

Product Facts

- Connectors and headers for 2 through 28 positions; wire sizes of 22, 24, 26 and 28 AWG [0.4-0.08 mm²]
- Wire-to-Post Connectors preloaded with dual beam contacts
- Connectors and headers, except shrouded headers, are end-to-end stackable
- Connector styles include both closed end and feed-thru connectors with locking ramps, with and without polarizing tabs
- Molded ribs on housing do not allow reverse mating
- Posted connectors for 2 through 19 positions
- Connectors preloaded with IDC contacts
- All contacts are slotted for insulation displacement (IDC) terminal technique
- Contacts are lubricated for fretting corrosion protection
- Benefits derived from the MTA-100 system include increased quality and ease of handling such as—
 - One-step assembly
 - No wire stripping
 - No contact damage
 - Reduced wiring errors
 - Simpler tooling
 - Simple maintenance and repair
- Meets the material requirements of Table 23.1 of UL1410 Standards for Television Receiver and Video Products (wire-to-post connectors only)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189

Technical Documents**Product Specification**

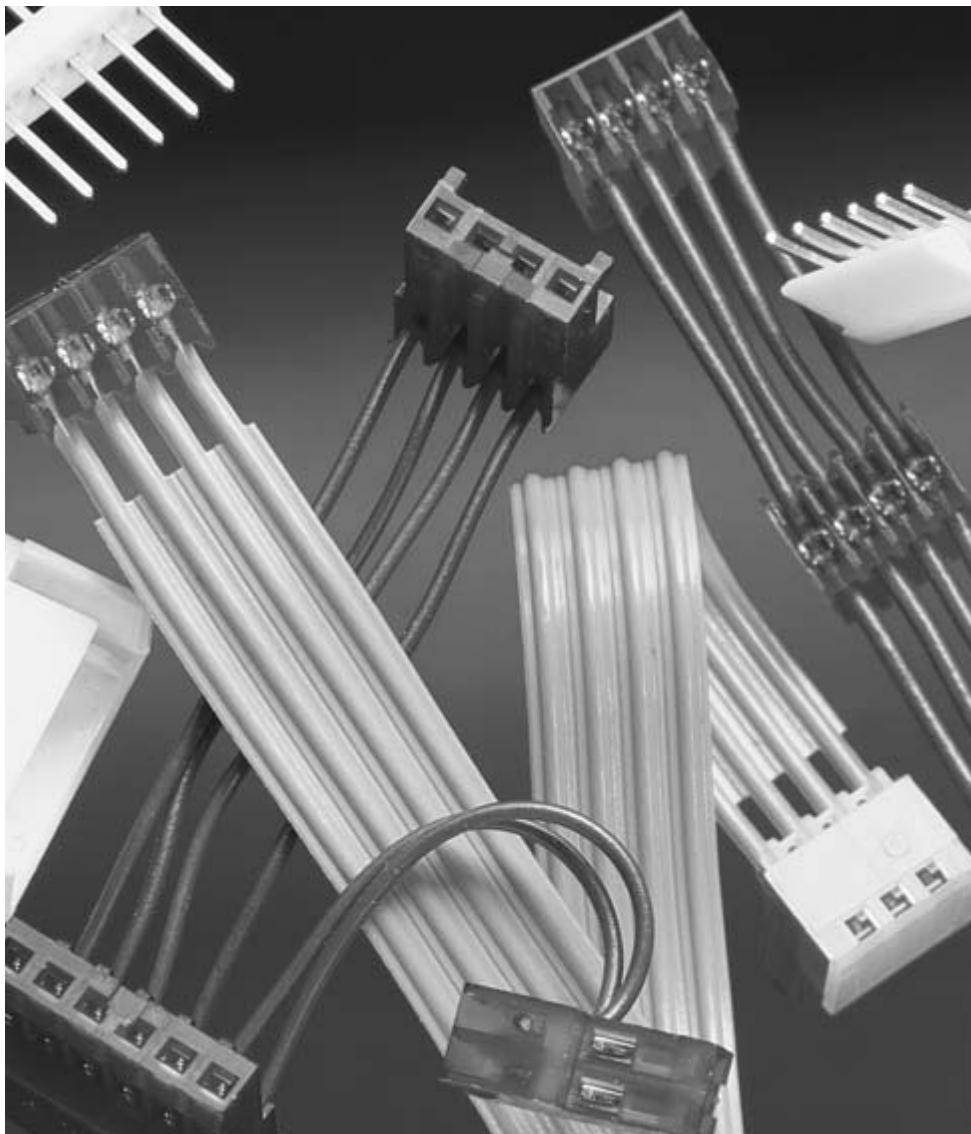
108-1050 MTA-100 Connectors

Application Specifications

114-1019 MTA-100 Connectors

114-1031 MTA-100 Ribbon Cable Assembly

MTA, CST-100 II, SL-156 and
AMP Economy Power (EP) Connectors

.100 [2.54] Centerline MTA-100 IDC Connectors and Headers

MTA-100
.100 [2.54]

MTA-100 connectors accept discrete and ribbon cable wire sizes ranging from 22–28 AWG [0.4–0.08 mm²] with maximum insulation outside diameter of .060 [1.52] for terminating single wire and .050 [1.27] for mass termination of wires. Tin plated solid, fused stranded, or stranded (7 strands) wire with PVC insulation can be used on 22–28 AWG [0.4–0.9 mm²] MTA-100 connectors and 19 stranded wire on 22–24 AWG [0.4–0.2 mm²] MTA-100 connectors. Only

one wire to be terminated into an IDC contact slot. The wire-to-post connector housing material is flame retardant thermoplastic, either UL94V-2 or UL94V-0 rated. A full line of .100 [2.54] centerline headers completes the system. Headers are available with straight or right-angle posts, in flat, polarized or friction lock styles. Headers are available in 2 through 28 positions. Shrouded headers are available in 2 through 14 positions.

Performance Data***Voltage Rating**—250 vac**Current Rating**—5 amp max.**Low-Level Resistance**—

6 mΩ max. initial

Dielectric Withstanding Voltage—
750 vac/1 min.**Insulation Resistance**—
5000 MΩ min. initial**Operating Temperature**—
−55° C to +105° C**Note:** Refer to page 70 for approved wire listings.

*Refer to the Product Specification for additional electrical, mechanical and environmental performance tests and requirements.

**Matrix for Tin Plated
Part Numbers****MTA-100 Connector/Header Mateability Guide**

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 header and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Connectors	Headers																											
	640452	640453	640454	640455	640456	640457	644456	644457	644486	644488	644694	644695	644803	644861	644874	644875	644876	644877	644892	644893	644894	647047	647048	647050	647051	647106	647623	647532
640440	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640441	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640442	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640443	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640468	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640469	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640470	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640471	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640620	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640621	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640622	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
640623	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641311	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641312	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641313	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641314	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641534	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641535	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641536	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641537	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641653	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641654	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641655	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
641656	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643498	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643813	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643814	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643815	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643816	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
643828	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644083	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644312	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644313	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644497	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644511	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644512	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644513	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644514	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644540	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644563	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644564	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644565	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644574	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644575	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644576	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644577	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644578	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644579	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
644795	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
*1375820	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y

*Select contact plating to match header plating.

MTA-100 Connector/Header Mateability Guide (Continued)

Matrix for .000030 [0.00076] Gold Plated Part Numbers

MTA-100 IDC Connectors—Closed End and Feed-Thru**Material and Finish**

Housing—UL94V-2 rated, nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts—Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold-plated over nickel

**Color Coding by
Wire Size for UL94V-2
Connectors**

28 AWG—Green

26 AWG—Blue

24 AWG—White

22 AWG—Red

All wire sizes in UL94V-0—

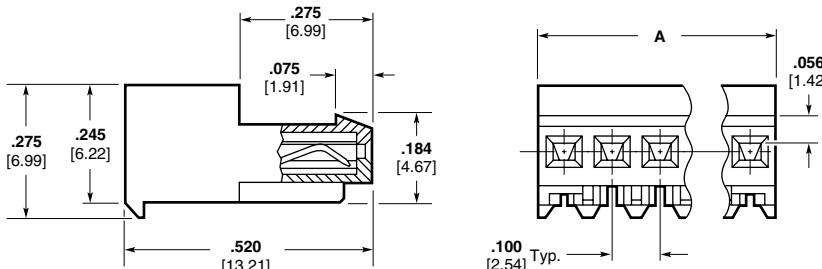
Black

For mateability options, see matrix on pages 12 and 13.

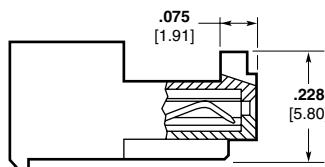
For mating half visuals, see pages 20 thru 30.

Notes:

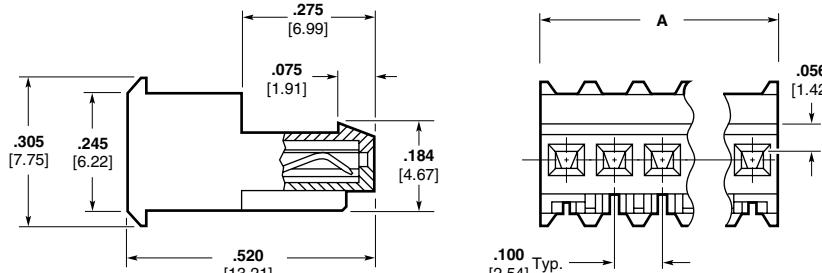
1. Refer to pages 70-74 for approved wire listing.
2. For strain reliefs and dust covers, see page 16.
3. For keying plugs, see page 17.
4. Other circuit sizes are available upon request. Minimums may apply.
5. Connector circuits can be molded closed for keying purposes. Minimums may apply.
6. Where no part numbers appear in the chart, parts can be made available upon request. Minimums may apply.
7. To determine connector overall length (dim. A), multiply .100 x the number of circuits. Example: .100 x 10 circuits equals 1.000 inch [25.4 mm].

