Abstract

METHOD FOR FORMING AN L-SHAPED SPACER USING A DISPOSABLE POLYSILICON SPACER

A method for forming an L-shaped spacer using disposable polysilicon top spacers. A semiconductor structure is provided having a gate structure thereon. A liner oxide layer is formed on the gate structure. A dielectric spacer layer is formed on the liner oxide layer. A disposable polysilicon top spacer layer is formed on the dielectric spacer layer. The disposable polysilicon top spacer layer is anisotropically etched to form disposable polysilicon top spacers. The dielectric spacer layer is etched to form L-shaped dielectric spacers, using the disposable polysilicon top spacers as an etch mask. The dosposable polysilicon top spacers are removed leaving an L-shaped dielectric spacer. In one embodiment, lightly doped source and drain regions are formed prior to forming the liner oxide layer and the L-shaped spacers.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)