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(54) **MOSFET CIRCUIT, FOR EXAMPLE FOR USE IN A TAPPED LINEAR DRIVER, AND SURGE PROTECTION METHOD**

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(57) **ABSTRACT**

A MOSFET circuit clamps a MOSFET gate voltage (either directly or via a gate control circuit) when the source voltage exceeds a threshold level, for example in response to a voltage surge event between the source and drain. In particular, the gate is held at a voltage relative to the source, to turn off the first MOSFET during such a surge event, but not during normal operation. This provides automatic protection against unwanted increases in the input voltage, especially when the MOSFET was in its on state during the switching. A threshold circuit is connected between a gate (or gate control node) and a reference voltage. When the voltage at the source exceeds a voltage threshold level, it conduct a unidirectional circuit component (D**18**) between the source and gate (or gate control node), and the threshold circuit.