

**Title:** New Technique for Uniform Voltage Sharing in Series Stacked Semiconductors

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**Abstract:** This paper describes the operation of a solid-state series stacked topology used as a serial and parallel switch in pulsed power applications. The proposed circuit, developed from the Marx generator concept, balances the voltage stress on each series stacked semiconductor, distributing the total voltage evenly. Experimental results from a 10 kV laboratory series stacked switch, using 1200 V semiconductors in a ten stages solid-state series stacked circuit, are reported and discussed, considering resistive, capacitive and inductive type loads for high and low duty factor voltage pulse operation.

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