ABSTRACT

NOVEL ESD PROTECTION DEVICE FOR STI DEEP SUBMICRON TECHNOLOGY

A new method is provided for the creation of an ESD protection device for deep submicron semiconductor technology. An STI trench is created and filled with oxide. The surface of the STI region is polished after which a gate structure is created over the STI region. A high energy ESD implant is performed that is self-aligned with the created gate structure after which the EDS device structure is completed by implanting the source and drain regions of the EDS device.

(FIGURE 2 IS SUGGESTED FOR PUBLICATION)