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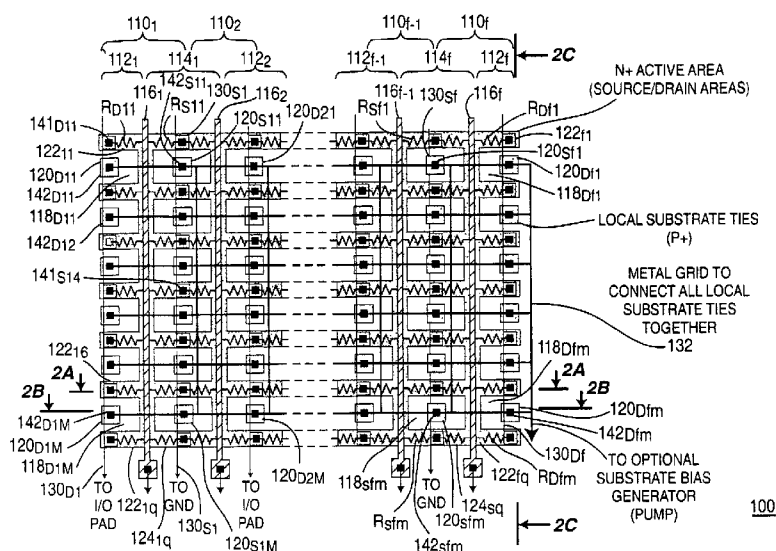
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(54) Title: ELECTROSTATIC DISCHARGE (ESD) PROTECTION DEVICE WITH SIMULTANEOUS AND DISTRIBUTED SELF-BIASING FOR MULTI-FINGER TURN-ON



(57) Abstract: An ESD protection circuit (150) including a simultaneously biased multi-finger turn-on MOS device for a semiconductor integrated circuit (IC) having protected circuitry. The ESD protection circuit includes a multi-fingered NMOS transistor (100), where each finger has a drain and source for respectively coupling between an I/O pad (20) of the IC and ground (15), as well as a gate for biasing the finger. An ESD detector (310) includes a PMOS transistor (311) having a source for coupling to the I/O pad of the IC, and a gate coupled to a supply voltage (90) of the IC. A parasitic capacitance (900) is formed between the supply line of the IC and ground. A transfer circuit (320) having a first diode (321) is coupled between the drain of the PMOS transistor and the gate of each finger of the NMOS transistor.

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