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(54) **POWER TRANSISTOR ADAPTIVE CLAMP CIRCUIT**

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(57) **ABSTRACT**

An adaptive clamp circuit includes a clamp circuit and a clamp control circuit. The clamp circuit includes a first transistor, a second transistor, and a variable resistor. The first transistor includes a first current terminal, a second current terminal, and a control terminal. The first current terminal is coupled to a switching terminal. The second current terminal is coupled to a ground terminal. The second transistor includes a first current terminal, a second current terminal, and a control terminal. The first current terminal of the second transistor is coupled to the control terminal of the first transistor. The second current terminal of the second transistor is coupled to the switching terminal. The variable resistor is coupled between the control terminal of the second transistor and the ground terminal. The clamp control circuit is coupled between the switching terminal and the variable resistor.