

ABSTRACT

A semiconductor device includes a semiconductor die, a defect detection structure and an input-output circuit. The semiconductor die includes a central region and a peripheral region surrounding the central region. The peripheral region includes a left-bottom corner region, a left-upper corner region, a right-upper corner region and a right-bottom corner region. The defect detection structure is formed in the peripheral region. The defect detection structure includes a first conduction loop in the left-bottom corner region, a second conduction loop in the right-bottom corner region, a third conduction loop in the left-bottom corner region and the left-upper corner region and a fourth conduction loop in the right-bottom corner region and the right-upper corner region. The input-output circuit is electrically connected to end nodes of the first conduction loop, the second conduction loop, the third conduction loop and the fourth conduction loop.

FIG. 1