

ABSTRACT

Magnetic tunnel junction device and writing/reading method for said device

- 5 The inventive device successively comprises a first electrode (12), a magnetic reference layer (1), a tunnel barrier (3), a magnetic storage layer (4) and a second electrode (13). At least one first heat barrier is disposed between the storage layer (4) and the second electrode (13) and made of a material whose thermal conductivity less than $5\text{W/m/ }^{\circ}\text{C}$. A second thermal
- 10 barrier can be constituted by a layer arranged between the first electrode (12) and the reference layer (1). The writing phase of the method involves the circulation of electric current (11) through the tunnel junction of the storage layer (4) towards the reference layer (1) whereas the reading phase involves an electric current circulation in a reverse direction.

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Figure 5