

A high voltage pulse generator comprises storage capacitors having charged plates, at least two diode charge branches, switches, a charge current-limiting element and a voltage power source. Each diode charge branch comprises at least two diode elements in series connected through a charge capacitor; the diode charge branches are parallel connected. Each diode branch is connected to the next diode charge branch through the switch installed between the opposite charged capacitor plates located in the adjacent diode charge branches. The current-limiting element is installed between one of the voltage power source poles and first diode charge branch.