

ABSTRACT

A semiconductor package comprising first and second semiconductor structures spaced apart on a first substrate, a heat sink covering the first and second semiconductor structure and the first substrate, and a thermal interface material layer between the heat sink and the first and second semiconductor structures. The first semiconductor structure includes a first sidewall adjacent to the second semiconductor structure and a second sidewall opposite the first sidewall. The thermal interface material layer includes a first thermal interface material segment between the first and second semiconductor structures and a second thermal interface material segment protruding beyond the second sidewall. A first distance from a top surface of the first substrate to a lowest point of a bottom surface of the first thermal interface material segment is less than a second distance from the top surface of the first substrate to a lowest point of a bottom surface of the second thermal interface material segment.

FIG. 2