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(54) **EDGE-STRUCTURED LEADFRAME FOR EMBEDDED DIE PACKAGING OF POWER SEMICONDUCTOR DEVICES**

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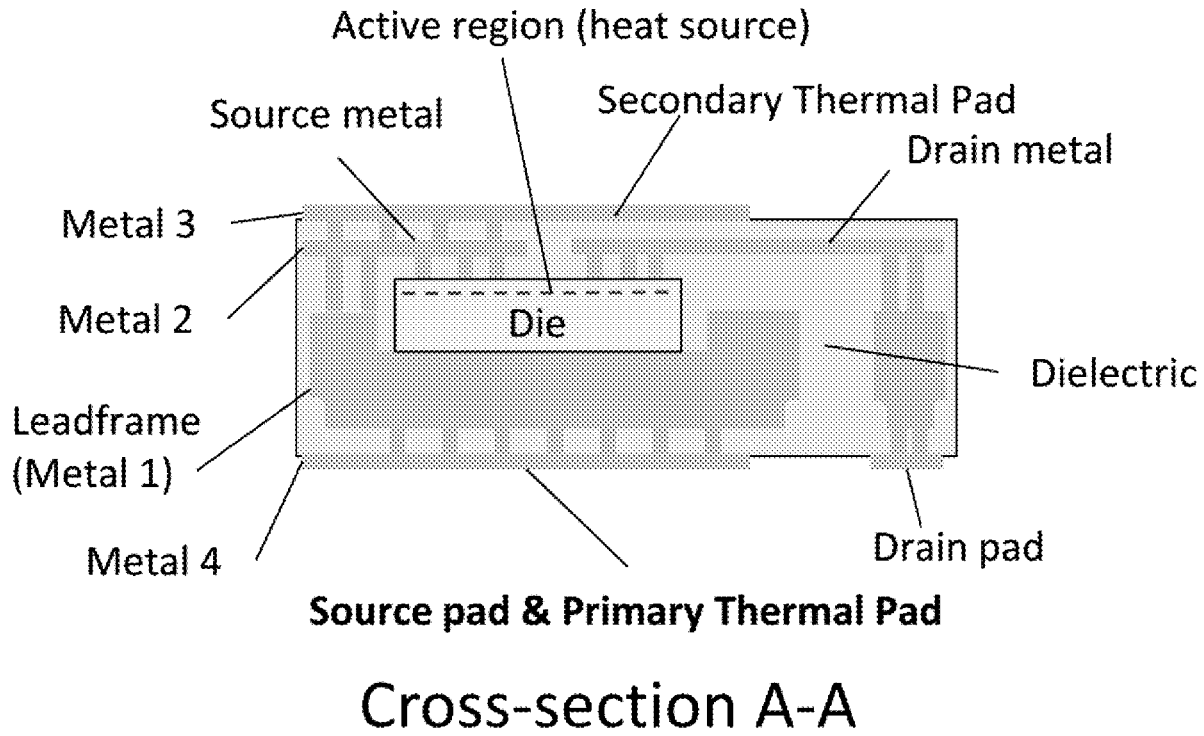
(57) **ABSTRACT**

Embedded die packaging for high voltage, high temperature operation of power semiconductor switching devices is disclosed, wherein a power semiconductor die is mounted on a leadframe and embedded in laminated body comprising a layer stack of a plurality of dielectric layers and electrically conductive layers. Electrical connections between contact pads of the power semiconductor die and external contact pads of the package comprise conductive vias extending through the dielectric layers. Edges of the leadframe are structured to provide vertical and lateral interlocking of the leadframe with surrounding dielectric, e.g. by providing a leadframe having a laterally scalloped and vertically undercut edge structure. Edges of the leadframe may be beveled.



Cross-section A-A