REV	REASON	TEST PROBE RECEPTACLE	ENGINEERING RELEASE DATE 1-15-90 APPROVAL FRANK BOYD

1. INTRODUCTION

This specification covers the requirements for application of AMP* Test Probe Receptacle for manual application to a printed circuit (pc) board. These receptacles are designed to provide low-cost test probe capability of circuits on pc boards, without interruption of operating currents.

NOTE *All dimensions in this specification are given in inches unless otherwise specified. Metric equivalents (mm) can be obtained by multiplying 25.4.*

Figure 1 shows the various AMP Test Probe Receptacles available and their product features.

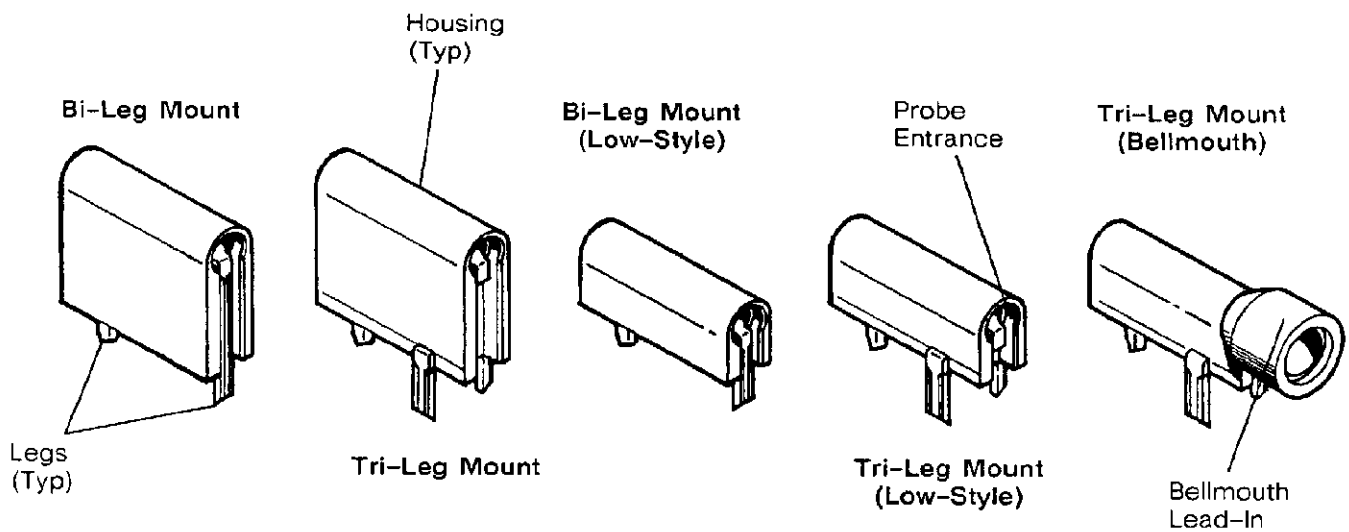


Fig. 1. Product Features

2. REFERENCE MATERIAL

2.1. Customer Assistance

Product Part Number 1-582118-4 and Product Code 1335 are representative numbers that identify the Test Probe Receptacles. These numbers are used in the AMP network of customer service to access tooling and product application information. This service is provided by your local AMP representative (Field Sales Engineer, Field Application Engineer, etc.) or, after purchase, by calling the CUSTOMER HOTLINE number at the top of this page.

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2.2. Engineering Drawings

Customer Drawings for specific products are available from the responsible AMP Engineering Department via the service network. The information contained in the Customer Drawings takes priority if there is a conflict with this specification or with any other technical documentation supplied by AMP Incorporated.

2.3. Specifications

AMP Product Specification 108-1082 covers product performance requirements for this product line.

2.4. Instructional Material

AMP Corporate Bulletin No. 52 is available upon request and can be used as a guide in soldering. This bulletin provides information on various flux types and characteristics along with the commercial designation and flux removal procedures. A checklist is attached to the bulletin as a guide for information on soldering problems.

3. REQUIREMENTS

3.1. Printed Circuit (PC) Board Layout Requirements

PC board layout requirements shall be as specified in Figure 2.

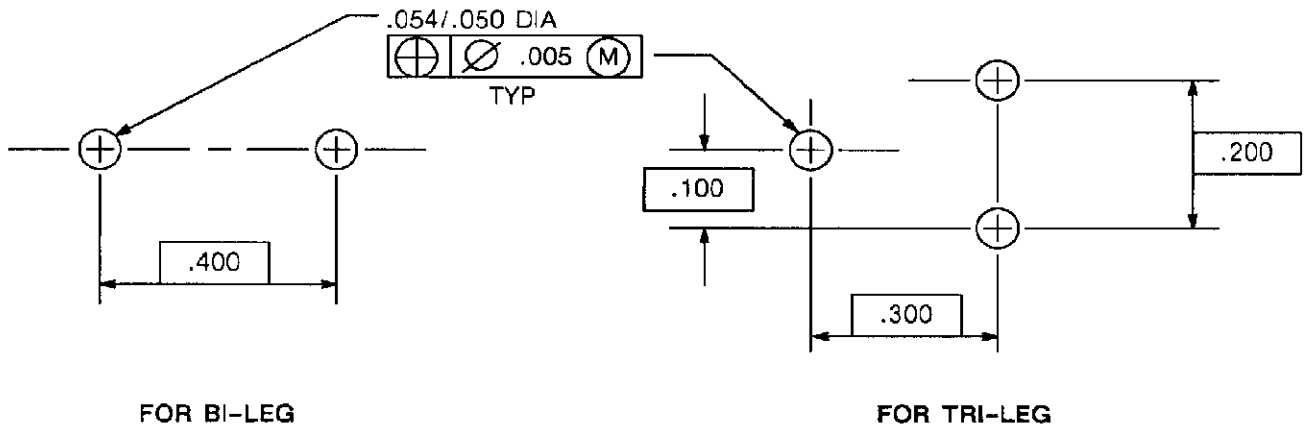


Fig. 2. Recommended Mounting Hole Pattern

3.2. PC Board Thickness

The AMP Test Probe Receptacles fit a range of pc board thicknesses from .031 to .125 depending on the length of the receptacle solder tails.

