ABSTRACT

SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE

A semiconductor device includes: a first electrode including a carbon layer; a second electrode; a variable resistance layer interposed between the first electrode and the second electrode; and a barrier layer interposed between the first electrode and the variable resistance layer, the barrier layer including nitrogen and carbon. A concentration of the nitrogen in the barrier is equal to or higher than that of the carbon in the barrier layer.

FIG. 1