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**SAWADA et al.**(10) **Pub. No.: US 2024/0178743 A1**(43) **Pub. Date: May 30, 2024**(54) **LATCH CIRCUIT AND POWER SUPPLY  
CONTROL DEVICE****Publication Classification**(51) **Int. Cl.****H02M 1/08** (2006.01)**H02M 3/156** (2006.01)(52) **U.S. Cl.****CPC** ..... **H02M 1/08** (2013.01); **H02M 3/156**  
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**ABSTRACT**

In a first switch of a latch circuit, when the voltage between an emitter (input end) and a base (control end) has increased to a threshold voltage or more, the first switch is switched from off to on. The current that flows through a first resistor and a second resistor in that order is input to a collector (input end) of a second switch and a comparator switch. The second switch is switched on when the first switch is switched on. When the second switch or the comparator switch (third switch) is on, the voltage across the first resistor is the threshold voltage or more. A voltage is input to the emitter of the first switch from a microcomputer. A voltage is output from the collector of the second switch to a driving circuit.

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