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### (54) METHODS AND DEVICES TO IMPROVE SWITCHING TIME BY BYPASSING GATE RESISTOR

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#### (57)**ABSTRACT**

Implementing a series gate resistor in a switching circuit results in several performance improvements. Few examples are better insertion loss, lower breakdown voltage requirements and a lower frequency corner. These benefits come at the expense of a slower switching time. Methods and devices offering solutions to this problem are described. Using a concept of bypassing the series gate resistor during transition time, a fast switching time can be achieved while the above-mentioned performance improvements are main-

