

INTEGRATED CIRCUIT CAPACITOR INCLUDING ANCHORED PLUGS

Abstract

An integrated circuit capacitor includes a substrate, a first dielectric layer adjacent the substrate and having a first trench therein, and a first metal plug extending upwardly into the first trench. An interconnection line overlies the first trench and contacts the first metal plug to define anchoring recesses on opposite sides of the first metal plug. A second dielectric layer is on the interconnection line and has a second trench therein. A second metal plug extends upwardly into the second trench. More particularly, the second metal plug includes a body portion extending upwardly into the second trench, and anchor portions connected to the body portion and engaging the anchoring recesses to anchor the second metal plug to the interconnection line. Because the second metal plug is anchored, a depth of the second trench can be greater without the metal plug becoming loose and separating from the underlying interconnection line.

Figure 1

REPLACEMENT SHEET
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