

Diodes, LEDs and Zener Diodes Questions

Question 1

The two connections of a diode are:

- A. Anode and Cathode
- B. Anode and Emitter
- C. Base and Cathode
- D. Gate and Cathode

Question 2

A diode is forward biased when

- A. The symbol points left to right
- B. No current flows through the diode
- C. Current flows through the diode
- D. The potential difference across the diode is zero

Question 3

When a diode conducts the potential difference across the diode is:

- A. 0V
- B. 0.7V
- C. 2.0V
- D. 9V
- E. the supply voltage

Question 4

The opposite of forward biased is:

- A. unbiased
- B. back biased
- C. negative biased
- D. reverse biased

Question 5

In a circuit where a transistor is used to control a motor, the protection diode protects the:

- A. transistor
- B. motor
- C. power supply
- D. input circuit

Question 6

The typical potential difference across an LED when it is illuminated is:

- A. 0V
- B. 0.7V
- C. 2.0V
- D. 9V
- E. the supply voltage

Question 7

The 0V side of an LED is identified by the:

- A. shorter leg
- B. flat side on the case
- C. minus sign on the case
- D. datasheet

Question 8

An LED rated at 2.2V and 15mA is used with a 6V supply.

The most appropriate series resistor is:

- A. 145 Ω
- B. 250 Ω
- C. 400 Ω
- D. 550 Ω

Question 9

A 5.1 V zener diode has a maximum power rating of 600 mW.

If it is used from a 12V supply, the appropriate series resistor would be:

- A. 43 Ω
- B. 47 Ω
- C. 56 Ω
- D. 62 Ω

Question 10

A 2.7 V zener diode and a 120 Ω resistor are connected in series to a 15V supply. If the zener diode required a minimum reverse bias current of 3 mA, what is the maximum current that can be supplied to the load?

- A. 20 mA
- B. 23 mA
- C. 100 mA
- D. 103 mA

Diodes, LEDs and Zener Diodes Answers

1. A
2. C
3. B
4. D
5. A
6. C
7. B
8. B
9. D
10. C

Website

http://www.pfnicholls.com/Electronics_Resources/QuestionIndex.html

© Paul Nicholls

March 2021



Electronics Resources by Paul Nicholls is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).