MAGNETO-RESISTIVE EFFECT MAGNETIC HEAD

ABSTRACT

A magneto-resistive effect type magnetic head employing a spin bulb film in which the direction of magnetization of a free layer is constant even in the absence of an external magnetic field to assure magnetic stability. The magneto-resistive effect type magnetic head includes a magneto-resistive effect film of a planar substantially rectangular configuration, having its longitudinal direction substantially perpendicular to a magnetic recording medium sliding surface, a first electrode connected to a longitudinal end of the magneto-resistive effect film, a second electrode connected to the other longitudinal end of the magneto-resistive effect film and hard magnetic films arranged on both ends along the width of the magneto-resistive effect film. The magneto-resistive effect film is made up of at least a first ferromagnetic layer, a non-magnetic layer, a second ferromagnetic layer and an anti-ferromagnetic layer, layered together. The hard magnetic films has an electrical resistance larger than that of the magneto-resistive effect film.

Figure 6