	—
.545 13.84	.160 4.06	Tin Plated Brass	X	X	60284-2 <sup>1</sup>	—

<sup>1</sup> Loose piece only.

**.250/.205 Printed Circuit Board Receptacle**

Stock Thickness — .016 [0.41]



Style	Fits Tab	Dimensions		Material and Finish	UL	SP	Part No.	
		A	L				Strip	Loose Piece
A	.032 0.81 (LIF)	.075 1.91	.480 12.19	Tin Plated Brass	—	—	63968-1	—
	.032 0.81	.075 1.91	.480 12.19	Tin Plated Brass	—	—	63969-1	1217080-1
	.025 0.64 (LIF)	.075 1.91	.480 12.19	Tin Plated Brass	—	—	63994-1	—
	.025 0.64	.075 1.91	.510 12.95	Tin Plated Brass	—	—	1217137-1 <sup>2</sup>	—
	.025 0.64	.075 1.91	.480 12.19	Tin Plated Brass	—	—	1217180-1	—
B	.020 0.51	—	—	Tin Plated Phos Bronze	—	—	1217107-1 <sup>1</sup>	—
C	.250 x .016 6.35 x 0.41 Spade	—	—	Tin Plated Brass	—	—	62751-1	62806-1

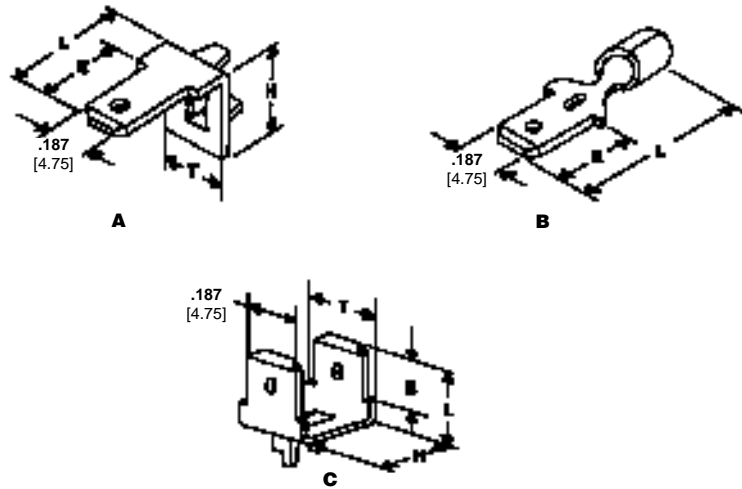
<sup>1</sup> Horizontal mount.

<sup>2</sup> .180 [4.57] length — solder legs.

**FASTON Printed Circuit Board Tabs and Receptacles** (Continued)

**187 Series  
Printed Circuit Board Tabs**

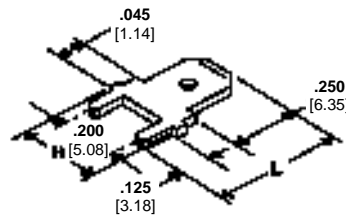
Stock Thickness — .020 [0.51]



Type	Board Thickness	Dimensions				Material and Finish	UL	SP	Terminal Part No.
		T	L	E	H				
A	.055	.250	.332	.250	.283	Pre-Tin Brass	X	X	61543-1 <sup>2</sup>
	1.38	6.35	8.43	6.35	7.19				
B	.062	.250	.332	.250	.283	Tin-Plated Brass	X	X	61907-1 <sup>1</sup>
	1.57	6.35	8.43	6.35	7.19				
C	.062	.250	.332	.250	.303	Pre-Tin Brass	X	X	62221-1 <sup>2</sup>
	1.57	6.35	8.43	6.35	7.70				

<sup>1</sup> Loose piece only.  
<sup>2</sup> Insertion equipment available.

Printed Circuit Board  
Tabs and Receptacles

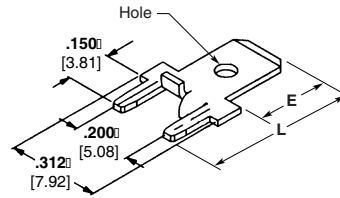


Tab Part No.	Board Thickness	Board Hole Size	Dimensions		Material and Finish	UL	SP	Terminal	
			L	H				Strip <sup>2</sup>	Loose Piece
.032 0.81	.053-.057 1.35-1.45		.487 12.37	.280 7.11	Tin Plated Brass	X	X	63525-1 <sup>1</sup>	1217057-1 <sup>1</sup>
			.487 12.37	.285 7.24					
.020 0.51	.050-.054 1.27-1.37		.440 11.18	.312 7.92	Tin Plated Brass	X	X	63603-1	1217131-1

<sup>1</sup> Dimple.  
<sup>2</sup> Insertion equipment available.

