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(19) **United States**(12) **Patent Application Publication****LEE et al.**(10) **Pub. No.: US 2024/0213128 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **SEMICONDUCTOR PACKAGE**(71) Applicant: **Samsung Electronics Co., Ltd.**,
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(57)

ABSTRACT

A semiconductor package includes a wiring substrate, a solder ball on a lower surface of the wiring substrate, a ball land between the lower surface of the wiring substrate and the solder ball and having an upper surface having a circular shape, and a mask layer covering the lower surface of the wiring substrate and including an opening through which a portion of the ball land is exposed. The ball land includes a first land region which is exposed via the opening and has an upper surface having a semicircular shape with a first radius and a second land region which is integrated with a flat side surface of the first land region and has an upper surface having a semicircular shape with a second radius that is less than the first radius.

