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(54) **SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE SAME**

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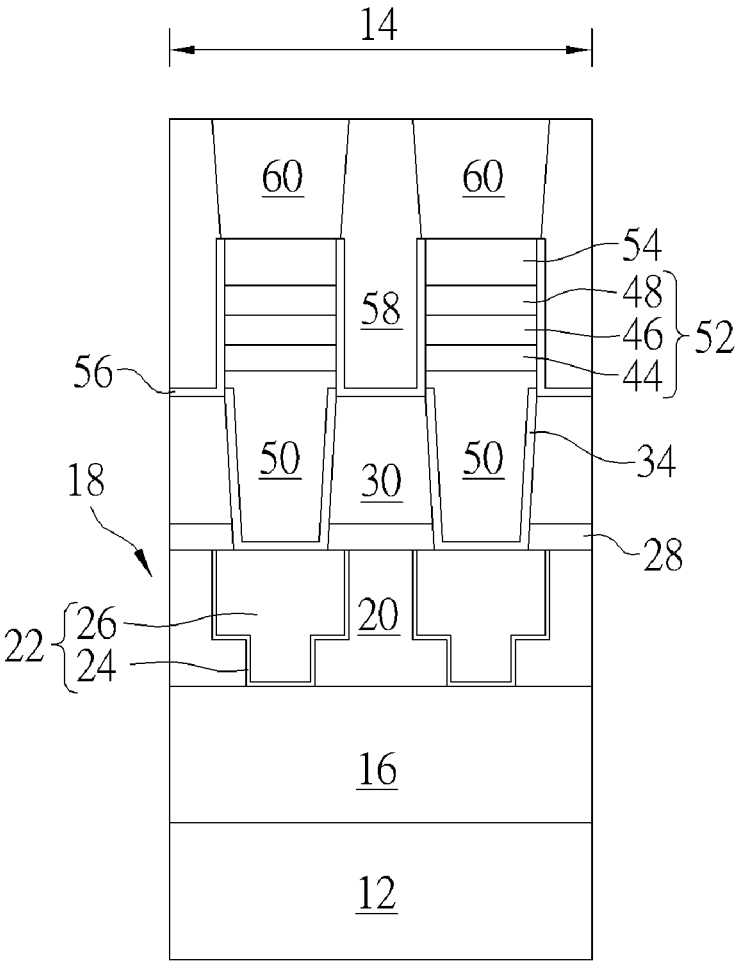
(57) **ABSTRACT**

A method for fabricating a semiconductor device includes the steps of: forming a first inter-metal dielectric (IMD) layer on a substrate; forming a contact hole in the first IMD layer; forming a bottom electrode layer in the contact hole; forming a magnetic tunneling junction (MTJ) stack on the bottom electrode layer; and removing the MTJ stack and the bottom electrode layer to form a

MTJ on a bottom electrode. Preferably, the bottom electrode protrudes above a top surface of the first IMD layer.