

A METHOD TO IMPROVE TRANSISTOR PERFORMANCE MATCHING FOR PLASMA-ASSISTED SOURCE/DRAIN FORMATION

ABSTRACT

Methods to dope transistors with equal or similar dopant concentration are described. In a first alternative, a slow dose per pulse ramp during plasma-assisted doping is proposed. This method results in a thinner surface deposited layer resulting in equal dopant concentration throughout the area. In a second alternative, transistors are placed away from the mask edge in order to achieve equal dopant concentration.

Figure 2