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(54) Title: PACKAGE COMPRISING A DIRECT BONDED METAL SUBSTRATE AND A COOLING JACKET, METHOD OF FORMING THE PACKAGE AND A DIRECT BONDED METAL SUBSTRATE

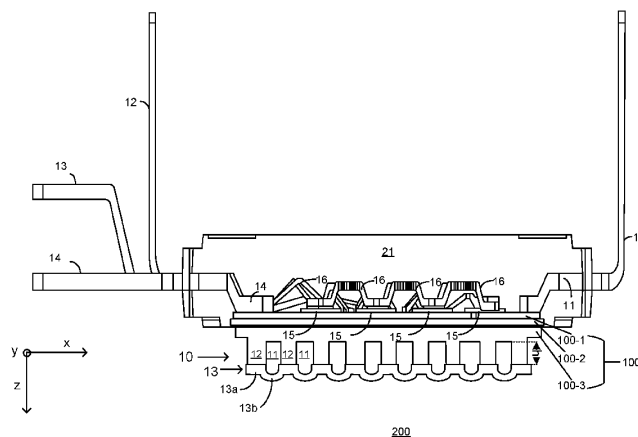


FIG. 2

(57) Abstract: A package includes a semiconductor die (15) disposed on a three-layer substrate (100). The three-layer substrate includes a ceramic layer (100-2) disposed between a top metal layer (100-1) and a bottom metal layer (100-3). The semiconductor die is disposed on the top metal layer. An array of mesas (10, 12) is defined in the bottom metal layer with grooves (11) between the mesas forming a path (P) for cooling fluid flow across a surface of the bottom metal layer.

[Continued on next page]

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