Closed End Connectors

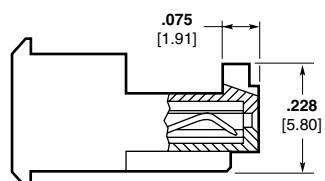
Without Polarizing Tabs



With Polarizing Tabs

Feed-Thru Connectors

Without Polarizing Tabs



With Polarizing Tabs

Connector Ordering Information

The "Base Part Numbers" Chart at right shows the base part number, number of circuits and their RoHS (Restrictions on Certain Hazardous Substances) Compliant (lead free) equivalent available for the described connectors.

Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 10-position closed end connector without polarizing tabs for 22 AWG wire would be:

Base number **640440** plus prefix-and-suffix
1- — 0

The correct ordering number is **1-640440-0**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	640440-2	3-640440-2
3	640440-3	3-640440-3
4	640440-4	3-640440-4
5	640440-5	3-640440-5
6	640440-6	3-640440-6
7	640440-7	3-640440-7
8	640440-8	3-640440-8
9	640440-9	3-640440-9
10	1-640440-0	4-640440-0
11	1-640440-1	4-640440-1
12	1-640440-2	4-640440-2
13	1-640440-3	4-640440-3
14	1-640440-4	4-640440-4
15	1-640440-5	4-640440-5
16	1-640440-6	4-640440-6
17	1-640440-7	4-640440-7
18	1-640440-8	4-640440-8
19	1-640440-9	4-640440-9
20	2-640440-0	5-640440-0
21	2-640440-1	5-640440-1
22	2-640440-2	5-640440-2
23	2-640440-3	5-640440-3
24	2-640440-4	5-640440-4
25	2-640440-5	5-640440-5
26	2-640440-6	5-640440-6
27	2-640440-7	5-640440-7
28	2-640440-8	5-640440-8

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

MTA-100 IDC Connectors—Closed End and Feed-Thru (Continued)

Base Part Numbers

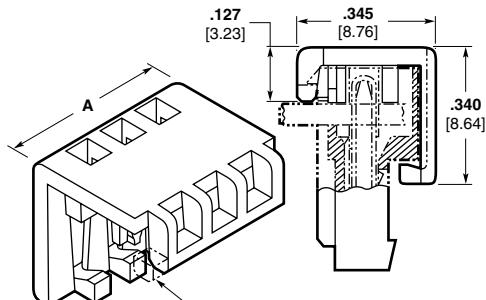
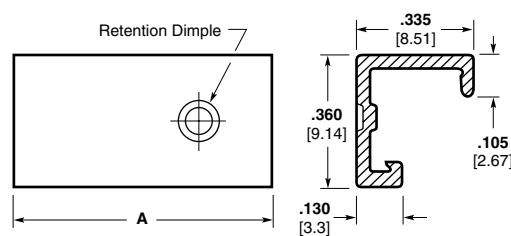
Connector Type & Wire Size	Closed End			Feed-Thru			
	Without Tabs	With Tabs	Without Tabs	With Tabs	Without Tabs	With Tabs	
Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.	Connector Part Nos.	No. of Circuits/ RoHS Equiv.
Standard UL94V-2, Tin Plated							
22 AWG 0.3–0.4 mm ²	640440 32-58	2-28 32-58	643813	2-28 32-58	640620	2-28 32-58	644540 ¹ 32-45
24 AWG 0.2 mm ²	640441 32-58	2-28 32-58	643814	2-28 32-58	640621	2-28 32-58	644563 ¹ 32-54
26 AWG 0.12–0.15 mm ²	640442 32-58	2-28 32-58	643815	2-28 32-58	640622	2-28 32-58	644564 ¹ 32-45
28 AWG 0.08–0.09 mm ²	640443 32-58	2-28 32-58	643816	2-28 32-58	640623	2-28 32-58	644565 ¹ 32-45
Tape Mounted on Reel UL94V-2, Tin Plated							
22 AWG 0.3–0.4 mm ²	640468 32-58	2-28 42-68	644511	2-28 42-68	641311	2-28 32-58	— —
24 AWG 0.2 mm ²	640469 32-58	2-28 32-58	644512	2-28 32-58	641312	2-28 32-58	— —
26 AWG 0.12–0.15 mm ²	640470 32-58	2-28 32-58	644513	2-28 32-58	641313	2-28 32-58	— —
28 AWG 0.08–0.09 mm ²	640471 32-58	2-28 32-58	644514	2-28 32-58	641314	2-28 32-58	— —
Standard UL94V-2, .000030 [0.00076] Gold Plated							
22 AWG 0.3–0.4 mm ²	641237 32-58	2-28 32-58	644042	2-28 32-58	641241	2-28 32-58	644702 ¹ 32-45
24 AWG 0.2 mm ²	641238 32-58	2-28 32-58	644020	2-28 32-58	641242	2-28 32-58	— —
26 AWG 0.12–0.15 mm ²	641239 32-58	2-28 32-58	644043 ¹	2-14 32-44	641243	2-28 32-58	644726 ¹ 32-45
28 AWG 0.08–0.09 mm ²	641240 32-58	2-28 32-58	644044 ¹	2-14 32-44	641244	2-28 32-58	— —
Standard UL94V-2, .000015 [0.00038] Gold Plated							
22 AWG 0.3–0.4 mm ²	641190 32-58	2-28 32-58	644038 ¹	2-14 32-44	641198	2-28 32-58	647477 32-46
24 AWG 0.2 mm ²	641191 32-58	2-28 32-58	1744020 ¹	2-14 32-44	641199	2-28 32-58	— —
26 AWG 0.12–0.15 mm ²	641192 32-58	2-28 32-58	644040 ¹	2-14 32-44	641200	2-28 32-58	647480 32-43
28 AWG 0.08–0.09 mm ²	641193 32-58	2-28 32-58	—	—	641201	2-28 32-58	— —
LED*, UL94V-2, Tin Plated (See Note 1)							
22 AWG 0.3–0.4 mm ²	641534 32-33	2-3 32-33	—	—	641653	2-3 32-33	— —
24 AWG 0.2 mm ²	641535 32-33	2-3 32-33	644795	2-3 32-33	641654	2-3 32-33	— —
26 AWG 0.12–0.15 mm ²	641536 32-33	2-3 32-33	—	—	641655	2-3 32-33	— —
28 AWG 0.08–0.09 mm ²	641537 32-33	2-3 32-33	—	—	641656	2-3 32-33	— —
Standard UL94V-0, Tin Plated (Gold is available, minimums may apply.) (Black in color)							
22 AWG 0.3–0.4 mm ²	643498 ¹ 32-45	2-15 32-45	644083 ¹	2-15 32-45	644575 ¹	2-15 32-45	644578 ¹ 32-45
24 AWG 0.2 mm ²	644574 ¹ 32-45	2-15 32-45	644312 ¹	2-15 32-45	644576 ¹	2-15 32-45	644579 ¹ 32-45
26 AWG 0.12–0.15 mm ²	643828 ¹ 32-45	2-15 32-45	644313 ¹	2-15 32-45	644577 ¹	2-15 32-45	644497 ¹ 32-45

*LED connectors are designed to mate with .014-.020 [.036–.051] diameter posts or square leads.

¹ Other circuit sizes are available upon request. Minimums may apply.

² Tape mounted.

Note: Blocked circuit configurations are available. Contact product engineer or product manager for details. Minimums may apply.

MTA-100 IDC Connector Accessories**Covers****Material (RoHS Compliant)****Strain Relief Cover**—UL94V-2 rated, nylon, white**Dust Covers**—UL94V-0 rated, polyester, white**Closed End Strain Relief Covers****Closed End Dust Covers****Cover Ordering Information**

The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described cover.

