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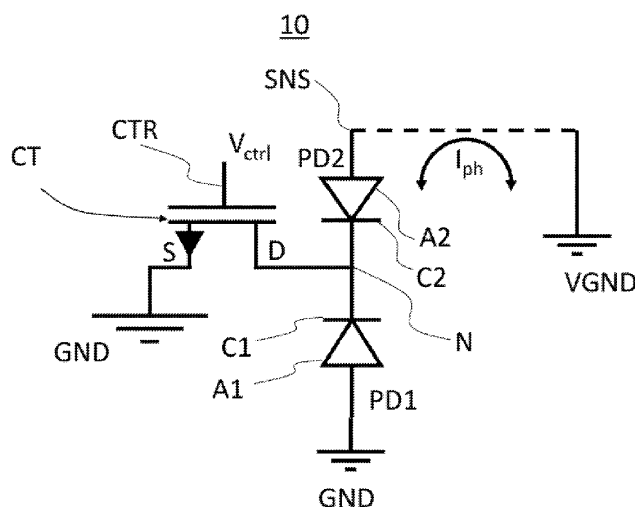


FIG. 1

(57) Abstract: An electromagnetic radiation sensor device (10) is described, comprising: a first photodiode (PD1) comprising a first semiconductor having a first forbidden band and having a first terminal (A1) connected to ground (GND) and a second terminal (C1); a second photodiode (PD2) comprising a second semiconductor having a second forbidden band and having a third terminal (A2) connected to a readout terminal (SNS) and a fourth terminal (C2) in direct contact with said second terminal (C1); a control device (CT) comprising: a control terminal (CTR) to receive a control voltage (VCTR), a terminal connected to ground (GND) and a control terminal (D) connected to the second terminal (C1). In which the sensor device (10) such to assume the following operating conditions: a first condition in which the first photodiode (PD1) assumes a photovoltaic configuration to generate a first photo-current (Iph) and the second photodiode (PD2) is inhibited from generating a photo-current; a second condition in which the control device (CT) short-

[Continued on next page]

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circuits the first photodiode (PD1) to ground and the second photodiode (PD2) assumes a photovoltaic configuration to generate a second photo-current (I_{ph}) which is such that it reaches the readout terminal (SNS).