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Ball

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(54) **SAWTOOTH WAVEFORM GENERATOR**

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See application file for complete search history.

(57) **ABSTRACT**

A sawtooth waveform generator includes an operational amplifier that generates a ramp signal. The ramp signal charges a capacitor connected between the output of the operational amplifier and the inverting input of the operational amplifier. The inverting input is maintained at a substantially constant voltage, which provides a substantially constant charging current through a timing resistor. The connections to the capacitor are switched when the ramp voltage reaches a predetermined level. A control circuit switches the connections to the capacitor in response to a voltage on one terminal of the capacitor to assure that the connections to the capacitor are switched to a configuration to cause the direction of current flow through the capacitor to be reversed as a result of the switching.

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4 Claims, 2 Drawing Sheets

