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(71) Applicant: **QROMIS, INC.** [US/US]; 2306 Walsh Avenue, Santa Clara, California 95051 (US).

(72) Inventors: **ODNOBLYUDOV, Vladimir**; c/o Qromis, Inc., 2306 Walsh Avenue, Santa Clara, California 95032 (US). **RISBUD, Dilip**; c/o Qromis, Inc., 2306 Walsh Avenue, Santa Clara, California 95051 (US). **AKTAS, Ozgur**; c/o Qromis, Inc., 2306 Walsh Avenue, Santa Clara, California 95051 (US).

(74) Agent: **LIU, Rong** et al.; Kilpatrick Townsend & Stockton LLP, Mailstop: IP Docketing-22, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309 (US).

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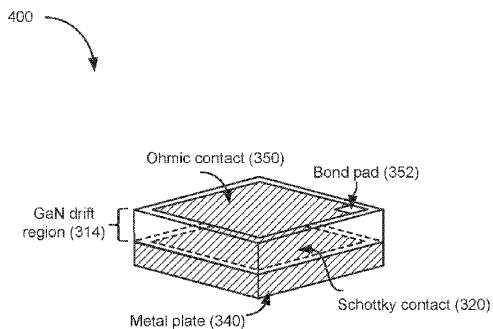


FIG. 4

(57) Abstract: A method of forming a semiconductor device includes providing an engineered substrate. The engineered substrate includes a polycrystalline ceramic core, a barrier layer encapsulating the polycrystalline ceramic core, a bonding layer coupled to the barrier layer, and a substantially single crystalline silicon layer coupled to the bonding layer. The method further includes forming a Schottky diode coupled to the engineered substrate. The Schottky diode has a top surface and a bottom surface, the bottom surface is coupled to the substantially single crystalline silicon layer. The method further includes forming a Schottky contact coupled to the top surface of the Schottky diode, forming a metal plating coupled to the Schottky contact, removing the engineered substrate to expose the bottom surface of the Schottky diode, and forming an ohmic contact on the bottom surface of the Schottky diode.

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