**187 Series  
Printed Circuit Board Tabs**  
(Continued)

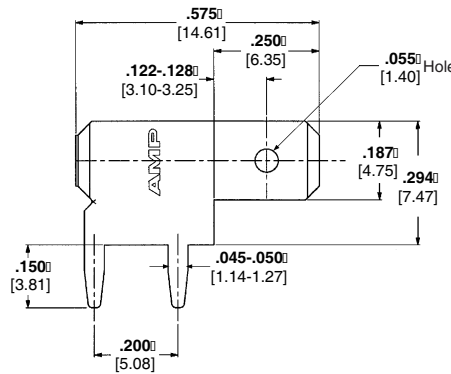
**FASTON Printed Circuit Board Tabs and Receptacles** (Continued)



Tab Thickness	Dimensions		Material and Finish	UL	SR <sup>3</sup>	Terminal Part No.	
	L	E				Strip <sup>3</sup>	Loose Piece
.032 0.81	.490 12.45	.250 6.35	Tin Plated Brass	X	X	63860-1 <sup>1</sup>	—
	.710 18.03	.470 11.94	Tin Plated Brass	X	X	1217133-1	—
	.635 16.13	.395 10.03	Tin Plated Brass	—	—	—	1217332-1 <sup>2</sup>
.020 0.51	.490 12.45	.250 6.35	Tin Plated Brass	X	X	63823-1	63982-1

<sup>1</sup> Dimple.  
<sup>2</sup> No hole or dimple.  
<sup>3</sup> Insertion equipment available.

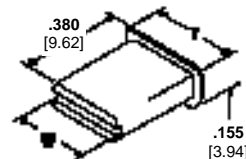
**Right Angle Printed Circuit Board Tab**



Stock Thickness	Board Hole Size	Material and Finish	UL	SR <sup>3</sup>	Terminal Part No.
.032 0.81	.053-.057 1.35-1.45	Tin Plated Brass	X	X	1217061-1 1217756-1 <sup>1</sup>
.020 0.51	.050-.054 1.27-1.37	Tin Plated Brass	X	X	1217062-1 1217156-1 <sup>1</sup>

<sup>1</sup> Loose piece.

**Tab Caps 187 and 250 Series**



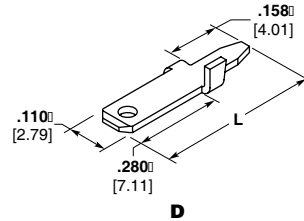
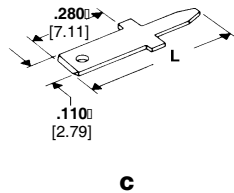
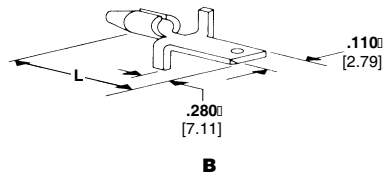
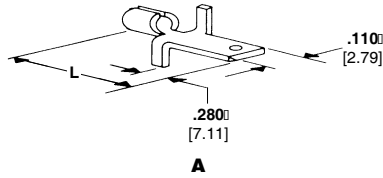
Tab Size	Material	UL 94 <sup>1</sup>	Color	Dimensions		Insulator Part No.
				T	W	
"187" Series .020 [0.51] Thick	Nylon	V2	Natural	.320 8.13	.260 6.60	360041-1
"250" Series .032 [0.81] Thick	Nylon	V2	Natural	.380 9.65	.320 8.13	360042-1

<sup>1</sup> Flammability rating.

