

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0213314 A1 TSAI et al.

(54) SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

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Appl. No.: 18/411,667

(22) Filed: Jan. 12, 2024

Related U.S. Application Data

Continuation of application No. 18/097,057, filed on Jan. 13, 2023, now Pat. No. 11,916,107, which is a continuation of application No. 16/856,817, filed on Apr. 23, 2020, now Pat. No. 11,557,650, which is a continuation-in-part of application No. 16/731,767, filed on Dec. 31, 2019, now Pat. No. 11,393,713.

Jun. 27, 2024 (43) **Pub. Date:**

Provisional application No. 62/955,871, filed on Dec. 31, 2019, provisional application No. 62/837,519, filed on Apr. 23, 2019, provisional application No. 62/837,519, filed on Apr. 23, 2019.

Publication Classification

(51) Int. Cl. H01L 29/06 (2006.01)H01L 21/265 (2006.01)H01L 21/306 (2006.01)H01L 21/3065 (2006.01)H01L 29/66 (2006.01)

(52) U.S. Cl.

CPC H01L 29/0653 (2013.01); H01L 29/66553 (2013.01); H01L 29/66568 (2013.01); H01L 21/26513 (2013.01); H01L 21/30604 (2013.01); H01L 21/3065 (2013.01)

(57)ABSTRACT

A semiconductor device including a FET includes an isolation insulating layer disposed in a trench of the substrate, a gate dielectric layer disposed over a channel region of the substrate, a gate electrode disposed over the gate dielectric layer, a source and a drain disposed adjacent to the channel region, and an embedded insulating layer disposed below the source, the drain and the gate electrode and both ends of the embedded insulating layer are connected to the isolation insulating layer.

