

AN IMPACT DETECTING CIRCUIT

Abstract of the Invention

5 The circuit includes a current mirror (42) which detects a difference
between the drain-source current of the movable gate metal oxide field effect
transistor (MOSFET) (1) and a FET (45), caused by various factors including
a change in temperature, and provides an error voltage which is amplified
by an amplifier (61). The amplified error voltage is fed back to the movable
10 gate (4) and plate (30) via a feedback circuit (58), which applies a voltage
differential to the gate (4) and plate (30) to move the gate (4), such that the
drain-source currents become equal. In this way slow varying changes are
neutralised, and high speed variations of the gate (4) caused by the force of
an impact on the MOSFET (1), result in an alternating signal at the output
15 whose magnitude (63) indicates the force of the impact.

(FIG. 2 accompanies this abstract)