**.110 Series Printed Circuit Board**

Stock Thickness — .020 [0.51]

**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

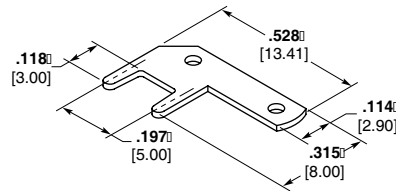


Style	Mating Hole Diameter	Dim. L	Material and Finish	RA	SP <sup>®</sup>	Terminal Part No.
A	.060-.055 1.52-1.40	.490 12.45	Tin Brass	X	X	61134-3 <sup>1</sup>
B	.067-.063 1.70-1.60	.485 12.32	Tin Brass	X	X	61968-1 <sup>2</sup>
				X	X	62437-1 <sup>1</sup>
C	.044-.048 1.12-1.22	.490 12.45	Tin Brass	X	X	62395-1 <sup>2</sup>
		.622 15.80	Tin Brass	X	X	63756-1 <sup>2,3</sup>
		.910 23.11	Tin Brass	—	—	63794-1 <sup>4</sup>
		.550 13.97	Tin/Lead	—	—	1217121-1 <sup>1</sup>
		.622 15.80	Tin Brass	—	—	1217514-1
D	.067-.073 1.70-1.85	.490 12.45	Pre-tin/ Pre-copper	X	X	62669-1 <sup>2</sup>
				.062-.068 1.57-1.73	.545 13.84	Tin Brass

<sup>1</sup> Loose piece only.  
<sup>2</sup> Insertion machine available.  
<sup>3</sup> .032 [0.81] Stock.  
<sup>4</sup> .060 [1.52] Tab width.

Printed Circuit Board  
 Tabs and Receptacles

**Right Angle Printed Circuit Board Tabs**



Tab Thickness	PCB Hole Dia. +0/-.01 [+0/-.03]	Material and Finish	RA	SP <sup>®</sup>	Terminal Part No.
.032 0.81	.055 1.40	Tin Plated Brass	—	—	725963-2
.020 0.51	.051 1.30	Tin Plated Brass	—	—	725996-2

**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

**250 Series**

**FASTON Tab Adapters**

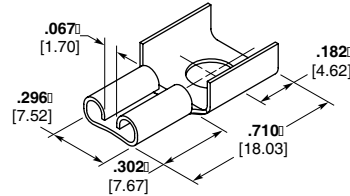
Fits Tab — .032 [0.81]



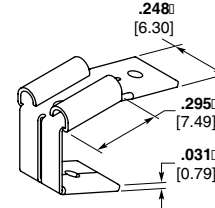
A



B



C



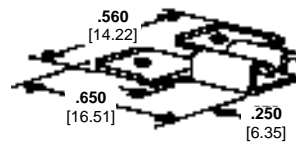
D

Style	Stock Thickness	Dimensions			Material and Finish	A	SP	Terminal Part No.
		W	L	E				
A	.018 Recpt. 0.46	.650 16.51	.770 19.56	.305 7.75	Brass	X	X	61765-1
	.032 Tabs 0.81				Tin Plated Brass	X	X	61765-2 <sup>1</sup> 1217033-1
B	.018 Recpt. 0.46	.300 7.62	.700 11.78	—	Tin Plated Brass	X	X	61810-2
	.032 Tabs 0.81					X	X	63918-1 <sup>2</sup>
C	.016 Recpt. 0.41	—	—	—	Nickel Plated Steel	—	—	151302-2
	.016 Tabs 0.41	—	—	—	Brass (90°)	—	—	152422-1
D	.016 Recpt. 0.41	—	—	—	Brass	—	—	726308-1
	.032 Tabs 0.81							

<sup>1</sup> No tab stop on receptacle.  
<sup>2</sup> Fits .025 [0.64] thick tab.

**187 Series**

**FASTON Tab Adapters**



A

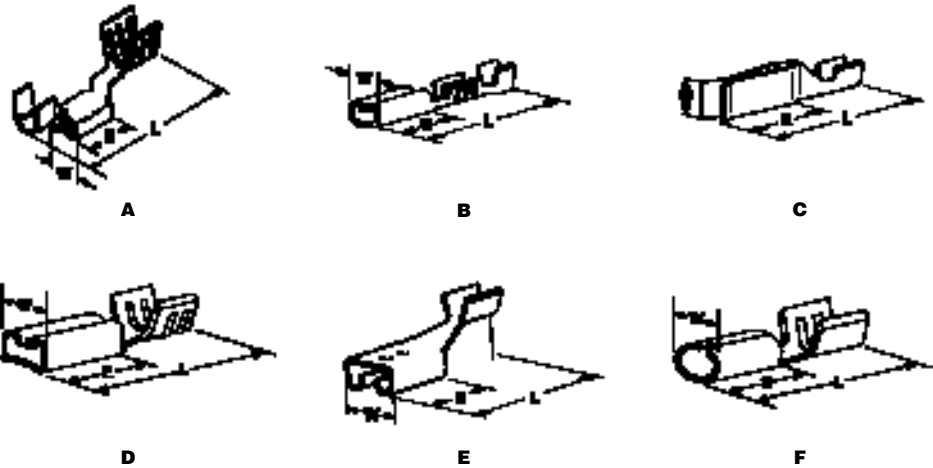
Style	Stock Thickness	Receptacle Fits Tab	Material and Finish	A	SP	Terminal Part No.
A	.013 Recpt. 0.33	.020 0.51	Tin Plated Brass	X	X	61045-2
	.020 Tabs 0.51					
A	.013 Recpt. 0.33	.032 0.81	Tin Plated Brass	X	X	63699-1
	.032 Tabs 0.81					

