

MOSFIT

Key parameters:

1. **Starting voltage:** the minimum voltage between gate and source to turn the MOSFIT on.
2. **Resistance:** the resistance between source and drain while the MOSFIT is on.
3. **Max voltage:** maximum voltage that the MOSFET can handle without breaking down.
4. **Power dissipation:** maximum power the MOSFIT can dissipate to heat.

Operating regions:

1. **Cutoff region:** where the MOSFIT is being off.
2. **Triode region:** where the MOSFIT is being on. Current is controlled by V_D .
3. **Saturation region:** where the MOSFIT is being fully on but current is controlled by V_G .

Guidelines on selecting the right MOSFET:

Choosing the right MOSFIT is based on its key parameter. We chose a MOSFIT with a low the resistance, max voltage that exceeds the max circuit voltage and high power dissipation.