MAGNETORESISTANCE EFFECT ELEMENT

ABSTRACT OF THE DISCLOSURE

A magnetoresistance effect element is provided with a laminated film which is composed of a first ferromagnetic conductive layer, a non-magnetic conductive layer superposed on the first ferromagnetic film, and a second ferromagnetic conductive layer superposed on the non-magnetic conductor layer, and which is provided with a pair of electrodes formed on the laminated film, wherein at least one of the first and second magnetic conductive layers comprises at least a first ferromagnetic layer and a second ferromagnetic film, for example, Co alloy films whose directions of axis of easy magnetization are different from each other. Furthermore, this element is a magnetoresistance effect element provided with a spin valve film having a non-magnetic layer disposed between a first magnetic layer composed of a laminated film of such a ferromagnetic film as a Co based magnetic alloy and a soft magnetic layer, and a second magnetic layer, wherein the soft magnetic layer is composed of a soft magnetic material laminated film of a soft magnetic material film of one kind or soft magnetic material films of two or more kinds, and values of their magnetization M_s(T), film thickness d(nm), and anisotropic magnetic field H_k(Oe) satisfy $\Sigma(M_s \times d \times H_k) > 30$(Tnm Oe).

Fig. 1