Printed Circuit Board  
 Tabs and Receptacles



**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

Tab Receptacles



Wire Range		Type	Insul. Dia. Range	Stock Thk.	Material and Finish	Fits Tab	Dimensions			Part No.
AWG	mm <sup>2</sup>						E	L	W	
26-22	0.12-0.4	B	.035-.065 0.89-1.65	.010 .025	Pre-Tin Brass	.031 x .093 0.79 x 2.36	.190	.475	.120	61813-1 <sup>5</sup>
		4.83					12.06	3.05		
24-20	0.2-0.6	A	.040-.080 1.02-2.03	.010 0.25	Brass	.045 x .045 1.14 x 1.14	.130	.372	.095	60524-1
							3.3	9.45	2.41	
		B			Tin Plated Beryllium Copper	.045 x .045 1.14 x 1.14	.130	.372	.095	60524-5
							3.3	9.45	2.41	
		B			Tin Plated Brass	.031 x .062 0.79 x 1.57	.187	.462	.090	60900-1 <sup>1</sup>
							4.75	11.73	2.29	
		B			Gold Plated Brass	.031 x .062 0.79 x 1.57	.187	.462	.090	60900-2
							4.75	11.73	2.29	
		B			Tin Plated Brass	.031 x .062 0.79 x 1.57	.187	.462	.090	60900-4 <sup>2</sup>
							4.75	11.73	2.29	
B	Gold Plated Brass	.031 x .062 0.79 x 1.57	.187	.462	.090	60900-5 <sup>7</sup>				
			4.75	11.73	2.29					
B	Tin Plated Brass	.031-.062 0.79-1.57	.187	.462	.090	63887-1				
			4.75	11.73	2.29					
F	—	Tin Plated Brass	.010 0.25	.015 x .050 0.38 x 1.27	.145	.310	.070	62352-1		
					3.68	7.87	1.78			
22-20	0.3-0.6	E	—	.010 0.25	Tin Plated Brass	.037 x .125 0.94 x 3.18	.190	.425	.160	41989
22-18	0.3-0.9	A	.060-.110 1.52-2.79	.010 0.25	Tin Plated Brass	.031 x .062 0.79 x 1.57	.130	.372	.090	61489-1
							3.3	9.45	2.29	
B	Pre-Tin Brass	.031 x .062 0.79 x 1.57	.130	.372	.090	61616-1				
							3.3	9.45	2.29	
20-18	0.5-0.9	B	.050-.085 1.27-2.16	.010 0.25	Pre-Tin Brass	.010 x .093 0.25 x 2.36	.190	.480	.120	63391-1 <sup>3,4</sup>
							4.83	12.19	3.05	
		B			Pre-Tin Brass	.010 x .093 0.25 x 2.36	.190	.480	.120	63391-2 <sup>4</sup>
							4.83	12.19	3.05	
		B			Pre-Tin Brass	.032 x .103 0.81 x 2.62	.200	.480	.126	60252-1 <sup>6</sup>
							5.08	12.19	3.2	
B	Pre-Tin Brass	.020 x .103 0.51 x 2.62	.200	.480	.126	60432-1 <sup>6</sup>				
			5.08	12.19	3.2					
D	—	Tin Plated Brass	.020 x .156 0.51 x 3.96	.200	.480	.179	62399-1			
				5.08	12.19	4.55				
18-14	0.8-2.0	C	—	.025 0.64	Brass	.060 x .250 1.52 x 6.35	.520	.985	.250	60312-1
							13.2	25.02	6.35	

<sup>1</sup> Available in loose piece form, order Part No. 61454-1.

<sup>2</sup> Reverse reel of 60900-1.

<sup>3</sup> Loose piece form, of Part No. 63391-2.

