WHAT IS CLAIMED IS:

1. A charge control method, applied in an electronic device, wherein the electronic device comprises a charging interface, a charging circuit and a battery coupled in series, the charging circuit comprises a first detecting circuit and a second detecting circuit, and the method comprises:

when a charging device is coupled with the charging interface, determining, by a charge control device, a charging mode supported by the charging device as a high voltage charging mode or a low voltage charging mode, in which a charging voltage of the high voltage charging mode is greater than a charging voltage of the low voltage charging mode; and

controlling the charging circuit by the charge control device according to the charging mode supported by the charging device, such that the charging circuit charges the battery in the charging mode supported by the charging device;

wherein the charging circuit comprises a first switch element and a second switch element;

controlling the charging circuit by the charge control device according to the charging mode supported by the charging device, such that the charging circuit charges the battery in the charging mode supported by the charging device, comprises:

if the charging mode supported by the charging device is the low voltage charging mode, controlling the first switch element to switch on, and controlling the second switch element to switch off; and

if the charging mode supported by the charging device is the high voltage charging mode, determining via the first detecting circuit a charging parameter input by the charging interface and determining via the second detecting circuit a charging parameter of the battery, controlling the first switch element to switch on and the second switch element to switch off within a first time period, and controlling the first switch element to switch off and the second switch element to switch on within a second time period, wherein the second time period is immediately after the first time period, and switch-on duration of the first switch element and switch-on duration of the second

switch element are controlled according to voltage and current input by the charging interface obtained by detecting a voltage across the first detecting circuit and voltage and current of the battery obtained by detecting a voltage across the second detecting circuit.

2. The method according to claim 1, wherein a first end of the charge control device is coupled with a grid of the first switch element, a second end of the charge control device is coupled with a grid of the second switch element;

a source of the first switch element is coupled with a drain of the second switch element;

a drain of the first switch element is coupled with a power line of the charging interface, a source of the second switch element is grounded;

the charging circuit further comprises an inductance element and a capacitance element, in which a first end of the inductance element is coupled with the source of the first switch element and the drain of the second switch element respectively;

a second end of the inductance element is coupled with a first end of the capacitance element and a first end of the battery respectively;

a second end of the capacitance element is coupled with a second end of the battery and grounded.

3. The method according to any one of claims 1-2, wherein a data line of the charging interface is configured to perform communication between the electronic device and the charging device;

determining the charging mode supported by the charging device as the high voltage charging mode or the low voltage charging mode comprises:

receiving, via the data line of the charging interface, indication information sent by the charging device, in which the indication information is configured to indicate the charging mode supported by the charging device; and

determining the charging mode supported by the charging device as the high voltage charging mode or the low voltage charging mode according to the indication information.

4. The method according to claims 1-3, wherein a data line of the charging interface is configured to perform communication between the electronic device and the charging device;

determining the charging mode supported by the charging device as the high voltage charging mode or the low voltage charging mode comprises:

sending second indication information to the charging device via the data line of the charging interface, wherein the second indication information is configured to query the charging mode supported by the charging device;

receiving indication information via the data line of the charging interface, wherein the indication information is sent by the charging device according to the second indication information, in which the indication information is configured to indicate the charging mode supported by the charging device; and

determining the charging mode supported by the charging device as the high voltage charging mode or the low voltage charging mode according to the indication information.

5. The method according to claim 2, wherein the drain of the first switch element is coupled with the power line of the charging interface via the first detecting circuit, two ends of the first detecting circuit are coupled with a third end and a fourth end of the charge control device respectively; two ends of the second detecting circuit are coupled with a fifth end and a sixth end of the charge control device respectively.

6. The method according to claim 5, wherein controlling the charging circuit according to the charging parameter input by the power line of the charging interface and the charging parameter of the battery, such that the charging circuit charges the battery in the charging mode supported by the charging device comprises:

determining whether charging is abnormal or whether the battery is fully charged according to the charging parameter input by the power line of the charging interface and the charging parameter of the battery; and

if it is determined that the charging is abnormal or the battery is fully charged, controlling the first switch element and the second switch element to switch off, such that the charging device stops charging the battery.

