SINGLE DOMAIN MAGNETORESISTIVE SENSOR HAVING PERMANENT MAGNET STABILIZATION

ABSTRACT OF THE DISCLOSURE

A magnetoresistive sensor (10) having permanent magnet stabilization is comprised of a magnetoresistive layer (12), at least one permanent magnet (14a or 14b), and first and second current contacts (16a and 16b). The magnetoresistive layer (12) is comprised of an active sensing region (18) having a first thickness, and at least one under layer region (26a or 26b), with each under layer region (26a or 26b) having a second thickness that is less than the first thickness. Each permanent magnet (14a or 14b) is formed upon an under layer region (26a or 26b) of the magnetoresistive layer (12), and the first and second contacts (16a and 16b) are electrically coupled to the active region (18).

(REFER TO FIG. 7)