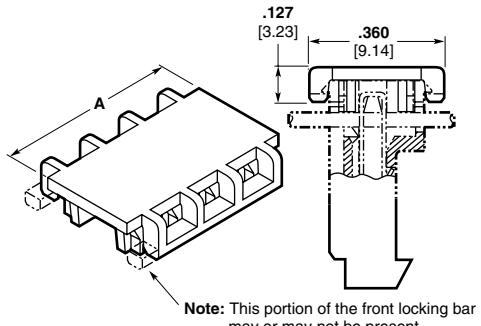
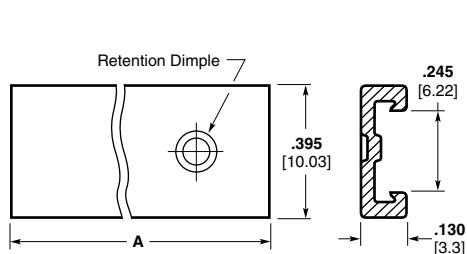
Prefixes and suffixes are determined by the number of circuit positions in the cover. For example, the complete part number for a 10-position closed end strain relief cover would be:

Base number **643075** plus prefix-and-suffix

1- — 0

The correct ordering number is

1-643075-0

Feed-Thru Strain Relief Covers**Feed-Thru Dust Covers****Base Part Numbers**

Cover Part Nos.	Closed End		Feed-Thru		
	Strain Relief Covers		Dust Covers		
	No. of Circuits	Cover Part Nos.	No. of Circuits	Cover Part Nos.	
643075	2-28	640550	2-28	643077	2-28
640642	3-28				

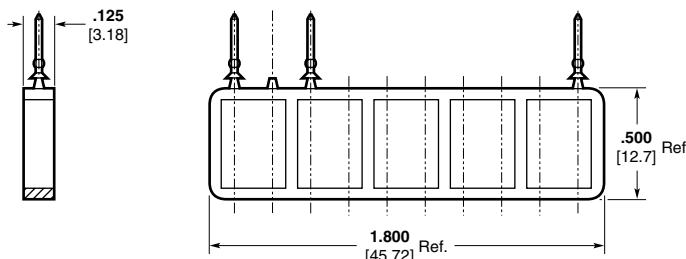
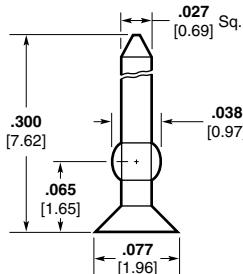
Cover Length

No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix	No. of Circuits	Dim. A	Prefix/Suffix
2	.200 5.08	-2	9	.900 22.86	-9	16	1.600 40.64	1- -6	23	2.300 58.42	2- -3
3	.300 7.62	-3	10	1.00 25.4	1- -0	17	1.700 43.18	1- -7	24	2.400 60.96	2- -4
4	.400 10.16	-4	11	1.100 27.94	1- -1	18	1.800 45.72	1- -8	25	2.500 63.5	2- -5
5	.500 12.7	-5	12	1.200 30.48	1- -2	19	1.900 48.26	1- -9	26	2.600 66.04	2- -6
6	.600 15.24	-6	13	1.300 33.02	1- -3	20	2.000 50.8	2- -0	27	2.700 68.58	2- -7
7	.700 17.78	-7	14	1.400 35.56	1- -4	21	2.100 53.34	2- -1	28	2.800 71.12	2- -8
8	.800 20.32	-8	15	1.500 38.1	1- -5	22	2.200 55.88	2- -2			

Keying Plug with Carrier Strip (10 plugs per strip)
Part No. 641994-1

Material (RoHS Compliant)
 UL94V-2 rated, nylon, natural color

Note: Removal of contact is not necessary when using keying plug.



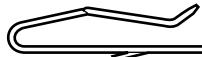
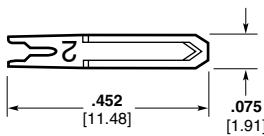
Replacement IDC Contacts

Material and Finish

Phosphor bronze, post tin plated;
 .000030 [0.00076] or .000015
 [0.00038] post gold plated over nickel

Note: Tyco Electronics does not recommend terminating an MTA contact more than one time. Use replacement contacts when required for field repairs or wire changes.

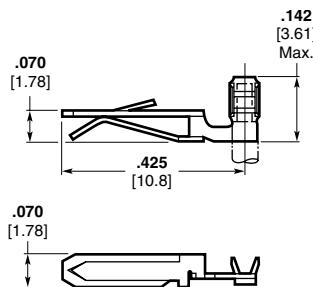
Wire Size		Part Numbers		
AWG	mm ²	Standard Tin Plated	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
22	0.3–0.4	640636-3	641186-4	641186-3
24	0.2	640637-3	641187-4	641187-3
26	0.12–0.15	640638-3	641188-4	641188-3
28	0.08–0.09	640639-2	641189-4	641189-3



Crimp Snap-In Contacts

Material and Finish

Phosphor bronze, tin plated



Wire Size		Part Nos.	
AWG	mm ²	Loose Piece*	Strip**
26-22	0.12–0.4	640709-2	640708-2

*Hand Tool No. 59836-1 (IS 408-6527)

**Applicator No. 466747-1 (IS 408-8040)

Special applications for crimp snap-in contacts are:

1. Double wire per contact
2. Coax or shielded wire
3. Mixed wire size in same connector

Note: Only one crimp snap-in contact per connector.

Matrix for Tin Plated Part Numbers

MTA, CST-100 II, SL-156 and
AMP Economy Power (EP) Connectors

AMP

MTA-100 Posted Connector/Connector Mateability Guide

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

		Posted Connectors							
		64700	647001	647002	647003	647004	647005	647006	647007
Connectors	640440	Y Y Y Y Y Y Y Y Y							
	640441	Y Y Y Y Y Y Y Y Y							
	640442	Y Y Y Y Y Y Y Y Y							
	640443	Y Y Y Y Y Y Y Y Y							
	640468	Y Y Y Y Y Y Y Y Y							
	640469	Y Y Y Y Y Y Y Y Y							
	640470	Y Y Y Y Y Y Y Y Y							
	640471	Y Y Y Y Y Y Y Y Y							
	640620	Y Y Y Y Y Y Y Y Y							
	640621	Y Y Y Y Y Y Y Y Y							
	640622	Y Y Y Y Y Y Y Y Y							
	640623	Y Y Y Y Y Y Y Y Y							
	641311	Y Y Y Y Y Y Y Y Y							
	641312	Y Y Y Y Y Y Y Y Y							
	641313	Y Y Y Y Y Y Y Y Y							
	641314	Y Y Y Y Y Y Y Y Y							
	641534	Y Y Y Y Y Y Y Y Y							
	641535	Y Y Y Y Y Y Y Y Y							
	641536	Y Y Y Y Y Y Y Y Y							
	641537	Y Y Y Y Y Y Y Y Y							
	641653	Y Y Y Y Y Y Y Y Y							
	641654	Y Y Y Y Y Y Y Y Y							
	641655	Y Y Y Y Y Y Y Y Y							
	641656	Y Y Y Y Y Y Y Y Y							
	643498	Y Y Y Y Y Y Y Y Y							
	643813	Y* Y* Y* Y* Y* Y* Y* Y*							
	643814	Y* Y* Y* Y* Y* Y* Y* Y*							
	643815	Y* Y* Y* Y* Y* Y* Y* Y*							
	643816	Y* Y* Y* Y* Y* Y* Y* Y*							
	643828	Y Y Y Y Y Y Y Y Y							
	644083	Y* Y* Y* Y* Y* Y* Y* Y*							
	644312	Y* Y* Y* Y* Y* Y* Y* Y*							
	644313	Y* Y* Y* Y* Y* Y* Y* Y*							
	644497	Y* Y* Y* Y* Y* Y* Y* Y*							
	644511	Y* Y* Y* Y* Y* Y* Y* Y*							
	644512	Y* Y* Y* Y* Y* Y* Y* Y*							
	644513	Y* Y* Y* Y* Y* Y* Y* Y*							
	644514	Y* Y* Y* Y* Y* Y* Y* Y*							
	644540	Y* Y* Y* Y* Y* Y* Y* Y*							
	644563	Y* Y* Y* Y* Y* Y* Y* Y*							
	644564	Y* Y* Y* Y* Y* Y* Y* Y*							
	644565	Y* Y* Y* Y* Y* Y* Y* Y*							
	644574	Y Y Y Y Y Y Y Y Y							
	644575	Y Y Y Y Y Y Y Y Y							
	644576	Y Y Y Y Y Y Y Y Y							
	644577	Y Y Y Y Y Y Y Y Y							
	644578	Y* Y* Y* Y* Y* Y* Y* Y*							
	644579	Y* Y* Y* Y* Y* Y* Y* Y*							
	644795	Y* Y* Y* Y* Y* Y* Y* Y*							
	1375820	N N N N N N N N N							

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

MTA-100 Posted Connector/Connector Mateability Guide (Continued)

This matrix has been prepared to assist you, our customer, in defining the correct mating halves for the MTA-100 posted connector and connector combination. Where a "Y" is indicated the combination is a valid mating pair. Where an "N" is indicated the combination is not acceptable for mating.

Matrix for .000030 [0.00076] Gold Plated Part Numbers

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

Matrix for .000015 [0.00038] Gold Plated Part Numbers

*2 & 3 position MTA-100 Posted Connectors can not mate with MTA-100 connectors with polarizing tabs.

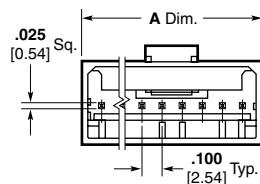
MTA-100 IDC Posted Connectors (Wire-to-Wire)—Closed End, Feed-Thru**Material and Finish**

Housing—UL 94V-2 rated, nylon, see chart for color

Contacts—Copper alloy, post tin or gold plated over nickel (see chart)

Notes:

1. Mating half visuals - pages 14 & 15.
2. Use feed thru strain relief covers & feed thru dust covers (if needed) - page 16.
3. Approved wire listing - pages 70 thru 74.

