

ABSTRACT

A storage device includes a plurality of non-volatile memory devices and a storage controller configured to generate program commands and first addresses corresponding to a plurality of word lines included in a first super block based on a sequential write request from a host, determine whether to allocate at least one sub-memory block included in a second super block based on data of a word line table which indicate word lines having a relatively small program time and the first addresses, and generate at least one erase command and at least one second address corresponding to the allocated at least one sub-memory block for performing an erase operation.

FIG. 8