

1 Complete the sentences about MOSFETs. Choose words from this list.

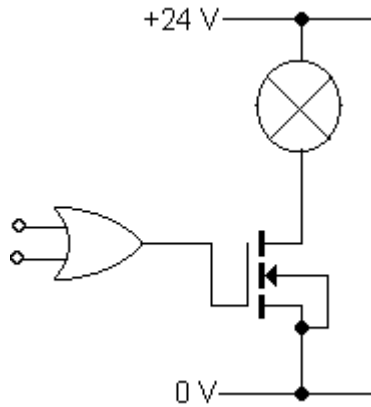
current drain gate high low source threshold voltage

The resistance between the _____ and the _____ is determined by the voltage at the _____ .

The resistance goes from a _____ value to a _____ value as the gate _____ rises above the _____ value.

Charge only flows from the _____ to the _____ when the voltage at the _____ is high enough. There is never any _____ in the gate.

2 Match the start and ends of the sentences for this circuit.



The gate ...
The drain ...
The source ...
The 5 V supply ...
The gate output ...
The 24 V supply ...

... sinks current from the lamp.
... sources charge into the lamp.
... has the same current as the drain.
... provides the logic gate with energy.
... draws no current from the logic gate.
... determines the voltage at the MOSFET gate.

3 The sentences give reasons why drivers are necessary for logic systems. Which **three** reasons are correct?

- Most output devices require a lot of power.
- Logic gates can only source current, not sink it.
- Very few output devices can operate from a 5 V supply.
- LEDs need a lot more charge than logic gates can provide.
- The maximum output current from a logic gate is only a few milliamps.