**Connector Ordering Information**

The "Base Part Numbers" Chart at right shows the base part number and number of circuits available for the described connectors. Prefixes and suffixes are determined by the number of circuit positions in the connector. For example, the complete part number for a 12-position closed end connector for 22 AWG wire would be: Base number **647000** plus prefix-and-suffix **1- — -2**

The correct ordering number is **1-647000-2**

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647000-2	3-647000-2
thru		

See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Color Coding by Wire Size for UL 94V-2 Connectors

22 AWG—Red

24 AWG—White

26 AWG—Blue

28 AWG—Green

Performance Data

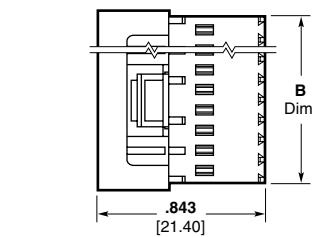
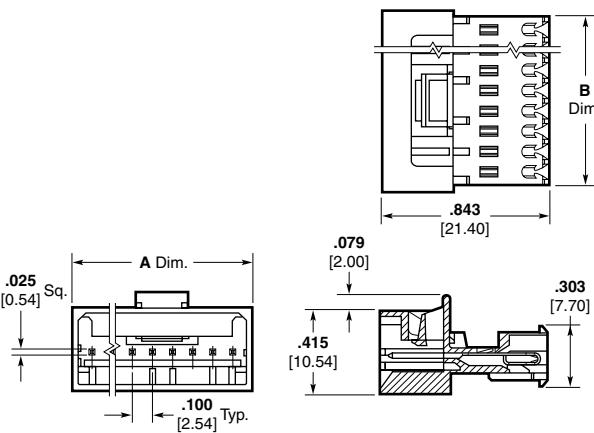
Voltage Rating—250 VAC

Current Rating—4 amp max.

Low-Level Resistance—

16 mΩ max. initial

Dielectric Withstanding Voltage—750 VAC/1 min.

Closed End**Feed-Thru****Base Part Numbers**

Connector Type & Wire Size	Closed End Connector		Feed-Thru Connector	
	Part Nos.	No. of Circuits/RoHS Equiv.	Part Nos.	No. of Circuits
Standard UL 94V-2, Tin Plated				
22 AWG 0.3–0.4 mm ²	647000	2-19¹ 32-49	647004	— ²
24 AWG 0.2 mm ²	647001	2-19¹ 32-49	647005	— ²
26 AWG 0.12–0.15 mm ²	647002	2-19¹ 32-49	647006	— ²
28 AWG 0.08–0.09 mm ²	647003	2-19¹ 32-49	647007	— ²
Standard UL 94V-2, .000030 [0.00076] Gold Plated				
22 AWG 0.3–0.4 mm ²	647008	2-19¹ 32-49	647012	— ²
24 AWG 0.2 mm ²	647009	2-19¹ 32-49	647013	— ²
26 AWG 0.12–0.15 mm ²	647010	2-19¹ 32-49	647014	— ²
28 AWG 0.08–0.09 mm ²	647011	2-19¹ 32-49	647015	— ²
Standard UL 94V-2, .000015 [0.00038] Gold Plated				
22 AWG 0.3–0.4 mm ²	647016	2-19¹ 32-49	647020	— ²
24 AWG 0.2 mm ²	647017	2-19¹ 32-49	647021	— ²
26 AWG 0.12–0.15 mm ²	647018	2-19¹ 32-49	647022	— ²
28 AWG 0.08–0.09 mm ²	647019	2-19¹ 32-49	647023	— ²

¹ 2 and 3 position MTA-100 Posted Connectors (Closed End) can not mate with MTA-100 connectors with polarizing tabs.

² Parts may be manufactured upon request. Minimums may apply. Contact product engineer or product manager for details.

No. of Circuits	Dim. A	Dim. B	No. of Circuits	Dim. A	Dim. B	No. of Circuits	Dim. A	Dim. B
2	.300 [7.62]	.227 [5.77]	6	.700 [17.78]	.627 [15.93]	10	1.100 [27.94]	1.027 [26.09]
3	.400 [10.16]	.327 [8.31]	7	.800 [20.32]	.727 [18.47]	11	1.200 [30.48]	1.127 [28.63]
4	.500 [12.70]	.427 [10.85]	8	.900 [22.86]	.827 [21.01]	12	1.300 [33.02]	1.227 [31.17]
5	.600 [15.24]	.527 [13.39]	9	1.000 [25.40]	.927 [23.55]	13	1.400 [35.56]	1.327 [33.71]

Insulation Resistance—5000 MΩ

min. initial

Operating Temperature—

-55°C to +105°C

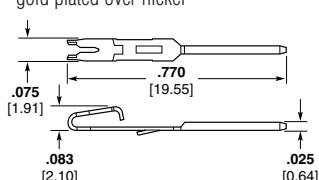
Technical Documents

Product Specification
108-1050-1 MTA-100 Posted Connector

Application Specification
114-1019 MTA-100 Connectors

Replacement IDC Contacts**Material and Finish**

Contacts—Copper alloy, post tin or gold plated over nickel



Wire Size AWG	Dim. mm ²	Part Numbers
22	0.3–0.4	.000030 [0.00076] Tin Plated 3-647030-1 3-647030-2
24	0.2	.000030 [0.00076] Tin Plated 3-647031-1 3-647031-2
26	0.12–0.15	.000030 [0.00076] Tin Plated 3-647032-1 3-647032-2
28	0.08–0.09	.000030 [0.00076] Tin Plated 3-647033-1 3-647033-2

Material and Finish

Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641211** plus prefix-and-suffix
1- — -0

The correct ordering number is
1-641211-0

The set of numbers in **bold** face are the RoHS equivalent version of the standard product. Example:

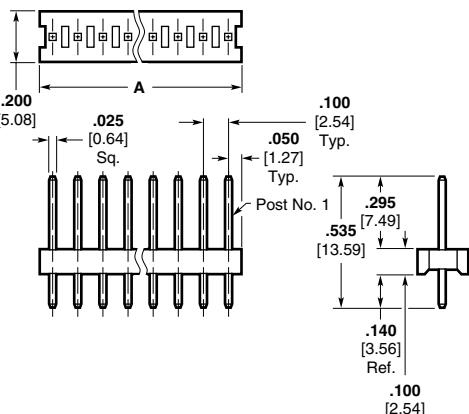
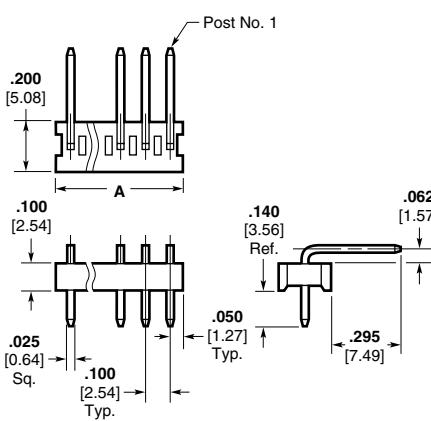
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641211-2	3-641211-2
thru		
28	2-641211-8	5-641211-8

See page 15 for an explanation of RoHS lead free equivalents.

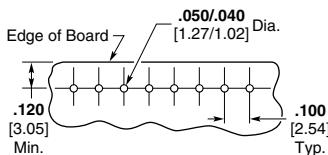
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:
Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II, SL-156 and AMP Economy Power (EP) Connectors

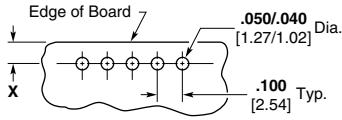
MTA-100 Flat Headers—Straight and Right-Angle**Straight Post (.025 [0.64] Square)****Right-Angle Post (.025 [0.64] Square)**

MTA-100
.100 [2.54]



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

X = .120 [3.05] min., .240 [6.1] max.
when mated with MTA-100 Connector.
X = .120 [3.05] min., when mated with CST-100 II Connector.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated			
640452	2-28	640453	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated			
641211	2-28 32-58	641212	2-28 32-58
Standard UL94V-0, .000015 [0.00038] Gold Plated			
641122	2-28 32-58	641123	2-28 32-58

Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Headers without retentive legs are suitable for breakaway application.
- 2 or 3 retentive leg(s) per header, depending upon number of positions.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts minus (-) .012. Example: .100 x 10 posts - .012 = .988 inches [25.1 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Connector Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and without retentive legs would be:

Base number **644456** plus prefix-and-suffix

1 — —0

The correct ordering number is
1-644456-0

The set of numbers in **bold** face are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	644456-2	3-644456-2
thru		

28	2-644456-8	5-644456-8
----	------------	------------

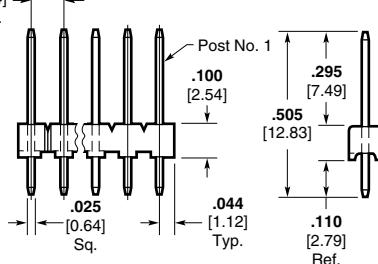
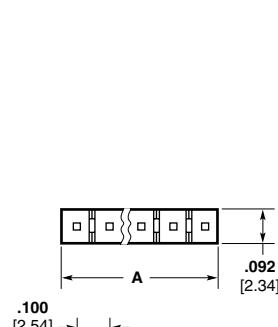
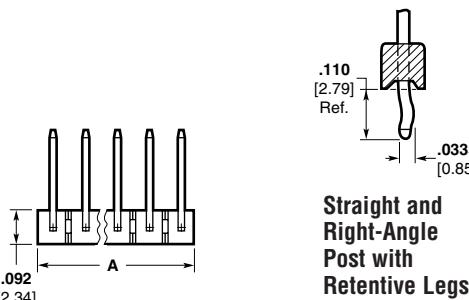
See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

