AMP SURFACE MOUNT MODULAR JACK

1. SCOPE.

This specification covers the requirements for application of AMP Surface mount Modular Jacks.

2. REFERENCE MATERIAL

2.1 Customer drawing.

A customer drawing takes priority if there is a conflict with this specification or with any other technical documentation supplied by AMP.

2.2 Product specification.

Product specification 108-19117 provides information pertaining to performance, testing and quality requirements.

3. REQUIREMENTS

3.1 Printed Circuit Board layout.

The suggested Printed Circuit Board patterns can be found on the related customer drawing. If a solder mask is used, the mask must not exceed the height of the pad by more than 0,05mm. Since the connector housing may rest on top of the solder mask, an excessive high mask will allow too much space between the solder tine and pad for a good solder joint. A solder joint under these conditions would be weak and would not provide long term performance for the connector.

3.2 Connector placement.

After placement, no visible parts of the solder tines shall overhang the solder pads.

3.3 Soldering

A. Solder process

The Modular Jack design is compatible with vapour phase and infrared solder processing. The Jack will withstand temperatures of 260°C for 3 minutes. Due to the many variables involved with the reflow process (e.g. component density, orientation etc.), we recommend that the user conduct trial runs under actual manufacturing conditions to ensure product and process compatibility.
The cleaning procedure selected will depend on the type of flux and the degree of cleanliness required by the user.

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B. Solder paste thickness
Solder paste thickness should be as indicated on the applicable customer drawing.

3.4 Inspection.

A. Solder tines
A minimum of 75% of the length of a solder tine shall show:
- a placement on the path in such a way that a solder fillet is allowed at both long sides of the solder tine
- a good wetting between solder tine and path
- a satin lustre on the surface of the fillet. That fillet should be smooth and free from voids, cracks and solder balls

B. Extra metal bracket
On the extra metal bracket a solder fillet between the bracket and the pad should be present over minimum 50% of the length of the 3 visible sides. It is not a requirement that the edges (= material thickness) show a good wetting.
If for soldering for the extra metal bracket another shape than one uninterrupted pad is applied at least 50% of the individual pads should show a solder fillet between the bracket and the pads.

4. PROCESSING TAPEMOUNTED PRODUCTS.

For those products which are tapemounted on a 60cm dia reel, a reel-opening device should be applied to prevent that during the de-reeling Modular Jacks are pulled-off from the tape by the flanges of the reel.
Figure 1 is a general view of the reel on the reel holder. In figure 2, suggested dimensions for the reel-opening device are given.

