Abstract

SEMICONDUCTOR PACKAGE AND METHOD OF MOUNTING SEMICONDUCTOR DIE TO OPPOSITE SIDES OF TSV SUBSTRATE

A semiconductor device includes a wafer level substrate having a plurality of first conductive vias formed through the wafer level substrate. A first semiconductor die is mounted to the wafer level substrate. A first surface of the first semiconductor die includes contact pads oriented toward a first surface of the wafer level substrate. A first encapsulant is deposited over the first semiconductor die. A second semiconductor die is mounted to the wafer level substrate. A first surface of the second semiconductor die includes contact pads oriented toward a second surface of the wafer level substrate opposite the first surface of the wafer level substrate. A second encapsulant is deposited over the second semiconductor die. A plurality of bumps is formed over the plurality of first conductive vias. A second conductive via can be formed through the first encapsulant and connected to the first conductive via. The semiconductor packages are stackable. (Fig 3l)