

TITLE:

SEMICONDUCTOR STRUCTURE AND MANUFACTURING METHOD THEREOF

ABSTRACT

A semiconductor structure includes following components. A first substrate has a first surface and a second surface opposite to each other. An HBT device is located on the first substrate and includes a collector, a base, and an emitter. A first interconnect structure is electrically connected to the base, located on the first surface, and extends to the second surface. A second interconnect structure is electrically connected to the emitter, located on the first surface, and extends to the second surface. A third interconnect structure is located on the second surface and electrically connected to the collector. An MOS transistor device is located on a second substrate and includes a gate, a first source and drain region, and a second source and drain region. Interconnect structures on the second substrate electrically connect the base to the first source and drain region and electrically connect the emitter to the gate.

FIG. 1E