

ABSTRACT

The present application discloses a device for detecting a loop current of an electrostatic chuck power supply and semiconductor process equipment. The device includes: a sampling resistor, connected in series to an output terminal of the electrostatic chuck power supply; and an operational amplifier, wherein a positive input terminal of the operational amplifier is connected to an input terminal of the sampling resistor, a negative input terminal of the operational amplifier is connected to an output terminal of the sampling resistor, a reference potential terminal of the operational amplifier is configured to input a first reference voltage, an absolute voltage difference between the first reference voltage and an output voltage at an output terminal of the electrostatic chuck power supply is less than a withstand voltage difference of the operational amplifier, a power supplying terminal of the operational amplifier is configured to input a first power supplying voltage, the first power supplying voltage is higher than the first reference voltage by a preset first voltage value, and an output terminal of the operational amplifier is configured to output a voltage signal proportional to the loop current. An ordinary non-high-voltage-isolated operational amplifier may be used in the present application, thereby reducing the cost and improving the accuracy of current detection.