<sup>4</sup> Compliant base.

<sup>5</sup> No dimple.

<sup>6</sup> Dimple.

<sup>7</sup> Reverse reel of 60900-2.

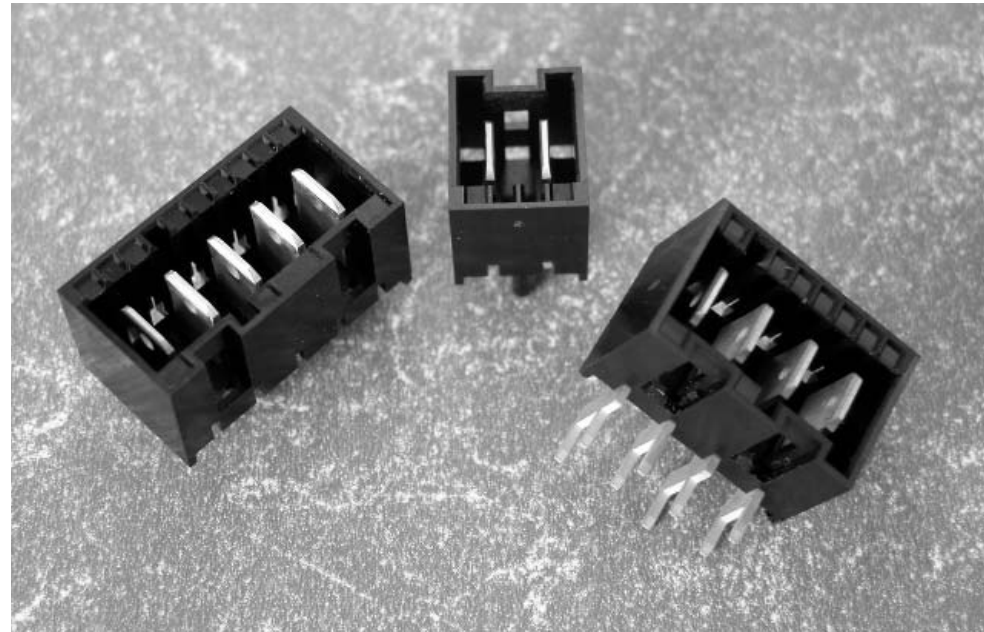
Printed Circuit Board  
Tabs and Receptacles

**FASTON Printed Circuit Board Tabs and Receptacles** (Continued)

**FASTON RAST 5 Tab Header Assembly, 250 Series**

**Product Facts**

- **.250 x .032 [6.3 x 0.8]**  
FASTON Tabs built on 5 mm centerlines
- **Shrouded Header Assembly that conforms to the European RAST 5 Standard**
- **Mating Tyco Electronics Connector Families include AMP Positive Lock RAST 5 Connector System, AMP Standard Timer RAST 5, AMP multifitting, AMP multifitting MKII, AMP MONO-SHAPE TAB MKI, and AMP MONO-SHAPE MKII**
- **Vertical and Right-Angle Versions available in 2 through 8 positions**
- **Tin Plated Brass Tabs are Standard, Silver Plated Tab Versions are available upon Request**
- **Lead Free Design is RoHS and ELV Compliant**
- **UL 94 V-0 Housing meets Glow Wire IEC 60695-1 Section 30.2.3 – 750° NO FLAME**
- **Agency approvals will include UL, CSA, TUV, and VDE**



The AMP FASTON RAST 5 Tab Header Assembly system is designed to provide a RAST 5 interface to a Printed Circuit Board. The RAST 5 Standard defines and standardizes the connector mating interface. 250 Series Tabs are placed on 5mm center lines with a plastic shroud that has keying, polarization, and locking features that help prevent mismatching of the corresponding RAST 5 Female Receptacle Housing. The Header Assembly is

designed to accept any RAST 5 compliant Female receptacle system or individual Quick Connects.

The most common application for this product is for Household Appliance Controls where OEM's want to minimize the possibility of crossed wires. It is also suited for other applications such as Gaming, Vending, and Exercise Equipment controls as well as Residential, Commercial and Industrial HVAC and light industrial equipment.

The system comes fully assembled and is easily press fit into the board for the soldering operation. Preassembly of the tabs into the Header ensures tab perpendicularity to the board. The solder leg PCB layout is based on the Industry Standard for similar systems available on the market. To further ensure correct placement onto the board, the vertical system includes a plastic post which allows Header placement to be polarized.

