Claims:

1. A lighting module for flashlights, said lighting module comprising:

a light emitting diode;

an amplifying circuit including a thermistor, said thermistor arranged to sense heat from said light emitting diode; and

a microchip having an input and an output, said amplifying circuit coupled to said input, said output coupled to a switching device that regulates energy delivered to the light emitting diode.

2. A lighting module of claim 1, wherein said switching device is part of a boosting circuit.

3. A lighting module of claim 1, wherein said switching device is part of a bucking circuit.

4. A lighting module of claim 1, wherein said switching device is part of an inverting circuit.

5. A lighting module of claim 1, wherein said switching device is a MOSFET.

6. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that 875 mA to 930 mA is delivered to the light emitting diode when said thermistor senses between 20°C to 30°C.

7. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that 880 mA to 910 mA is delivered to the light emitting diode when said thermistor senses between 23°C to 27°C

8. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that substantially 900 mA is delivered to the light emitting diode when said thermistor senses 25°C.

9. A lighting module of claim 1, wherein said microchip is configured to regulate the energy that is delivered to said light emitting diode by adjusting the switching duty cycle of said switching device.

10. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that 330 mA to 450 mA is delivered to the light emitting diode when said thermistor senses between 80°C to 100°C.

11. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that 330 mA to 370 mA is delivered to the light emitting diode when said thermistor senses between 90°C to 100°C.

12. A lighting module of claim 1, wherein said microchip is configured to operate the switching device such that substantially 330 mA is delivered to the light emitting diode when said thermistor senses 100°C.

13. A lighting module of claim 1, wherein said microchip is a microprocessor.

14. A lighting module of claim 1, wherein said microchip is energized by a power source, wherein the energy of said power source depletes over time.

15. A lighting module for a flashlight, said lighting module comprising:

a conductive housing including a first end, a second end, and a cavity;

a light emitting diode disposed on the first end of said conductive housing; and

a circuit board including a module circuit electrically coupled to said light emitting diode, said circuit board at least partially contained within the cavity of said housing, said module circuit having a thermistor to sense heat from said light emitting diode.

16. A lighting module of claim 15, wherein said thermistor is coupled to an amplifying circuit.

17. A lighting module of claim 15, wherein said module circuit is electrically coupled to said conductive housing.

18. A lighting module of claim 15, wherein said thermistor is coupled to an amplifying circuit, wherein the gain of the amplifying circuit adjusts according to the temperature sensed by said thermistor.

19. A lighting module of claim 18 further including a microchip configured to regulate energy flowing to said light emitting diode, wherein output of said amplifying circuit is input to said microchip.

20. A lighting module of claim 19, wherein said microchip is coupled to a boosting circuit.

21. A lighting module of claim 19, wherein said microchip is coupled to a bucking circuit.

22. A lighting module of claim 19, wherein said microchip is coupled to an inverting circuit.

23. An LED module for a flashlight comprising:

a conductive housing;

an LED disposed on one end of said housing; and

a module circuit contained in said housing electrically coupled to said LED, said module circuit configured to regulate energy that is delivered to the LED based on the sensed temperature of the LED.

24. An LED module of claim 23, wherein said module circuit includes a thermistor to sense the temperature of the LED.

25. An LED module of claim 23, wherein said thermistor has a negative resistance coefficient.

26. An LED module of claim 23, wherein said module circuit includes an amplifying circuit, wherein the gain of said amplifying circuit is a function of the sensed temperature of the LED.

27. An LED module of claim 26, wherein said module circuit includes a boosting circuit that is regulated according to the gain of said amplifying circuit.

28. An LED module of claim 26, wherein said module circuit includes a bucking circuit that is regulated according to the gain of said amplifying circuit.

29. An LED module of claim 26, wherein said module circuit includes a inverting circuit that is regulated according to the gain of said amplifying circuit.

30. An LED module comprising:

a conductive housing;

an LED disposed on one end of said housing; and

a module circuit contained in said housing electrically coupled to said LED and to said conductive housing, said module circuit including an energy regulating circuit and a thermal sensitive amplifying circuit.

31. An LED module of claim 30, wherein said thermal sensitive amplifying circuit includes a temperature sensing device.

32. An LED module of claim 31, wherein said temperature sensing device is a thermistor.

33. An LED module of claim 30, wherein the output of said thermal sensitive amplifying circuit is input to said energy regulating circuit.

34. An LED module of claim 33, wherein said energy regulating circuit 20 includes a microchip and a boosting circuit.

35. An LED module of claim 33, wherein said energy regulating circuit includes a microchip and a bucking circuit.

36. An LED module of claim 33, wherein said energy regulating circuit includes a microchip and an inverting circuit.

Claims

1. A lighting module for a flashlight, said lighting module comprising:

a conductive housing including a first end, a second end, and a cavity;

a light emitting diode disposed on the first end of said conductive housing; and

a circuit board including a module circuit electrically coupled to said light emitting diode, said circuit board at least partially contained within the cavity of said housing, said module circuit having a thermistor to sense heat from said light emitting diode.

2. A lighting module of claim 1, wherein said thermistor is coupled to an amplifying circuit.

3. A lighting module of claim 1, wherein said module circuit is electrically coupled to said conductive housing.

4. A lighting module of claim 1, wherein said thermistor is coupled to an amplifying circuit, wherein the gain of the amplifying circuit adjusts according to the temperature sensed by said thermistor.

5. A lighting module of claim 4 further including a microchip configured to regulate energy flowing to said light emitting diode, wherein output of said amplifying circuit is input to said microchip.

6. A lighting module of claim 5, wherein said microchip is coupled to a boosting circuit.

7. A lighting module of claim 5, wherein said microchip is coupled to a bucking circuit.

8. A lighting module of claim 5, wherein said microchip is coupled to an inverting circuit.

9. An LED module for a flashlight comprising:

a conductive housing,

an LED disposed on one end of said housing; and

a module circuit contained in said housing electrically coupled to said LED, said module circuit configured to regulate energy that is delivered to the LED based on the sensed temperature of the LED.

10. An LED module of claim 9, wherein said module circuit includes a thermistor to sense the temperature of the LED.

11. An LED module of claim 9, wherein said thermistor has a negative resistance coefficient.

12. An LED module of claim 9, wherein said module circuit includes an amplifying circuit, wherein the gain of said amplifying circuit is a function of the sensed temperature of the LED.

13. An LED module of claim 12, wherein said module circuit includes a boosting circuit that is regulated according to the gain of said amplifying circuit.

14. An LED module of claim 12, wherein said module circuit includes a bucking circuit that is regulated according to the gain of said amplifying circuit.

15. An LED module of claim 12, wherein said module circuit includes a inverting circuit that is regulated according to the gain of said amplifying circuit.

16. An LED module comprising:

a conductive housing;

an LED disposed on one end of said housing; and

a module circuit contained in said housing electrically coupled to said LED and to said conductive housing, said module circuit including an energy regulating circuit and a thermal sensitive amplifying circuit.

17. An LED module of claim 16, wherein said thermal sensitive amplifying circuit includes a temperature sensing device.

18. An LED module of claim 17, wherein said temperature sensing device is a thermistor.

19. An LED module of claim 16, wherein the output of said thermal sensitive amplifying circuit is input to said energy regulating circuit.

20. An LED module of claim 19, wherein said energy regulating circuit includes a microchip and a boosting circuit.

21. An LED module of claim 19, wherein said energy regulating circuit includes a microchip and a bucking circuit.

22. An LED module of claim 19, wherein said energy regulating circuit includes a microchip and an inverting circuit.