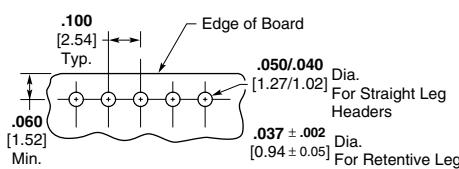
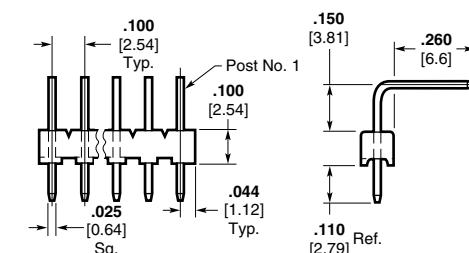
Note:
Select lead headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA, CST-100 II, SL-156 and AMP Economy Power (EP) Connectors

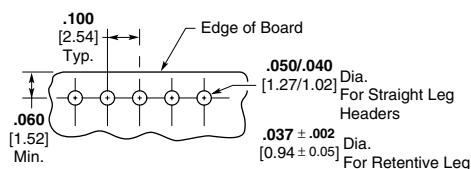
AMP

MTA-100 Narrow Flat Headers—Straight and Right-Angle**Straight Post (.025 [0.64] Square)****Right-Angle Post (.025 [0.64] Square)**

Straight and Right-Angle Post with Retentive Legs



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

	Straight Posts				Right-Angle Posts			
	Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.	Header Part Nos.	No. of Posts/RoHS Equiv.
Standard UL94V-0, Tin Plated								
644456	2-28 32-58	644695	2-28 32-58	644457	2-28 32-58	644694	2-28 32-58	
Standard UL94V-0, .000030 [0.00076] Gold Plated	644884	2-28	644886	2-28	644885	2-28	644887	2-28
Standard UL94V-0, .000015 [0.00038] Gold Plated	644888	2-28	644890	2-28	644889	2-28	644891	2-28

Material and Finish

Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- All posts on retentive leg headers are bent.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641213** plus prefix-and-suffix
1- — 0

The correct ordering number is
1-641213-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641213-2	3-641213-2
thru		

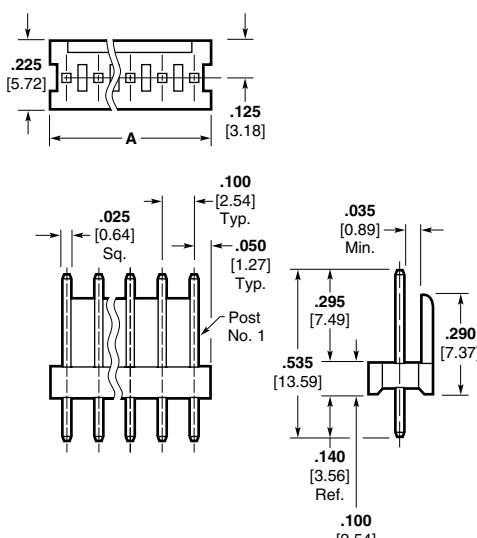
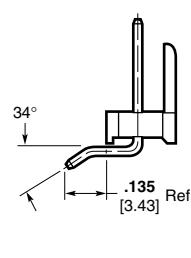
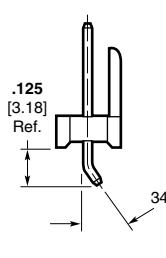
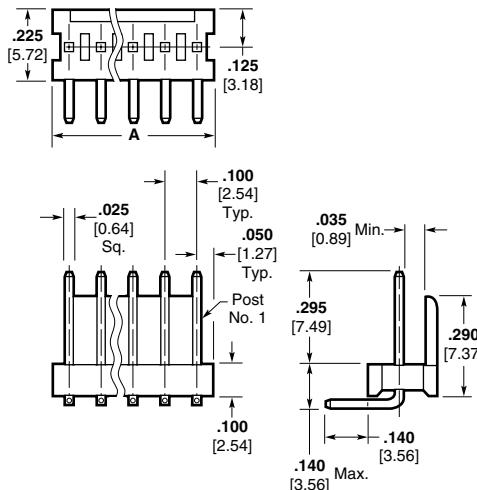
28 2-641213-8 5-641213-8

See page 15 for an explanation of RoHS lead free equivalents.

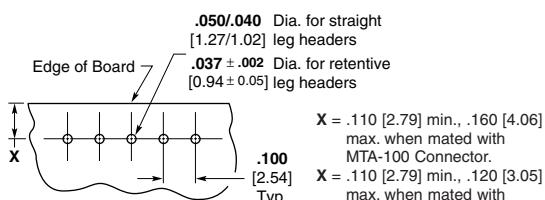
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Straight Post (.025 [0.64] Square)**Right-Angle Post (.025 [0.64] Square)**

Retentive Leg



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts				Right-Angle Posts			
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated							
640454	2-28	644876	2-28	640455	2-28	644877	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated							
641213	2-28 32-58	—	—	641214	2-28 32-58	—	—
Standard UL94V-0, .000015 [0.00038] Gold Plated							
641124	2-28 32-58	—	—	641125	2-28 32-58	—	—

Material and Finish

Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- All posts on retentive leg headers are bent.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **641215** plus prefix-and-suffix
1- — 0

The correct ordering number is
1-641215-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

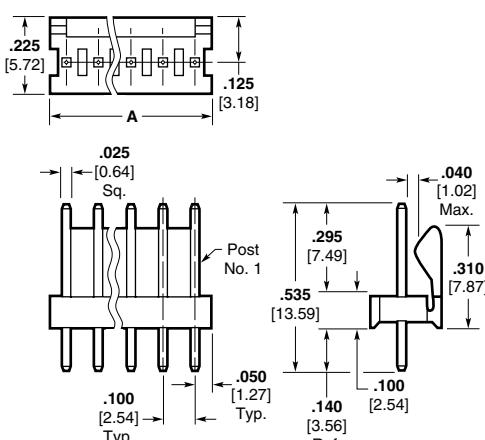
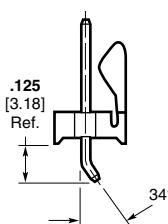
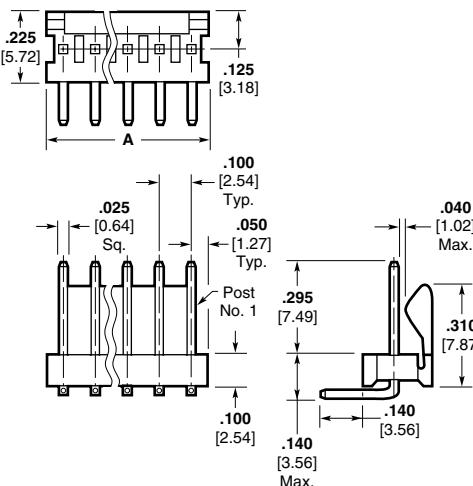
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	641215-2	3-641215-2
thru		

28 2-641215-8 5-641215-8

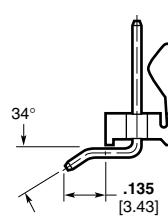
See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

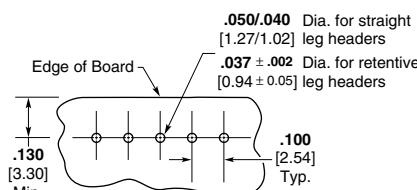
Note:
Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Straight Post (.025 [0.64] Square)**Right-Angle Post (.025 [0.64] Square)**

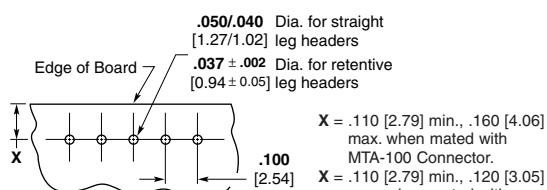
Retentive Leg



Retentive Leg



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Straight Posts				Right-Angle Posts				
Without Retentive Legs		With Retentive Legs		Without Retentive Legs		With Retentive Legs		
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	
Standard UL94V-0, Tin Plated				640456	2-28	644874	2-28	
					640457	2-28	644875	2-28
Standard UL94V-0, .000030 [0.00076] Gold Plated				641215	2-28	—	—	
	32-58	—	—		641216	2-28	—	
Standard UL94V-0, .000015 [0.00038] Gold Plated					641127	2-28	—	
	32-58	—	—		641128	32-58	—	

Material and Finish

Housing—UL94V-0 rated, thermoplastic, black

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

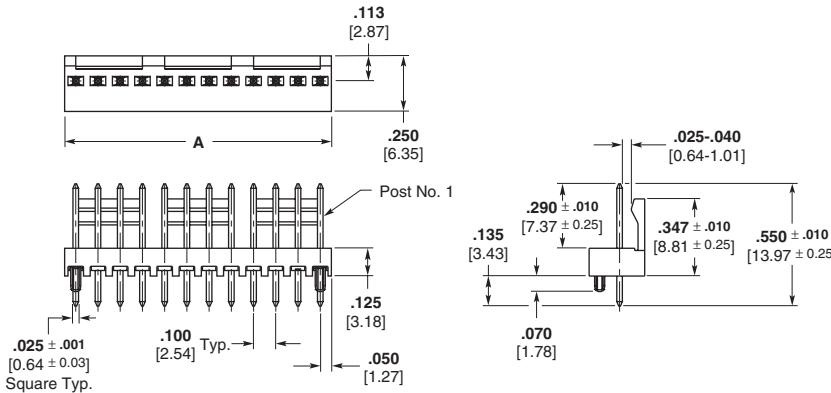
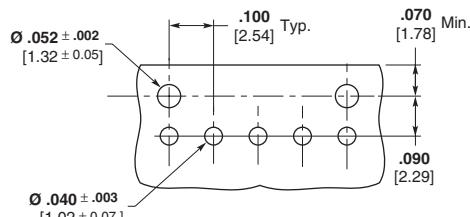
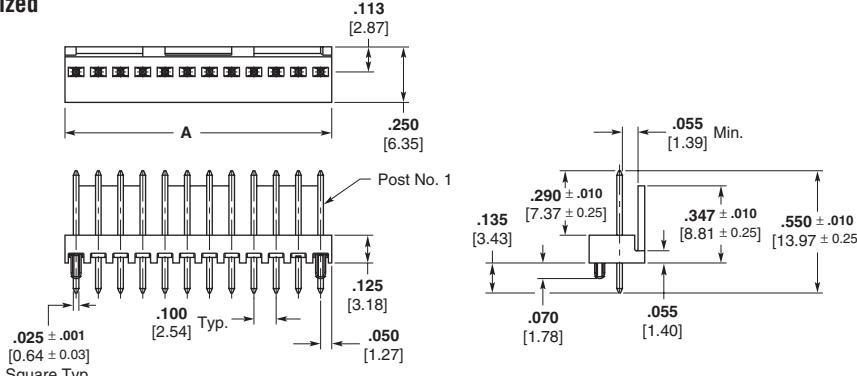
Base number **647609** plus prefix-and-suffix
1- — -0

