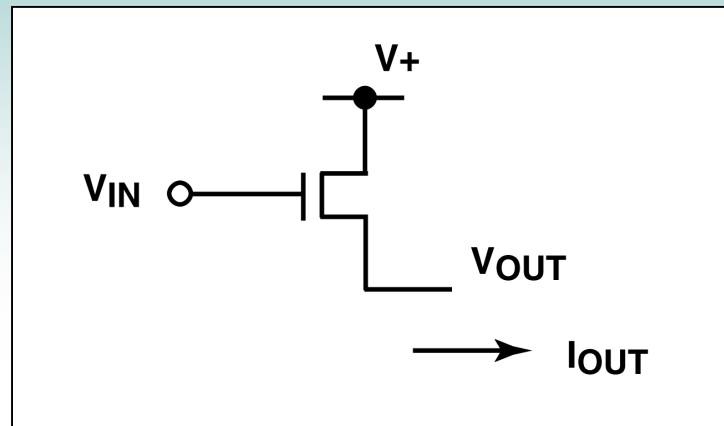




High Input Impedance Source Follower



Description

A simple voltage source follower can be implemented with an EPAD MOSFET connected as a source follower where the output currents are supplied by drain to source current. This circuit is analogous to the classic emitter follower using a bipolar transistor. In this case the input (source) voltage and its source impedance are completely isolated from the output voltage and output currents due to the extremely high input impedance of the MOSFET. The impedance transformed V_{OUT} and I_{OUT} are dependent only on the input voltage and the output impedance of the EPAD MOSFET. An output resistor connected to ground or other reference voltages will produce a buffered output voltage that follows the input voltage very closely.

Recommended Components

Enhancement Mode EPAD MOSFET: $\frac{1}{4}$ ALD110800; or $\frac{1}{4}$ ALD110802; or $\frac{1}{4}$ ALD110804.
Depletion Mode EPAD MOSFET: $\frac{1}{4}$ ALD114804; or $\frac{1}{4}$ ALD1148013; or $\frac{1}{4}$ ALD114835

Other Related Circuit Ideas

Schematic no. vf_27001.0 Rail-to-Rail Voltage Follower/Buffer

Schematic no. vf_27002.0 Micropower Buffered Rail-to-Rail Adjustable Voltage Source