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(54) **OPERATIONAL AMPLIFIER CIRCUIT AND OPERATIONAL AMPLIFIER COMPENSATION CIRCUIT FOR AMPLIFYING INPUT SIGNAL AT HIGH SLEW RATE**

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(57) **ABSTRACT**

An operational amplifier compensation circuit includes; a first transistor activated/deactivated in response to a signal level difference between an input signal applied to an operational amplifier and an output signal provided by the operational amplifier, a first signal amplifying circuit including a second transistor and a first load, wherein the first signal amplifying circuit is configured to generate a first gate voltage amplified in response to the voltage level difference between the input signal and the output signal in relation to an internal resistance of the second transistor and a resistance of the first load when the first transistor is activated, and a third transistor configured to generate a first compensation current in response to the amplified first gate voltage and provide the first compensation current to the operational amplifier.