ABSTRACT

SEMICONDUCTOR DEVICE

The invention offers technology for suppressing damage to semiconductor devices due to temperature changes. When flip-chip mounting a silicon chip on a buildup type multilayer substrate having a structure with a thinned core, a core having a small coefficient of thermal expansion is used in the multilayer substrate, and the coefficient of thermal expansion and glass transition point of the underfill are appropriately designed in accordance with the thickness and coefficient of thermal expansion of the core. By doing so, it is possible to relieve stresses inside the semiconductor package caused by deformation of the multilayer substrate due to temperature changes, and thereby to suppress damage to the semiconductor package due to temperature changes.

- Fig. 10 -