

Title (en)  
BODY EFFECT SENSING METHOD FOR NON-VOLATILE MEMORIES

Title (de)  
KÖRPERWIRKUNGSMESSVERFAHREN FÜR NICHTFLÜCHTIGE SPEICHER

Title (fr)  
TECHNIQUES DE DETECTION DE SUBSTITUTION POUR MEMOIRES REMANENTES

Publication  
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Application  
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Abstract (en)  
[origin: WO2007076451A2] The present invention presents a scheme for sensing memory cells. Selected memory cells are discharged through their channels to ground and then have a voltage level placed on the traditional source and another voltage level placed on the control gate, and allowing the cell bit line to charge up. The bit line of the memory cell will then charge up until the bit line voltage becomes sufficiently high to shut off any further cell conduction. The rise of the bit line voltage will occur at a rate and to a level dependent upon the data state of the cell, and the cell will then shut off when the bit line reaches a high enough level such that the body effect affected memory cell threshold is reached, at which point the current essentially shuts off. A particular embodiment performs multiple such sensing sub-operations, each with a different control gate voltage, but with multiple states being sensed in each operation by charging the previously discharged cells up through their source.

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