The correct ordering number is
1-647609-0

The set of numbers in **bold** face are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647609-2	3-647609-2
3	647609-3	3-647609-3
4	647609-4	3-647609-4
5	647609-5	3-647609-5
6	647609-6	3-647609-6
7	647609-7	3-647609-7
8	647609-8	3-647609-8
9	647609-9	3-647609-9
10	1-647609-0	4-647609-0
11	1-647609-1	4-647609-1
12	1-647609-2	4-647609-2

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

MTA-100 Headers with Retention Peg—Straight**Friction Lock****Polarized**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Base Part Numbers

Friction Lock		Polarized	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated			
647609	2-12 32-42	647623	2-12 32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647626	2-12 32-42	647624	2-12 32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647627	2-12 32-42	647625	2-12 32-42

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Material and Finish

Housing—UL94V-0 rated, thermoplastic, black

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].
- This product can be mounted in the middle of the PC Board as shown in the PCB layout.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with right-angle posts would be:

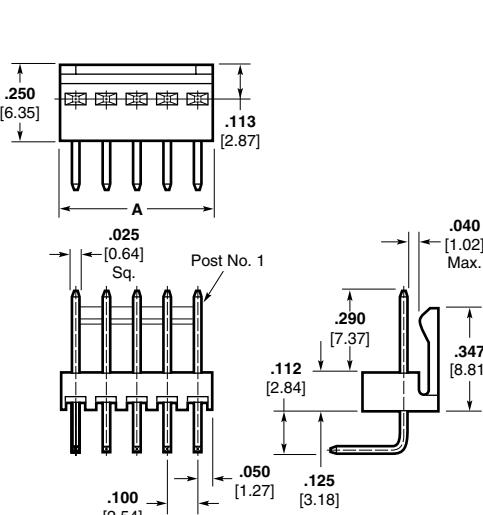
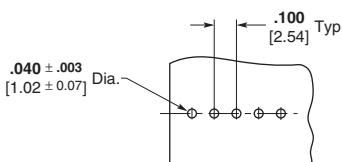
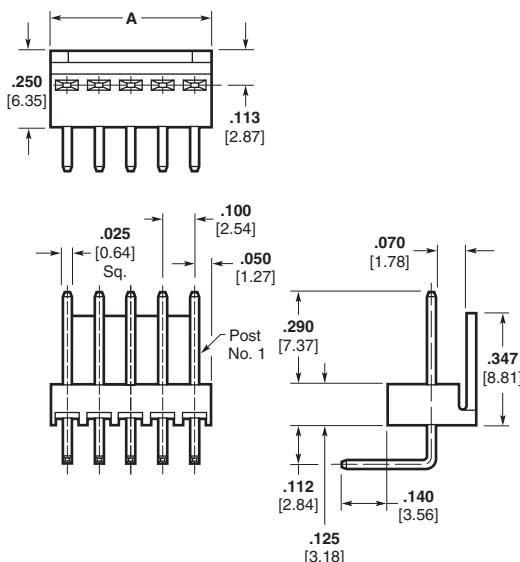
Base number **647630** plus prefix-and-suffix
1- — -0

The correct ordering number is
1-647630-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647630-2	3-647630-2
3	647630-3	3-647630-3
4	647630-4	3-647630-4
5	647630-5	3-647630-5
6	647630-6	3-647630-6
7	647630-7	3-647630-7
8	647630-8	3-647630-8
9	647630-9	3-647630-9
10	1-647630-0	4-647630-0
11	1-647630-1	4-647630-1
12	1-647630-2	4-647630-2

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

MTA-100 High Profile Headers—Right-Angle**Friction Lock****Right-Angle Post (.025 [0.64] Square)****Polarized****Right-Angle Post (.025 [0.64] Square)**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern
for .062 [1.57] Thk. PC Board

Base Part Numbers

Friction Lock		Polarized	
Right-Angle Posts		Right-Angle Posts	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated			
647630	2-12 32-42	647651	2-12 32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647629	2-12 32-42	647653	2-12 32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647628	2-12 32-42	647652	2-12 32-42

Note:

Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Material and Finish**Housing** —

2–12 Position — UL94V-0 rated, nylon, black

13–18 Position — UL94V-0 rated, LCP, black

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel**Notes:**

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647047** plus prefix-and-suffix
1- — 0

The correct ordering number is
1-647047-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

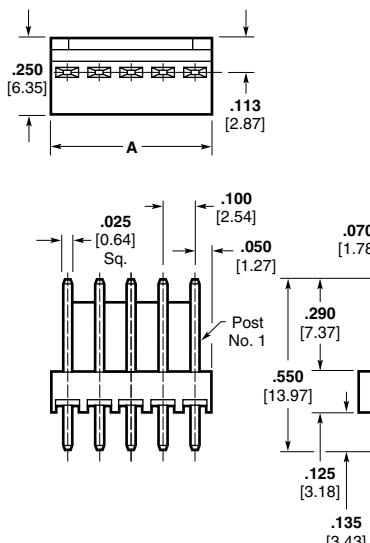
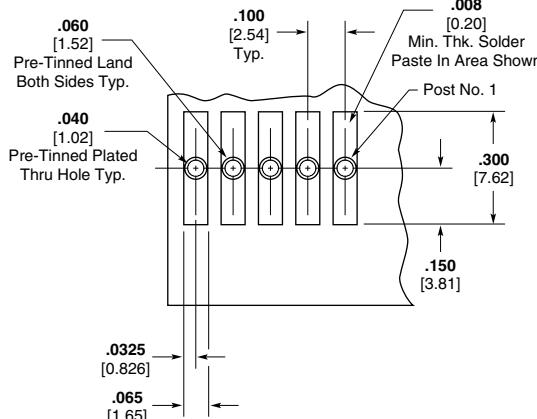
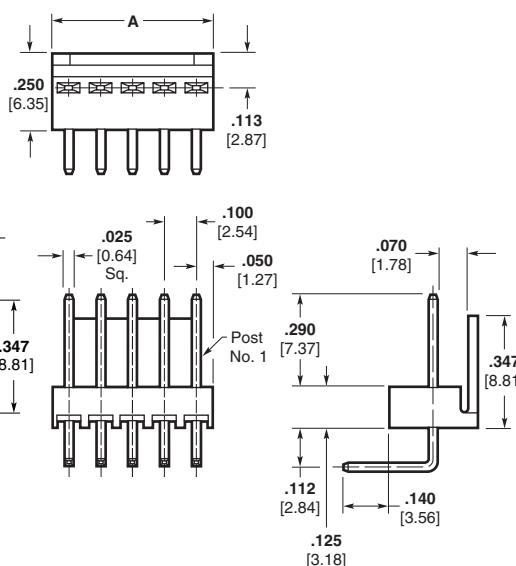
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647047-2	3-647047-2
	thru	
12	1-647047-2	4-647047-2
13	1-647047-3	NA
	thru	
18	1-647047-8	NA

See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

For use with Infrared Reflow Process

Maximum Temperature Rating: 2–12 Position: 280°C
13–18 Position: 235°C

Straight Post (.025 [0.64] Square)**Right-Angle Post (.025 [0.64] Square)**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

Base Part Numbers

Header Part Nos.	Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts		
	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated							
647047	2–18 32–42	647298	2–18 32–42	647048	2–18 32–42		
Standard UL94V-0, .000030 [0.00076] Gold Plated							
647109	2–18 32–42	647300	2–18 32–42	647114	2–18 32–42		
Standard UL94V-0, .000015 [0.00038] Gold Plated							
647075	2–18 32–42	647299	2–18 32–42	647076	2–18 32–42		

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA-100 Friction Lock High Temperature Headers—Straight and Right-Angle**Material and Finish****Housing**

2–12 Position — UL94V-0 rated, nylon, black
13–18 Position — UL94V-0 rated, LCP, black

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.
For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts would be:

Base number **647050** plus prefix-and-suffix
1- — 0

The correct ordering number is
1-647050-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

