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ISHIMATSU et al.(10) **Pub. No.: US 2022/0360179 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **POWER CONVERSION DEVICE****H02M 7/00** (2006.01)**H02M 7/537** (2006.01)(71) Applicant: **ROHM CO., LTD.**, Kyoto-shi (JP)(52) **U.S. Cl.****CPC** **H02M 3/33507** (2013.01); **H02M 1/327** (2021.05); **H02M 1/081** (2013.01); **H02M 7/003** (2013.01); **H02M 7/537** (2013.01)(21) Appl. No.: **17/869,536**(22) Filed: **Jul. 20, 2022****Related U.S. Application Data**

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The power converter A1 includes a semiconductor device B1, and a substrate H on which the semiconductor device B1 is mounted, where the semiconductor device B1 includes a control chip constituting a primary control circuit, a semiconductor chip constituting a secondary power circuit, and a transmission circuit for electrically insulating the primary control circuit and the secondary power circuit and for signal transmission between the primary control circuit and the secondary power circuit. The substrate H has a conductive portion K. The power converter A1 includes a connecting terminal T1 disposed on the substrate H and electrically connected to the conductive portion K. The power converter A1 includes a conductive path D1 that is at least partially formed by the conductive portion K of the substrate H, and that electrically connects the primary control circuit and the connecting terminal T1. Such a configuration contributes to downsizing the power converter A1.

