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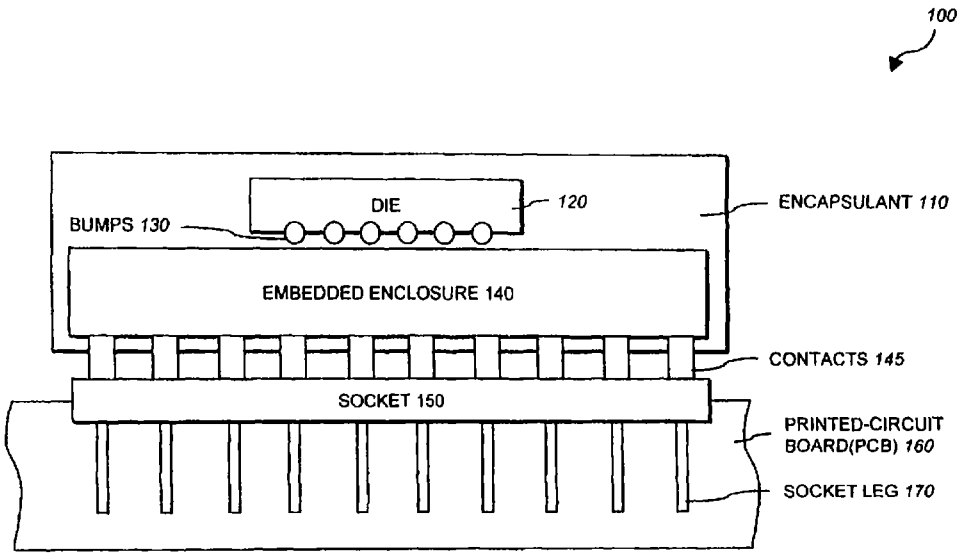
(54) Title: INTEGRAL CAPACITOR USING EMBEDDED ENCLOSURE FOR EFFECTIVE ELECTROMAGNETIC RADIATION REDUCTION




(57) Abstract: In one embodiment of the invention, an integral capacitor includes a power plane, a ground plane, and a dielectric layer The power plane has a power surface and a power periphery The power plane couples power to signals of an integrated circuit operating at a fundamental frequency. The first ground plane has a first ground surface and a first ground periphery. The first ground plane couples ground to the signals. The first ground plane is separated from the power plane by a first distance. The first ground surface is larger than the power surface and the first ground periphery extends at least a second distance from the power periphery. The second distance is at least larger than N times the first distance The dielectric layer is formed between the power plane and the first ground plane.

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