A B S T R A C T

A high density substrate plate DRAM cell memory device and process are described in which a buried plate region (32) is formed adjacent to deep trench (22) capacitors such that the substrate region of DRAM transfer FETs can be electrically isolated from other FETs on a semiconductor substrate (10). The buried region (32) is partially formed by lateral outdiffusion from the sidewalls of the deep trenches (22) and partially formed by an N-well surface diffusion (34) which entirely surrounds the DRAM array region.

This Sheet Has Been Replaced