7. The method according to any one of claims 1-2, wherein the first switch element is a first MOSFET transistor, and the second switch element is a second MOSFET transistor.

8. A charge control device, applied in an electronic device, wherein the electronic device comprises a charging interface, a charging circuit and a battery coupled in series, the charging circuit comprises a first detecting circuit and a second detecting circuit, and the device comprises:

a determining unit, configured to determine a charging mode supported by a charging device as a high voltage charging mode or a low voltage charging mode when the charging device is coupled with the charging interface, in which a charging voltage of the high voltage charging mode is greater than a charging voltage of the low voltage charging mode; and

a control unit, configured to control the charging circuit according to the charging mode supported by the charging device and determined by the determining unit, such that the charging circuit charges the battery in the charging mode supported by the charging device;

wherein the charging circuit comprises a first switch element and a second switch element;

the control unit is configured to:

control the first switch element to switch on and control the second switch element to switch off, if the determining unit determines that the charging mode supported by the charging device is the low voltage charging mode; determining via the

first detecting circuit a charging parameter input by the charging interface and determining via the second detecting circuit a charging parameter of the battery, control the first switch element to switch on and the second switch element to switch off within a first time period, and control the first switch element to switch off and the second switch element to switch on within a second time period, if the determining unit determines that the charging mode supported by the charging device is the high voltage charging mode, wherein the second time period is immediately after the first time period, and switch-on duration of the first switch element and switch-on duration of the second switch element are controlled according to voltage and current input by the charging interface obtained by detecting a voltage across the first detecting circuit and voltage and current of the battery obtained by detecting a voltage across the second detecting circuit.

9. The device according to claim 8, wherein a first end of the charge control device is coupled with a grid of the first switch element, a second end of the charge control device is coupled with a grid of the second switch element;

a source of the first switch element is coupled with a drain of the second switch element;

a drain of the first switch element is coupled with a power line of the charging interface, a source of the second switch element is grounded;

the charging circuit further comprises an inductance element and a capacitance element, in which a first end of the inductance element is coupled with the source of the first switch element and the drain of the second switch element respectively;

a second end of the inductance element is coupled with a first end of the capacitance element and a first end of the battery respectively;

a second end of the capacitance element is coupled with a second end of the battery and grounded.

10. The device according to any one of claims 8-9, wherein a data line of the charging interface is configured to perform communication between the electronic device and the charging device;

the determining unit comprises:

a receiving sub-unit, configured to receive indication information sent by the charging device via the data line of the charging interface, in which the indication information is configured to indicate the charging mode supported by the charging device; and

a determining sub-unit, configured to determine the charging mode supported by the charging device as the high voltage charging mode or the low voltage charging mode according to the indication information received by the receiving sub-unit.

11. The device according to claim 9, wherein the drain of the first switch element is coupled with the power line of the charging interface via the first detecting circuit, two ends of the first detecting circuit are coupled with a third end and a fourth end of the charge control device respectively; two ends of the second detecting circuit are coupled with a fifth end and a sixth end of the charge control device respectively.

12. The device according to claim 11, wherein the control unit is further configured to:

determine whether charging is abnormal or whether the battery is fully charged according to the charging parameter input by the power line of the charging interface and the charging parameter of the battery; and

if it is determined that the charging is abnormal or the battery is fully charged, control the first switch element and the second switch element to switch off, such that the charging device stops charging the battery.

13. The device according to any one of claims 8-9, wherein the first switch element is a first MOSFET transistor, and the second switch element is a second MOSFET transistor.

14. An electronic device, comprising a charging interface, a charging circuit and a battery coupled in series, and further comprising the device according to any one of claims 8-13.