

- a second control circuit, coupling between the driving transistor and the OLED for controlling whether the OLED current is supplied to the OLED or not.
- 4.** The pixel driving circuit for OLED display apparatus according to claim **1**, wherein the diode comprises:
- a first region, coupled to the channel that is first-type doped; and
 - a second region, coupled to the first region and is second-type doped,
- wherein the first region is an intrinsic region or a lightly-doped region doped with the second type dopants, wherein when the first region is lightly-doped, the second region has higher doping concentration than the first region.
- 5.** The pixel driving circuit for OLED display apparatus according to claim **4**, wherein the first-type doped is N-type doped and the second-type doped is P-type doped.
- 6.** The pixel driving circuit for OLED display apparatus according to claim **4**, wherein the first-type doped is P-type doped and the second-type doped is N-type doped.
- 7.** The pixel driving circuit for OLED display apparatus according to claim **1**, wherein the diode comprises:
- a first region, coupled to the channel that is first-type doped;
 - a second region, coupled to the first region and is second-type doped; and
 - a third region, coupled to the second region and is second-type doped,
- wherein the first region is an intrinsic region or a lightly-doped region doped with the second type dopants, wherein when the first region is lightly-doped, the second region has higher doping concentration than the first region, wherein the third region has higher doping concentration than the second region.
- 8.** The pixel driving circuit for OLED display apparatus according to claim **7**, wherein the first-type doped is N-type doped and the second-type doped is P-type doped.
- 9.** The pixel driving circuit for OLED display apparatus according to claim **7**, wherein the first-type doped is P-type doped and the second-type doped is N-type doped.
- 10.** An organic light emitting display (OLED) apparatus, comprising:
- a data driver, providing a data signal;
 - a scan driver, providing a scan signal; and
- an active area comprising a plurality of OLED pixels, wherein at least one of the OLED pixels comprises:
- an OLED, having a first terminal and a second terminal and the first terminal coupling to a first voltage source;
 - a control circuit, generating a control signal to control an OLED current supplied to the OLED according to the data signal and the scan signal;
 - a driving transistor, having a first drain/source terminal, a second drain/source terminal and a gate terminal, the gate terminal receives the control signal to control a channel between the first and second drain/source terminal for adjusting the OLED current flowing through the channel; and
 - a diode, coupling between the channel and a second voltage source.
- 11.** An electronic device, comprising:
- a signal generator, generating image signals used for displaying an image; and
- an organic light emitting display (OLED) apparatus, comprising:
- a data driver, providing a data signal according to the image signals;
 - a scan driver, providing a scan signal; and
- an active area, comprising a plurality of OLED pixels for displaying the image, wherein at least one of the OLED pixels comprises:
- an OLED, having a first terminal and a second terminal and the first terminal coupling to a first voltage source;
 - a control circuit, generating a control signal to control an OLED current supplied to the OLED according to the data signal and the scan signal;
 - a driving transistor, having a first drain/source terminal, a second drain/source terminal and a gate terminal, the gate terminal receives the control signal to control a channel between the first and second drain/source terminal for adjusting the OLED current flowing through the channel; and
 - a diode, coupling between the channel and a second voltage source.

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