

THIS SHEET HAS BEEN
REPLACED

IR-1177

GRADED CONCENTRATION EPITAXIAL SUBSTRATE FOR
SEMICONDUCTOR DEVICE HAVING RESURF DIFFUSION

ABSTRACT OF THE DISCLOSURE

The epitaxial substrate of a semiconductor chip device has a resurf diffusion in at least one of its isolated wells in the device chip surface. The wells are separated by junction diffusions. The thickness of the epitaxial layer is reduced by placing an increased percentage of its total charge for a given breakdown voltage (punch-through voltage) in the lower portion of the layer.

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