3.3. Mounting Requirements

Insert solder tails into through holes of pc board, making sure the receptacle is parallel to and resting on the board. To hold the socket in place during handling and soldering, solder tail clinching may be desired (only on solder tails which are not "V" shaped). The method of clinching is at the discretion of the customer. Avoid applying excessive force to the end of the solder tails (perpendicular to the board). This may dislodge the contact from its proper position in the housing.

NOTE *Receptacles with the V-shaped solder tail feature do not need clinching to hold them in place.*

3.4. Soldering and Cleaning

A. Flux Selection

Prior to soldering, or during the reflow process, a mildly activated or activated rosin base flux shall be used. Proper flux selection will depend on the type of pc board used, and any components mounted on the board. Flux must also be compatible with the customer's soldering process, as well as with manufacturing and safety requirements.

B. Soldering Procedures

1. The temperature to which the receptacle is subject shall not exceed 200C for more than 1 minute.

2. The receptacle design is compatible with vapor phase, infrared reflow, and wave soldering processing. For suitability of other soldering processes, contact AMP Engineering.

C. Cleaning

1. Removal of fluxes, residues, and activators is mandatory. Cleaning procedures are chosen by the customer and depend on the type of flux used on the solder line.

2. Receptacle materials are compatible with the following solvents:

   Terpene Based Hydrocarbon Solvents
   1, 1, 1 Trichloroethane
   Freon TM†
   Freon TS†
   Freon TMC†

For suitability with other cleaning solvents, contact AMP Engineering.

D. Drying

When drying cleaned assemblies and pc boards, make certain that temperature and duration do not exceed the above recommendation. Excessive temperatures can cause housing and/or plating degradation.

† Designation of E.I. DuPont de Nemours and Co., Inc.

4. VISUAL AID

Figure 3 shows a typically applied AMP Test Probe Receptacle. The illustration depicts, in general, the conditions that production personnel should check to ensure a properly soldered product. Applications which are not visually correct should be dimensionally inspected using the information given in the main body of this specification.

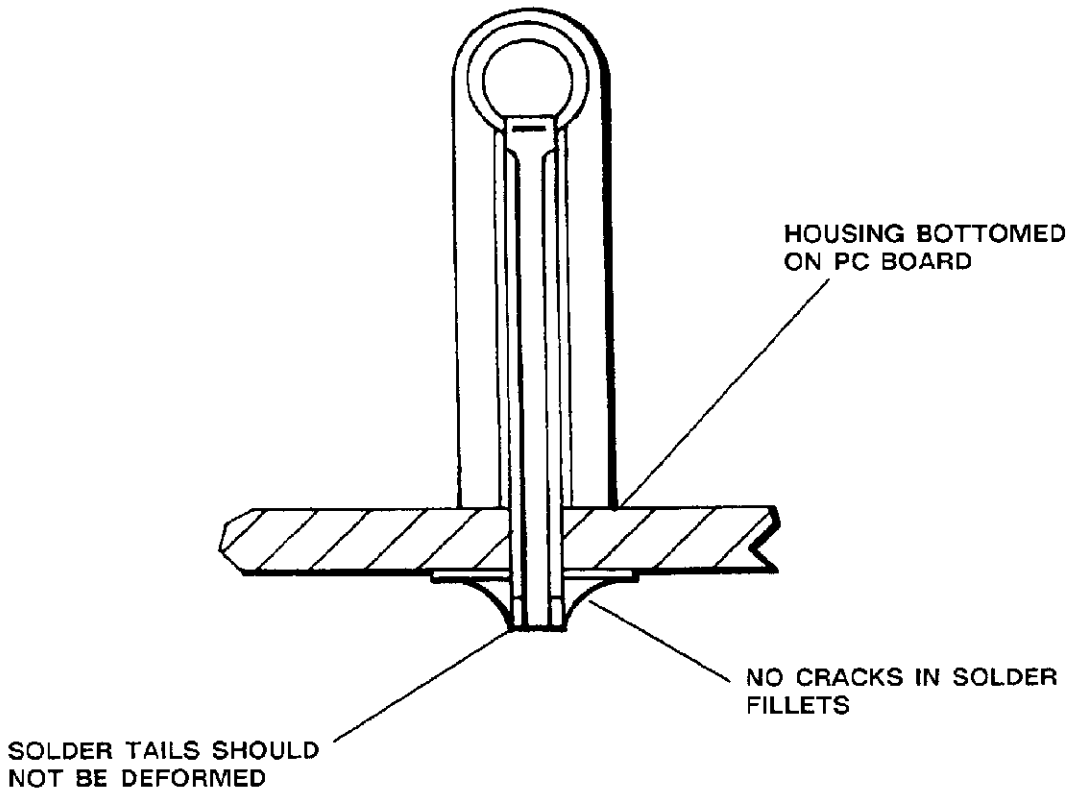


FIG. 3. VISUAL AID