

DENDRITIC INTERCONNECTION SYSTEMABSTRACT

A technique of connecting members (12,14) utilizing dendrites (18) is provided. Dendrites are formed on one face of the first member in a given configuration. Dendrite receiving and securing material, preferably solder (20), is formed on a face of the second member in a configuration conforming to that of the dendrites on the one face. The members are then placed relative to each other with the dendrites in contact with the dendrite receiving and engaging material. An airtight seal (26) is provided forming a sealed chamber (28) between the first and second members. Thereafter, a vacuum is pulled causing the ambient air pressure to urge the two members toward each other which will embed the dendrites in the dendrite receiving and engaging material to form interconnection therebetween. In order to improve the bond the dendrites and dendrite receiving and securing material each contain a component which can form an intermetallic compound therebetween.

Fig. 1

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This Sheet Has Been Replaced