

DENEY RAPORU

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| **Deney Adı** | Extraction of DC Characteristics of BJT and MOSFET |
| **Deneyi Yaptıran Ar. Gör.** | Serkan Yıldız |
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| **Grup Numarası ve**  **Deney Tarihi** | D27 / 05.12.2014 |

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| **Rapor Notu** | **Teslim Edildiği Tarih** | **Teslim Alındığı Tarih** |
|  | 12.12.2014 |  |

**Extraction of DC Characteristics of BJT and MOSFET**

In this experiment basic DC characteristics of BJT and NMOS transistors for different operating regions are studied.

**Exp 2.1**

Forward active mode for BJT is studied, common emitter configuration is constructed. R1 is changed from 1M to 33k in order to obtain DC characteristics. Values are written to appendix, plots are given below.





**Exp 2.2**

Same configuration in the previous experiment is used, for saturation, R1 is moved to R3 and set to 33k. For reverse active mode, Vc is reversed, also R1 is taken as 33k. DC values are written to appendix.

**Exp 2.3**

NMOS configuration is built, R2 is changed from 100k to 15k for achieving DC characteristics. Plot is given below.



**Exp 2.4**

Vgs is 4.60 V, VDS is changed from 1 V to 10 V, ID-VDS plot is gained.