**Material**

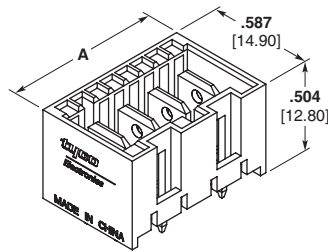
UL 94 V-0, 6/6 Nylon

See Tyco Electronics Catalogs 296599, 889803, 1308197, 1308209 for the complete line of RAST products.

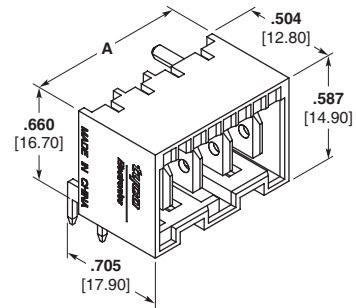
**FASTON Printed Circuit Board Tabs and Receptacles (Continued)**

**FASTON RAST 5 Tab Header Assembly, 250 Series**

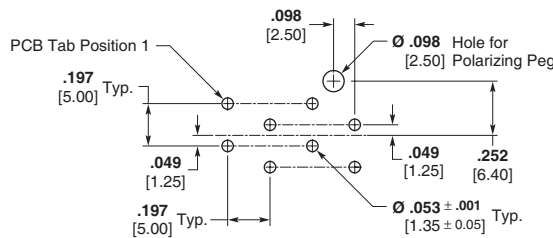
(Continued)



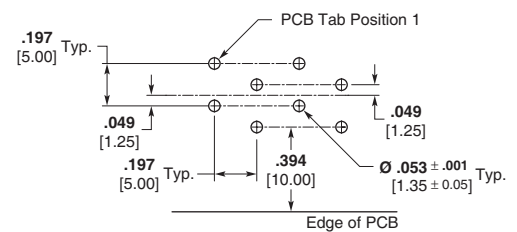
**Vertical Orientation**



**Right Angle Orientation**



**Vertical Orientation PCB Layout (Ref.) from Component Side**



**Right Angle Orientation PCB Layout (Ref.) from Component Side**

No. of Positions	RAST 5 Configuration	Dim. A	Part Numbers	
			Vertical	Right Angle
2	02-A	.484 [12.30]	521382-2	521384-2
	02-B	.484 [12.30]	1-521382-2	1-521384-2
	02-C	.484 [12.30]	2-521382-2	2-521384-2
	02-E	.484 [12.30]	3-521382-2	3-521384-2
	02-G	.484 [12.30]	4-521382-2	4-521384-2
	02-I	.484 [12.30]	5-521382-2	5-521384-2
	02-P	.484 [12.30]	6-521382-2	6-521384-2
3	03-A	.681 [17.30]	521382-3	521384-3
	03-B	.681 [17.30]	1-521382-3	1-521384-3
	03-D	.681 [17.30]	2-521382-3	2-521384-3
	—	.681 [17.30]	3-521382-3	3-521384-3
4	04-A	.878 [22.30]	521382-4	521384-4
	04-B	.878 [22.30]	1-521382-4	1-521384-4
	04-C	.878 [22.30]	2-521382-4	2-521384-4
	04-F	.878 [22.30]	3-521382-4	3-521384-4
	04-G	.878 [22.30]	4-521382-4	4-521384-4
	—	.878 [22.30]	5-521382-4	5-521384-4
5	05-B	1.075 [27.30]	521382-5	521384-5
	—	1.075 [27.30]	1-521382-5	1-521384-5
	—	1.075 [27.30]	2-521382-5	2-521384-5
	—	1.075 [27.30]	3-521382-5	3-521384-5
6	06-A	1.272 [32.30]	521382-6	521384-6
	06-D	1.272 [32.30]	1-521382-6	1-521384-6
	07-C	1.469 [37.30]	521382-7	521384-7
7	—	1.469 [37.30]	1-521382-7	1-521384-7
	—	1.469 [37.30]	2-521382-7	2-521384-7
	—	1.469 [37.30]	3-521382-7	3-521384-7
	08-D	1.665 [42.30]	521382-8	521384-8
8	—	1.665 [42.30]	1-521382-8	1-521384-8
	08-C	1.665 [42.30]	2-521382-8	2-521384-8

Refer to the Tyco Electronics Customer Drawing for additional details.  
For more information related to the RAST 5 Standard, see Tyco Electronics Literature Distribution no. 1308243.