A PULSE VOLTAGE GENERATION CIRCUIT AND SEMICONDUCTOR PROCESS EQUIPMENT

ABSTRACT

The present application provides a pulse voltage generation circuit and a semiconductor process equipment, which are applied to the technical field of semiconductor manufacturing. The circuit includes an energy storage circuit and a switch unit. A connection point between the energy storage circuit and each first controllable switch in the switch unit is configured to output an operation pulse voltage. The conduction state of each first controllable switch in the switch unit is controlled by a controller. The first controllable switches are connected in parallel. The conduction time periods of the first controllable switches do not overlap with each other, and the conduction time periods of two first controllable switches adjacent in a conduction sequence are separated by a preset duration. The first controllable switches are sequentially turned on in the foregoing manner, such that the operation pulse voltage can be output. The pulse frequency of the operation pulse voltage is the sum of the conduction state switching frequencies of the first controllable switches. By providing a plurality of first controllable switches, the pulse frequency of the operation pulse voltage can be effectively increased, thereby mitigating the problem of an unsatisfactory unimodal IEDF control effect and satisfying actual process requirements.

FIG. 2