ABSTRACT

ESD PROTECTION DEVICE FOR SOI TECHNOLOGY

A method for forming an electrostatic discharge device using silicon-on-insulator technology is described. A silicon-on-insulator substrate is provided comprising a semiconductor substrate underlying an oxide layer underlying a silicon layer. The silicon layer and oxide layer are patterned to form a gate electrode wherein the semiconductor substrate is exposed. Ions are implanted into the exposed semiconductor substrate to form source and drain regions adjacent to the gate electrode. Spacers are formed on sidewalls of the gate electrode. An interlevel dielectric layer is deposited overlying the gate electrode. Openings are formed through the interlevel dielectric layer to the source and drain regions and filled with a conducting layer. The conducting layer is patterned to form conducting lines to complete formation of an electrostatic discharge device using SOI technology in the fabrication of integrated circuits.

FIGURE 1 IS SUGGESTED FOR PUBLICATION