ABSTRACT OF THE DISCLOSURE

SEMICONDUCTOR DEVICE AND PRODUCTION THEREOF

A semiconductor device having a SGI structure produced by selecting D, T and R values for satisfying the formula: $D < 0.4^{(-100R + 7) - 1} (-230\ T + 14.5)$, wherein D is a width of an element formation region, T is a thermal oxidation amount of a groove in terms of microns, and R is a curvature radius at an end bottom portion of the groove, has excellent properties such as reduced in stress generated at bottom portions of grooves in a silicon substrate and not generating abnormal junction leakage current.

(Figure 3G)