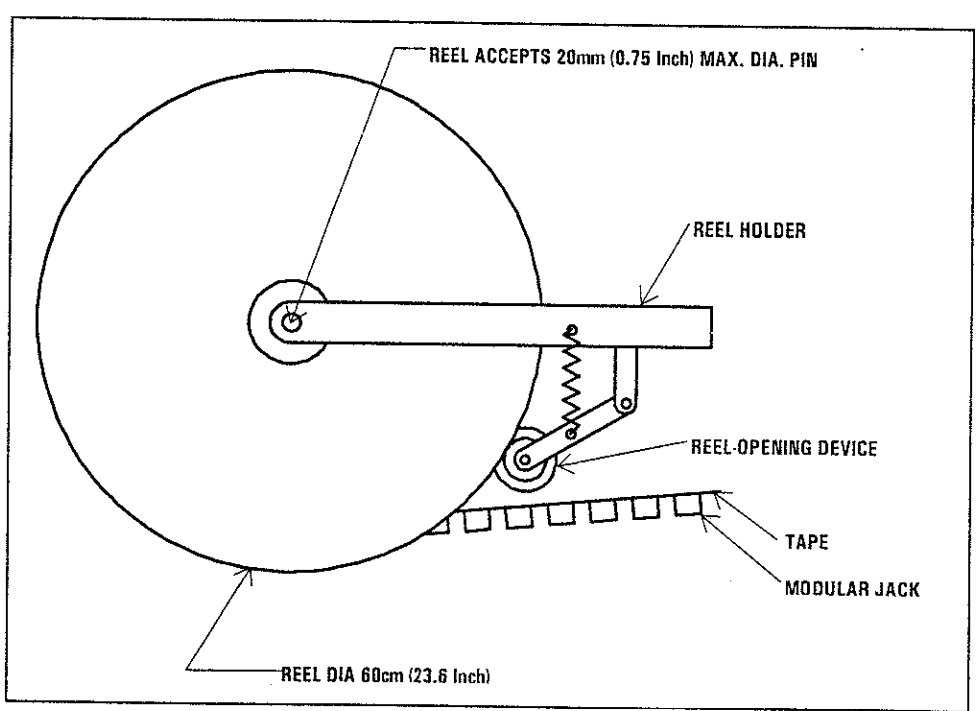

Figure 1:
General view of the reel on the reel holder

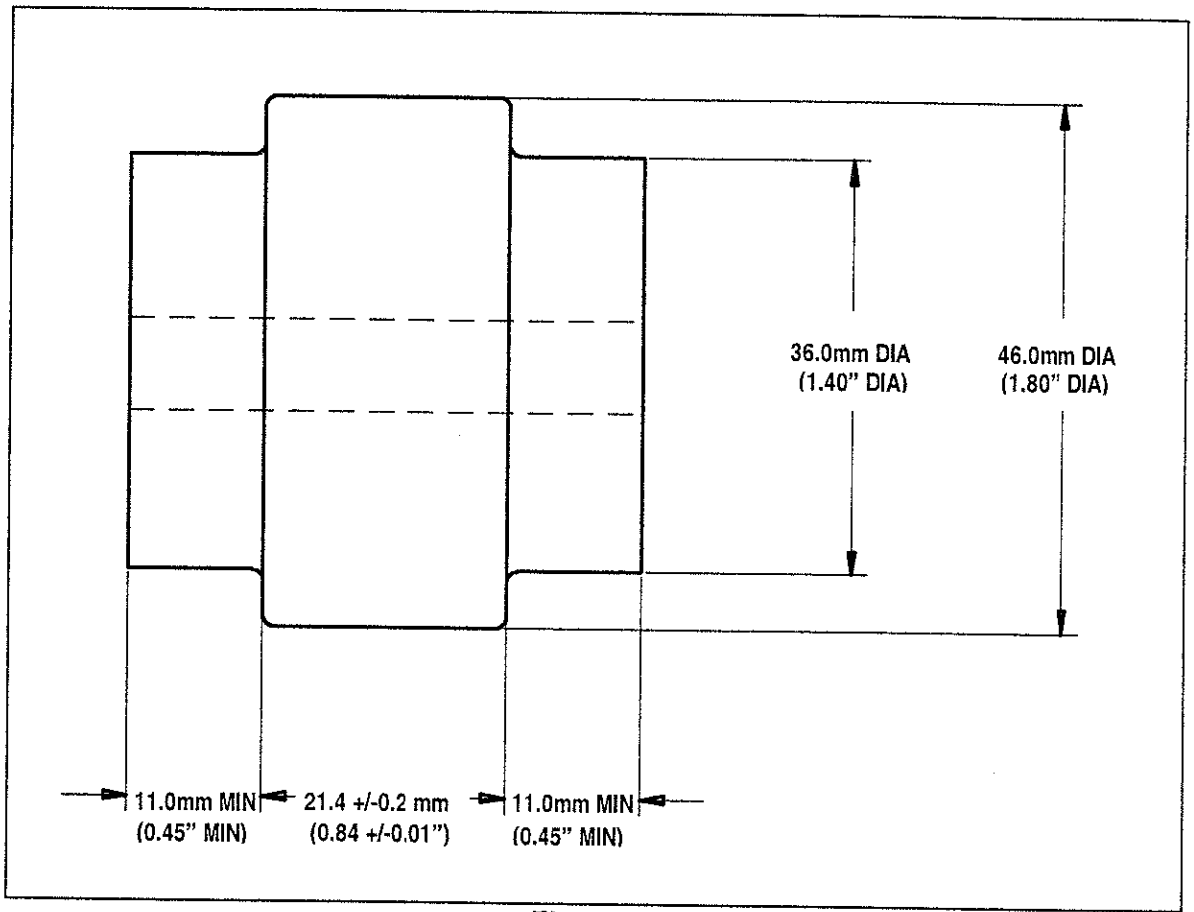

Figure 2:
Suggested dimensions for reel-opening device

5. PROCESS PRODUCTS PACKAGED IN EMBOSSED TAPE.

For those products which are packaged in Embossed Carrier Tape we follow the EIA-standard 481-3.

6. PANE GUIDELINES.

Panelstops should lean against the innerside of the panel. This to prevent that pull forces, coming from the Modular Plug Lead, will stress the solder joints.

In case of Modular Jacks without panel stops, the prevention that pull forces from the Modular Plug Lead go to the solder joints, the hole in the panel should be created in such a way that a stop is made.