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Fujimoto(10) **Pub. No.: US 2022/0416772 A1**(43) **Pub. Date: Dec. 29, 2022**(54) **COMPARATOR CIRCUIT AND AD
CONVERTER**(52) **U.S. Cl.**
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(2013.01)(71) Applicant: **Rohm Co., Ltd.**, Kyoto (JP)(72) Inventor: **Yoshiaki Fujimoto**, Kyoto (JP)(57) **ABSTRACT**(21) Appl. No.: **17/778,116**(22) PCT Filed: **Nov. 10, 2020**(86) PCT No.: **PCT/JP2020/041842**

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A comparator circuit includes a zeroth capacitor having a first terminal fed with an input voltage, a zeroth inverter having an input terminal connected to a second terminal of the zeroth capacitor at a zeroth node, a first capacitor having a first terminal connected to the output terminal of the zeroth inverter at a first node, a first inverter having an input terminal connected to a second terminal of the first capacitor at a second node, a second inverter having an input terminal connected to the output terminal of the first inverter at a third node, a zeroth switch switching conduction between the zeroth and first nodes, a first switch switching conduction between the second and third nodes, a second switch switching conduction between the first and third nodes, and a third switch switching conduction between the third node and the output terminal of the second inverter.

