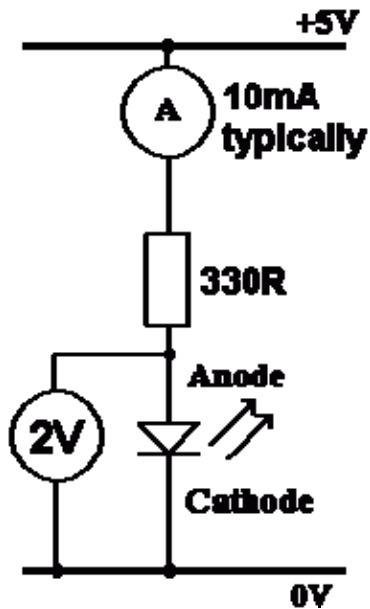


02 Diode Test

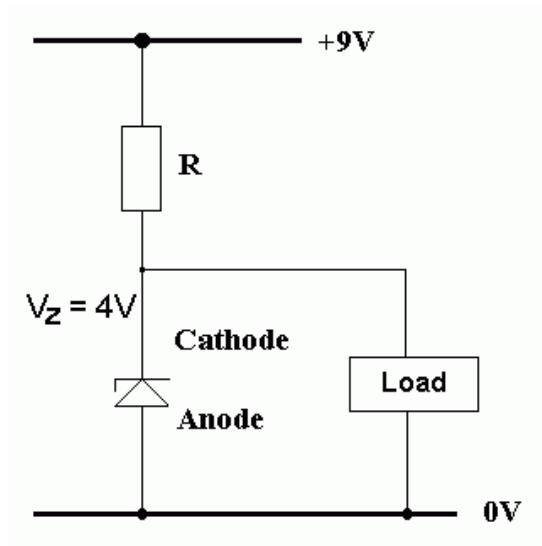
Your Name:

1. The potential difference across a typical forward biased silicon diode is _____.



2. Calculate the current limiting resistor needed for this 10mA LED if the supply voltage was increased to 10V.
3. What E24 resistor would you select for question 2.
4. Sketch the resistor and label the colour stripes for the E24 resistor you selected. Assume the tolerance is 5%.

5. In this diagram the diode is _____ biased.



6. The diode above is a _____ diode.

7. In the diagram above, if the load current decreases, what happens to the resistor current?

8. In the diagram above, if the load current decreases, what happens to the zener diode current?

9. In the diagram above, if the maximum load current is 190mA and the minimum zener current is 10mA, calculate the resistor value.

10. Calculate the power rating of the resistor in the diagram above.