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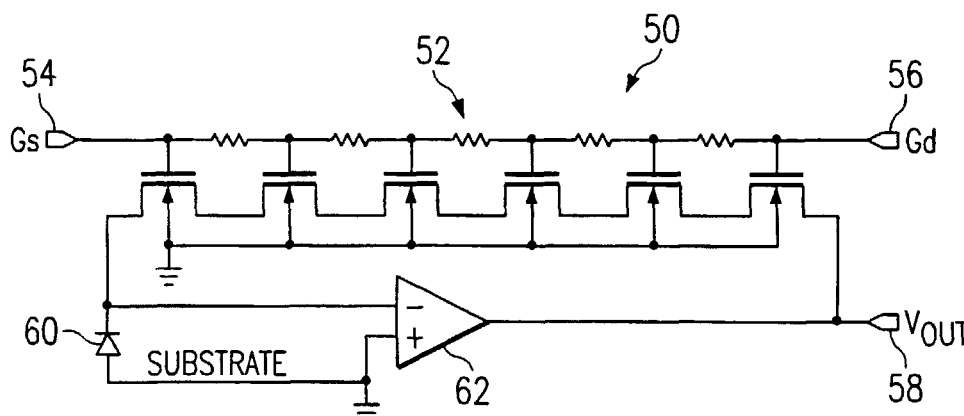
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(54) Title: HIGH SHEET MOS RESISTOR METHOD AND APPARATUS



(57) Abstract: A method and apparatus is disclosed for providing highly linear resistance with high sheet values, and for implementing resistors in a conventional CMOS process when either drain or source must operate near the rail of a circuit. Accordingly, a five terminal distributed MOS resistor device (52 of the figure) includes a drain terminal (node coupled to Vout), a source terminal (node coupled to diode 60), and a channel region disposed between the drain terminal and the source terminal. A bulk terminal (coupled to ground) is adjacent the channel region. A first gate terminal (Gs) is adjacent to the source terminal and a second gate terminal (Gd) is adjacent to the drain terminal. Lastly, a gate region (the resistors) of the resistive material is disposed between the first gate terminal and the second gate terminal, where upon application of a voltage to the first gate terminal and the second gate terminal, a voltage drop across the gate region is equally distributed along a length of an electrical channel in the channel region.