ABSTRACT

AIR GAP FORMATION FOR HIGH SPEED IC PROCESSING

The process of the present invention can be used for conventional processing or for the Damascene process. The key concept of the present invention is a functional "filler" material which can later be removed (decomposed) to leave an air gap between the conducting lines. The filler material can be deposited as a step during conventional metal etch processing or it can be deposited as a first step of the processing of a semiconductor wafer. Leakage currents can be reduced as part of the present invention by applying passivation layers.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)