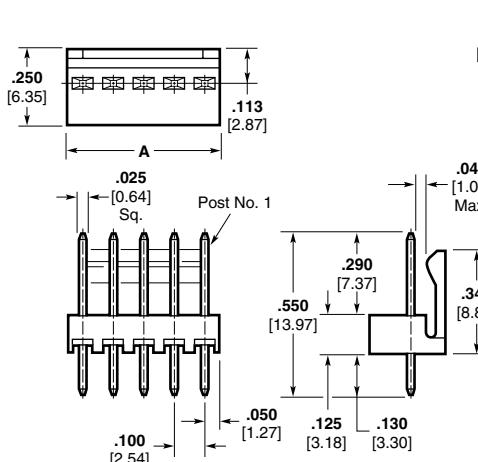
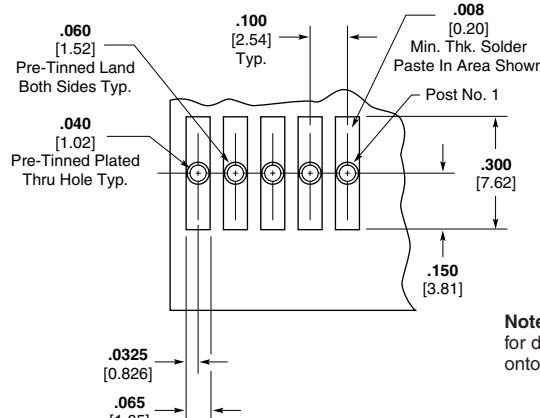
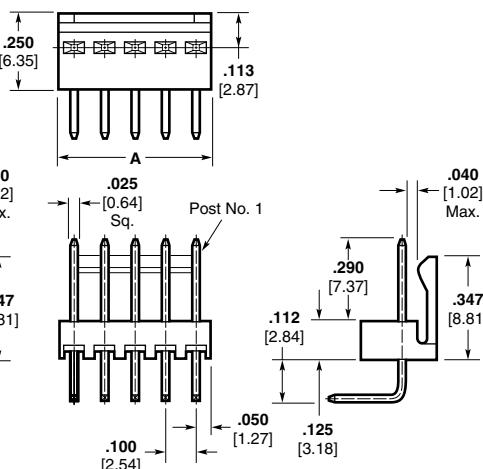
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647050-2	3-647050-2
	thru	
12	1-647050-2	4-647050-2
13	1-647050-3	NA
	thru	
18	1-647050-8	NA

See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

For use with Infrared Reflow Process

Maximum Temperature Rating: 2–12 Position: 280°C
13–18 Position: 235°C

Straight Post (.025 [0.64] Square)**Right-Angle Post (.025 [0.64] Square)**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062 [1.57] Thick PC Board

Base Part Numbers

Header Part Nos.	Straight Posts		Straight Posts (Tube Loaded)		Right-Angle Posts	
	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.
Standard UL94V-0, Tin Plated						
647050	2–18 32-42	647295	2–18 32-42	647051	2–18 32-42	
Standard UL94V-0, .000030 [0.00076] Gold Plated						
647116	2–18 32-42	647297	2–18 32-42	647117	2–18 32-42	
Standard UL94V-0, .000015 [0.00038] Gold Plated						
647078	2–18 32-42	647296	2–18 32-42	647079	2–18 32-42	

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

Material and Finish**Housing**

2-12 Position — UL94V-0 rated, nylon, black
13-18 Position — UL94V-0 rated, LCP, black

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.
- To determine header overall length (dim. A) multiply .100 x the number of posts. Example: .100 x 10 posts equals 1.000 inch [25.4 mm].

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14, 15 and 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position surface mount polarized header would be:

Base number **647106** plus prefix-and-suffix
1- — -0

The correct ordering number is
1-647106-0

The set of numbers in **bold face** are the RoHS equivalent version of the standard product. Example:

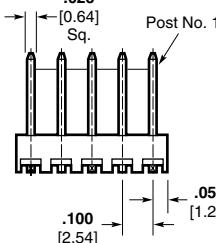
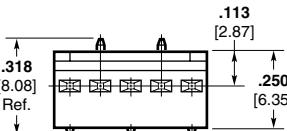
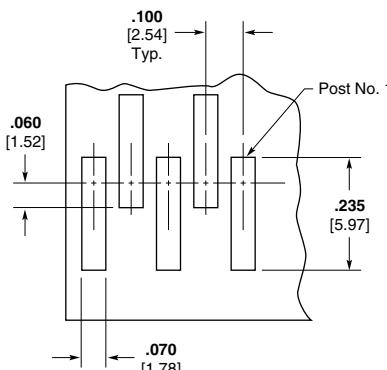
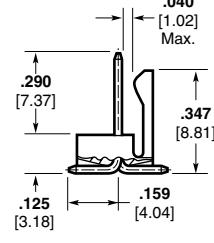
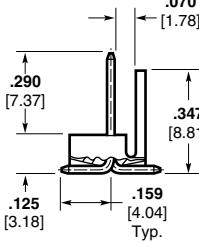
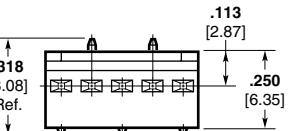
No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	647106-2	3-647106-2
	thru	
12	1-647106-2	4-647106-2
13	1-647106-3	NA
	thru	
18	1-647106-8	NA

See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

MTA-100 Polarized and Friction Lock Surface Mount Headers—Straight**For use with Infrared Reflow Process**

Maximum Temperature Rating: 2-12 Position: 280°C
13-18 Position: 235°C

Polarized Header**Friction Lock Header**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended PC Board Layout for use with .010 [0.25] Thick Stencil

Base Part Numbers

Polarized Headers		Friction Lock Headers	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated			
647106	2-18 ¹ 32-42	647166	2-18 ¹ 32-42
Standard UL94V-0, .000030 [0.00076] Gold Plated			
647108	2-18 ¹ 32-42	647168	2-18 ¹ 32-42
Standard UL94V-0, .000015 [0.00038] Gold Plated			
647107	2-18 ¹ 32-42	647167	2-18 ¹ 32-42

¹ Availability may vary depending on number of posts. Alternate packaging may be available upon request. Minimums may apply. Contact product engineer or product manager for details.

Note: Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.

MTA-100 Shrouded Headers—Straight and Right-Angle**Material and Finish**

Housing—UL94V-0 rated, polyester, black

Posts—Copper alloy, tin plated; or .000030 [0.00076] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Headers with .000015 [0.00038] gold plated post are available upon request. Minimums may apply.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 14 and 15.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644486** plus prefix-and-suffix

1- —0

The correct ordering number is
1-644486-0

See page 15 for an explanation of RoHS lead free equivalents.

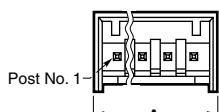
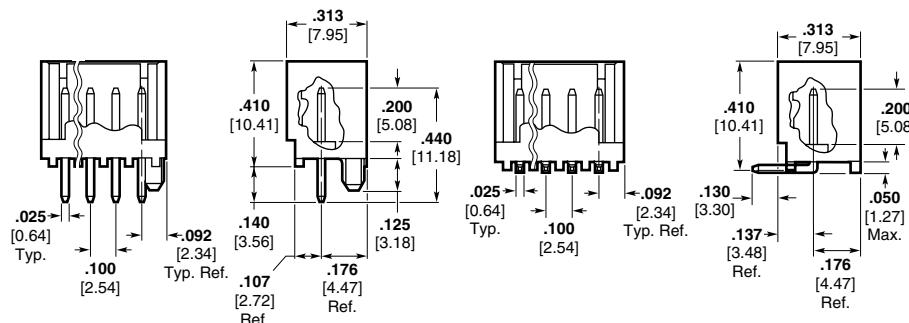
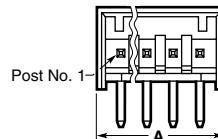
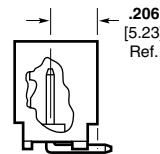
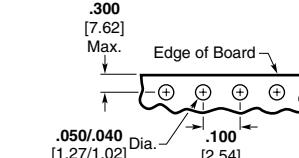
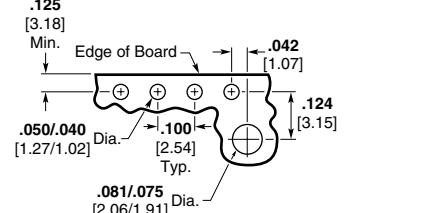
Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

Notes:

- Select load headers (omitted pin headers) are available upon request. Please contact product engineer or product manager for details.
- MTA-100 shrouded headers **do not mate** with CST-100 II housings.

Header Length

No. of Circuits	Dim. A	Prefix/ Suffix
2	.284 7.21	-2
3	.384 9.75	-3
4	.484 12.29	-4
5	.584 14.83	-5

Straight Post (.025 [0.64] Square)**Right-Angle (.025 [0.64] Square)****Front Bend****Rear Bend**

Note: Consult Product Drawing for details on placing headers onto PC boards.

Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)**Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)****Base Part Numbers**

Straight Posts				Right-Angle Posts			
With Pegs		Without Pegs		Without Pegs Only		Front Bend	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated							
644486	2-14 22-34	644861	2-14 22-34	644488	2-14 22-34	644803	2-14 22-34
Standard UL94V-0, .000030 [0.00076] Gold Plated							
644487	2-14 22-34	—	—	644489	2-14 22-34	—	—

Product Facts

- Low cost wire-to-board interconnections
- Wide wire range for single contact
- Tin and gold plated contacts
- Mates with specified MTA and similar competitive notched headers
- Plastic latching feature in housing helps prevent contact backout
- Locking ramps and polarizing tabs are standard
- For keying purposes use keying plug 641994-1 (page 17)
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see pages 21 thru 29 and 32.

