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(54) Title: AN INDUCTOR COIL

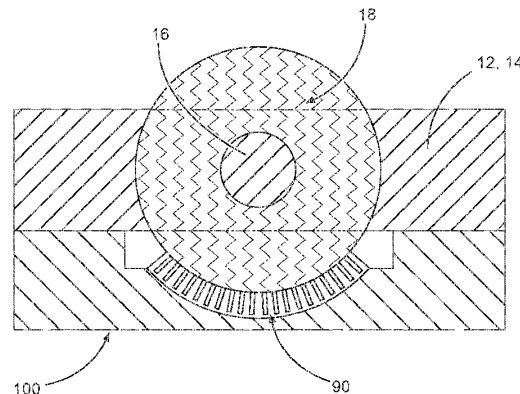


Fig. 5

(57) **Abstract:** The present invention relates to an inductor coil, comprising: a first component (12); a second component (14); a length of conductor (18); a heat sink (100); wherein, the first component is located adjacent to the second component; wherein, a core (16) is formed from the first component and the second component; wherein, a first part of the length of conductor is wound around at least the core to form a plurality of turns of conductor; wherein, the heat sink comprises a thermally conductive material; wherein, the heat sink comprises a first part (90, 110) and a second part; wherein, first part of the heat sink has a first material and/or structural characteristic and the second part of the heat sink has a second material and/or structural characteristic different to the first material and/or structural characteristic; and wherein, an inner surface of the first part of the heat sink is in contact with an outer surface of a part of the plurality of turns of conductor.

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