

IMPROVED CHARGE PUMP CIRCUIT FOR HIGH SIDE SWITCH

ABSTRACT OF THE DISCLOSURE

A high side monolithic switching circuit integrated into a silicon chip is described in which the charge pump is connected to the ground terminal by a constant current circuit and floats relative to the ground terminal to reduce noise generation. The charge pump is connected to a V_{CC} terminal by an auxiliary power MOSFET having its gate connected to the charge pump output circuit. The conventional charge pump diodes are implemented as MOSFET devices which can be easily integrated into the common monolithic chip. A clamping circuit across the charge pump permits the use of a low voltage, small area capacitor for a high voltage device.

This Sheet Has Been Replaced

