METHOD OF FORMING A NOVEL TOP-METAL FUSE STRUCTURE

ABSTRACT

A method of forming a top-metal fuse structure comprising the following steps. A structure having an intermetal dielectric layer is formed thereover. the structure including a fuse region and an RDL/bump/bonding pad region. A composite metal layer is formed over the intermetal dielectric layer. The composite metal layer including a second metal layer sandwiched between upper and lower first metal layers. The upper first metal layer is patterned to form an upper metal layer portion within the RDL/bump/bonding pad region. The second metal layer and the lower first metal layer are patterned: (1) within the RDL/bump/bonding pad region to form an RDL/bump/bonding pad; the RDL/bump/bonding pad having a patterned second metal layer portion/lower first metal portion with a width greater than that of the upper metal layer portion and forming a step profile; and (2) within the fuse region to form the top-metal fuse structure. The RDL/bump/bonding pad structure includes a step profile.

Figure 4.



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