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TAKAI et al.(10) **Pub. No.: US 2022/0416787 A1**(43) **Pub. Date: Dec. 29, 2022**(54) **SEMICONDUCTOR RELAY DEVICE****Publication Classification**(71) Applicants: **KABUSHIKI KAISHA TOSHIBA**,
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A semiconductor relay device includes a conversion circuit configured to receive an input signal from outside and pass a first current to a first node based on the input signal. A zener diode has an anode coupled to a second node and a cathode coupled to the first node. A resistor is coupled between the second node and a third node. A number n of diodes are serially coupled. A thyristor has an anode coupled to the first node, a cathode coupled to the second node, and a control terminal coupled to the third node. A transistor has a gate coupled to the first node. An anode of a diode at a first end of the n diodes is coupled to the first node, and a cathode of a diode at a second end of the n diodes is coupled to a third node.

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