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(54) HIGH SIDE CURRENT DETECTION CIRCUIT, OVERCURRENT PROTECTION CIRCUIT, CALIBRATION METHOD AND **ELECTRONIC DEVICES**

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(57)ABSTRACT

A calibration method includes obtaining an offset error of the overcurrent protection circuit by changing a current limiting state of the overcurrent protection circuit, adjusting an offset compensation circuit to calibrate the offset error of the overcurrent protection circuit and adjusting a gain calibration circuit based on the current limiting state of the overcurrent protection circuit to calibrate a gain error of the overcurrent protection circuit, wherein the overcurrent protection circuit comprises a first transistor, a second transistor, a third transistor, a first operational amplifier, a gain calibration circuit, an offset compensation circuit, and a driving circuit, and wherein the driving circuit is configured to receive a signal generated by the gain calibration circuit and generate a gate drive signal applied the first transistor and the third transistor.

