METHODS AND APPARATUS FOR UNPOWERED TESTING OF OPEN CONNECTIONS ON POWER AND GROUND NODES OF CIRCUIT DEVICES

Abstract

A method and apparatus for detecting open defects on grounded nodes of an electrical device using capacitive lead frame technology is presented. In accordance with the method of the invention, an accessible signal node that is capacitively coupled the grounded node is stimulated with a known source signal. A capacitive sense plate is capacitively coupled to the stimulated node and grounded node of the electrical device, and a measuring device coupled to the capacitive sense plate capacitively senses a resulting signal. The value of the capacitively sensed signal is indicative of the presence or non-presence of an open defect on one or both of the grounded node and stimulated signal node.

Figure 3