ABSTRACT

A FLASH WITH FINGER-LIKE FLOATING GATE

A finger-like floating gate structure in flash memory cells is disclosed. Raised isolation regions within a semiconductor region separate parallel active regions. A gate dielectric layer is disposed over the active regions. Finger-like floating gates are equally spaced along the active regions. The finger-like floating gates are comprised of a conductive base section that is disposed over the gate dielectric layer and three conductive finger sections that are in intimate electrical contact with the base section. An interlevel dielectric layer is patterned into equally spaced parallel stripes perpendicular to the active regions and each stripe is disposed over the corresponding composite floating gate for each active region. Word lines, which are composed of a third conductive layer, are parallel lines disposed over the interlevel dielectric layer and serve as control gates.

(Fig. 2a)



G00002



162162