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#### (54) DATA TRANSMISSION SYSTEM

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#### (57)ABSTRACT

A current-controlled semiconductor system is provided, including a signal and a ground line, and a semiconductor controlled rectifier (SCR) device including a first SCR layer doped with a first type of charge carriers; a second SCR layer doped with a second type different from the first type; a third SCR layer doped with the first type; a fourth SCR layer doped with the second type; an input terminal connected with the first SCR layer and the signal line and an output terminal connected with the fourth SCR layer and ground line; at least a first SCR junction element connected with the second SCR layer and the signal line, and/or a second SCR junction element connected with the third SCR layer and the ground line, the system includes at least one current trigger device connecting the signal line with the third SCR layer or the ground line with second SCR layer.