See page 15 for an explanation of RoHS lead free equivalents.

Performance Data

Voltage Rating — 250 vac

Current Rating — 4 amp max.

Low-Level Resistance — 6 mΩ max. initial; 10 mΩ max. final

Insulation Resistance — 1000 MΩ min. initial; 100 MΩ min. final

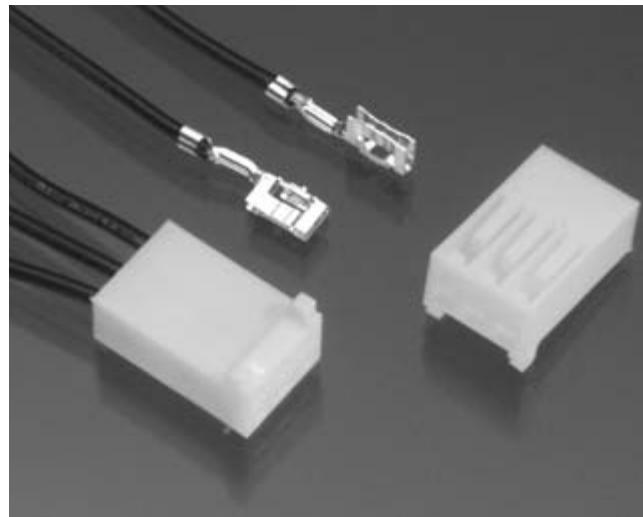
Operating Temperature — -55° C to +105° C

Technical Documents

Product Specification
108-1948

Application Specification
114-13036

Instruction Sheet
408-8493

.100 [2.54] Centerline CST-100 II Crimp Contacts and Housings**Contacts**

Part Numbers		
Tin Plated	15 Au Gold Plated	30 Au Gold Plated
1375819-1 (Strip)	1375819-2 (Strip)	1375819-3 (Strip)
1445336-1 (Loose Piece)	1445336-2 (Loose Piece)	1445336-3 (Loose Piece)

Material and Finish (RoHS Compliant)

Phosphor bronze, pretinned or .000015 [.00038] gold, over nickel .000030 [.00076] gold over nickel

Wire Range — 22–26 AWG [0.35–0.13 mm²]

Max. Ins. Dia. — .065 [1.65]

Housing***Material (RoHS Compliant)**

UL94-V0 rated, nylon, white

No. of Pos.	Dim. A	Part Numbers	No. of Pos.	Dim. A	Part Numbers
2	.220 5.59	1375820-2	16	1.620 41.15	1-1375820-6
3	.320 8.13	1375820-3	17	1.720 43.69	1-1375820-7
4	.420 10.67	1375820-4	18	1.820 46.23	1-1375820-8
5	.520 13.21	1375820-5	19	1.920 48.77	1-1375820-9
6	.620 15.75	1375820-6	20	2.020 51.31	2-1375820-0
7	.720 18.29	1375820-7	21	2.120 53.85	2-1375820-1
8	.820 20.83	1375820-8	22	2.220 56.39	2-1375820-2
9	.920 23.37	1375820-9	23	2.320 58.93	2-1375820-3
10	1.020 25.91	1-1375820-0	24	2.420 61.47	2-1375820-4
11	1.120 28.45	1-1375820-1	25	2.520 64.01	2-1375820-5
12	1.220 30.99	1-1375820-2	26	2.620 66.55	2-1375820-6
13	1.320 33.53	1-1375820-3	27	2.720 69.09	2-1375820-7
14	1.420 36.07	1-1375820-4	28	2.820 71.63	2-1375820-8
15	1.520 38.61	1-1375820-5			

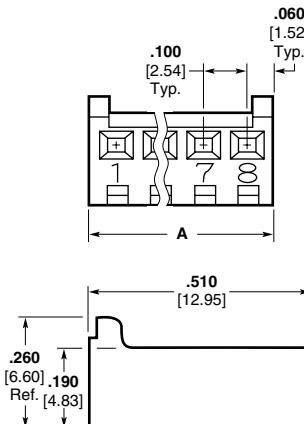
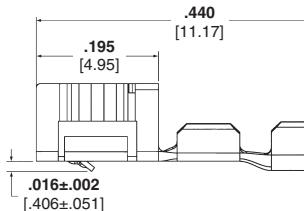
Application Tooling

Loose Piece Contacts — Hand Tool No. 58517-3 (408-4064)

Strip Contacts —

AMP-O-LECTRIC Model "G" Termination Machine* Applicator No. 567373-3 (Request Catalog 65828) AMP-O-MATIC Stripper-Crimper Machine* Applicator No. 567910-1 or 567827-1 (with CQM) (Request Catalog 65004) AMPOMATOR CLS IIIG Lead Making Machine* (Request Catalog 82659)

*Requires applicators. For part numbers, call Technical Support.



*Housings without polarizing tabs may be manufactured upon request. Minimums may apply. Contact product engineering or product manager for details.

CST-100 II Shrouded Headers—Straight and Right-Angle**Material and Finish**

Housing—UL94V-0 rated, polyester, black

Posts—Copper alloy, tin plated; or .000030 [0.00076] gold over nickel

Notes:

- Post(s) can be omitted for keying purposes. Specify the desired post(s) to be omitted using the figure to identify Post No. 1.
- Headers with .000015 [0.00038] gold plated posts are available upon request. Minimums may apply.
- Gold headers are duplex plated, gold on mating end of post and tin on the solder tail.

For mateability options, see matrix on pages 12 and 13.

For mating half visuals, see page 31.

Header Ordering Information

The "Base Part Numbers" Chart at right shows the base part number and number of posts available for the described headers.

Prefixes and suffixes are determined by the number of post positions in the header. For example, the complete part number for a 10-position header with straight posts and with pegs would be:

Base number **644893** plus prefix-and-suffix

1- — 0

The correct ordering number is
1-644893-0

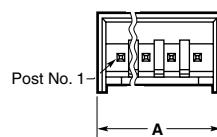
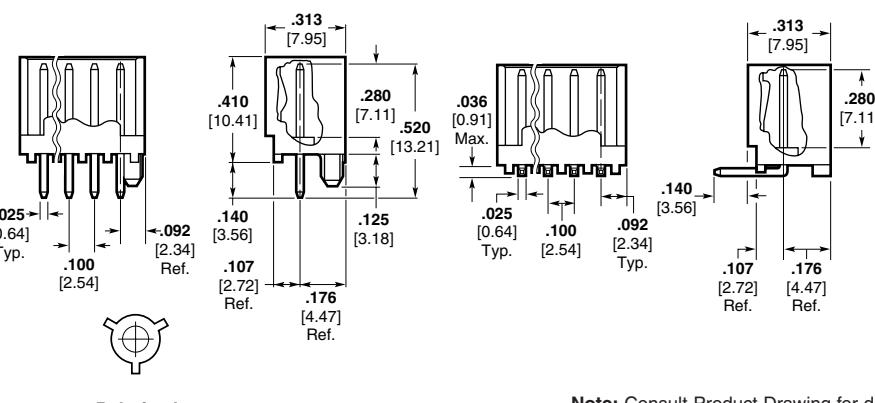
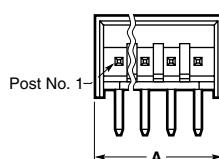
The set of numbers in **bold** face are the RoHS equivalent version of the standard product. Example:

No. of Pos.	Standard Prefix/Suffix	Lead Free RoHS Prefix/Suffix
2	644893-2	3-644893-2
thru		
14	1-644893-4	4-644893-4

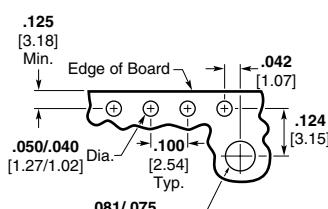
See page 15 for an explanation of RoHS lead free equivalents.

Note: All RoHS equivalent part numbers may not be available upon catalog release. If the number you need is not available, please contact Product Engineering to expedite your request.

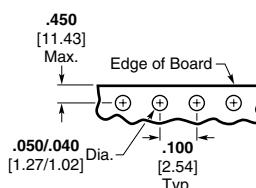
Note: CST-100 II shrouded headers **only** mate with CST-100 II housings. All the MTA-100 headers except the MTA-100 shrouded headers mate with CST-100 II housings.

Straight Post (.025 [0.64] Square)**Right-Angle (.025 [0.64] Square)**

Note: Consult Product Drawing for details on placing headers onto PC boards.



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)



Recommended Mounting Hole Pattern for .062 [1.57] Thk. PC Board (Solder Side of Board Shown)

Base Part Numbers

Straight Posts					
With Pegs		Without Pegs		Right-Angle Posts Without Pegs Only	
Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.	Header Part Nos.	No. of Posts/ RoHS Equiv.
Standard UL94V-0, Tin Plated					
644893	2-14 32-44	644892	2-14 32-44	644894	2-14 32-44
Standard UL94V-0, .000030 [0.00076] Gold Plated					
644897	2-14 32-44	644896	2-14 32-44	644898	2-14 32-44

Header Length

No. of Circuits	Dim. A	Prefix/ Suffix	No. of Circuits	Dim. A	Prefix/ Suffix	No. of Circuits	Dim. A	Prefix/ Suffix
2	.284 7.21	-2	5	.584 14.83	-5	8	.884 22.45	-8
3	.384 9.75	-3	6	.684 17.37	-6	9	.984 24.99	-9
4	.484 12.29	-4	7	.784 19.91	-7	10	1.084 27.53	1- -0