

ABSTRACT

SEMICONDUCTOR DEVICE

A semiconductor device is disclosed that is formed on a semiconductor substrate and in which there is a structure for protecting circuit elements from excessive static electricity from the outside, such as the surge input and static electricity generated during the production process.

The protection structure includes formation of transistors and diodes so that contact is made between the high concentration diffusion layer that forms the source and drain and the low concentration diffusion layer, that has a conductivity which is opposite of the high concentration diffusion layer that forms the LDD structure transistor offset.

By making contact between a high concentration diffusion layer and a low concentration diffusion layer, it is possible to form a circuit element that reduces the junction voltage resistance. In addition, by using the offset of the CMOS structure, there is no increase in the number of production process steps.

Figure 1