

REDUCTION OF REVERSE SHORT CHANNEL EFFECTS

ABSTRACT

A FET with reduced reverse short channel effects is described, as well as a method to make said FET. Germanium is implanted throughout a semiconductor substrate at an intensity and dose such that a peak ion concentration is created below the source and drain of the FET. The germanium can be implanted prior to gate (14) and source (18) and drain (20) formation, and reduces the reverse short channel effect normally seen in FETs. The short channel effect normally occurring in FETs is not negatively impacted by the germanium implant.

Fig.7