

Abstract

Electrical connectors capable of being mounted on circuit substrates by BGA techniques are disclosed. Also disclosed is a method
5 for manufacturing such connectors. There is at least one recess on the exterior side of the connector elements. A conductive contact extends from adjacent the interior side of the into the recess on the exterior side of the housing. A controlled volume of solder paste is introduced into the recess. A fusible conductive element, in the form of solder balls is
10 positioned in the recess. The connector is subjected to a reflow process to fuse the solder ball to the portion of the contact extending into said recess. Contacts are secured in the insulative housing of the connector by deformable sections that minimize stress imposed on the housing, thereby reducing warpage. Solder resist areas are formed on central
15 portions of the contacts to promote uniformity of solder volume. As a result of these features, substantial coplanarity of the BGA array along the mounting interface of the connector is achieved.

