1. **MOSFET Characteristics**

MOSFETs are one of the most common power electronic component that can be found everywhere in our daily life. The main purpose of using this device is switching. The main advantage of MOSFETs are their high frequency switching capabilities, namely their speed. Therefore, five most important parameters of MOSFETs are the ones effect the switching performance. Also, voltage and current ratings of them are essential to select proper component for a specific application.

1. **Maximum Drain to Source Voltage (Breakdown Voltage) (VDsmax)**
2. **Maximum Collector Current (ICmax)**
3. **Threshold Voltage (VGSth)**
4. **Gate Charge (Qg)**
5. **Drain-Source On-Resistance (RDson)**