JFET Characteristics

Objectives:

- i. To investigate the **drain characteristics** of JFET.
- ii. To investigate the **transfer characteristics** of JFET.

1.Theory:

- **Should contain:**

- i. Introduction to **JFET.**

- ii. Drain characteristics of **JFET:(ID=f(VDS),** for **VGS** constant.

- iii. Transfer characteristics of **JFET:(ID=f(VGS),** for **VDS** constant.

Equipment and components required:

- i. JFET, BFW11 -1 pcs

- ii. Solid state VOM -1pcs
- iii. DC milliammeter, 0-10mA -1pcs
- iv. DC power supply,0-20volts (VDD) -1pcs
- v. DC bias supply, 0-5volts(VGG) -1pcs
- Electronics cad tool simulation software installed computer.

Procedure 1 :-
Pin configuration of JFET Bfw 10/11

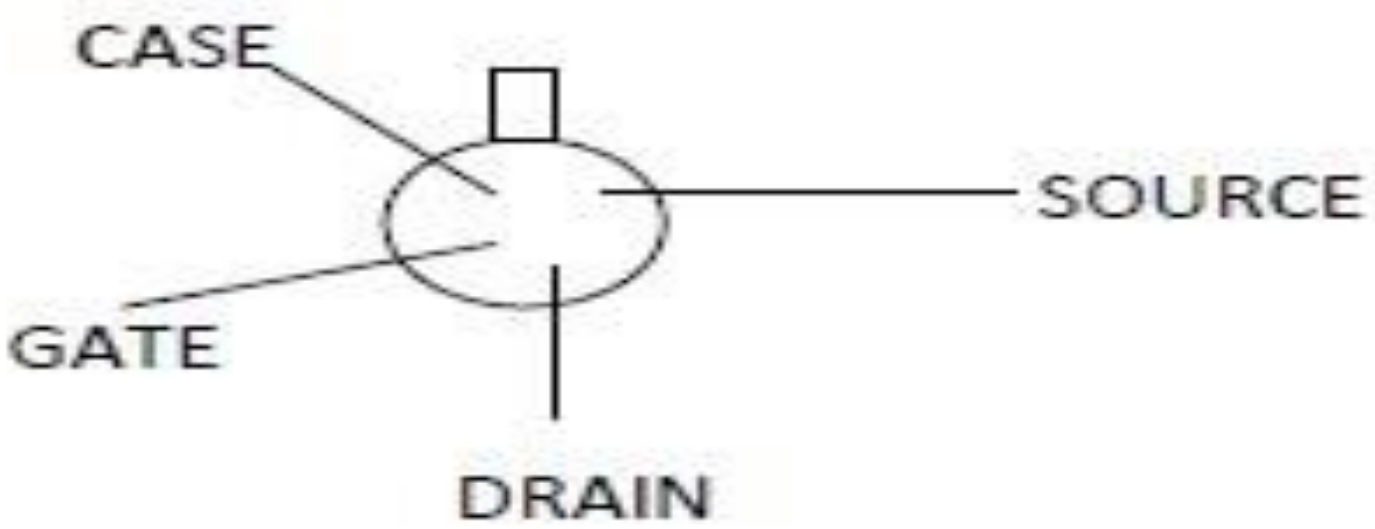
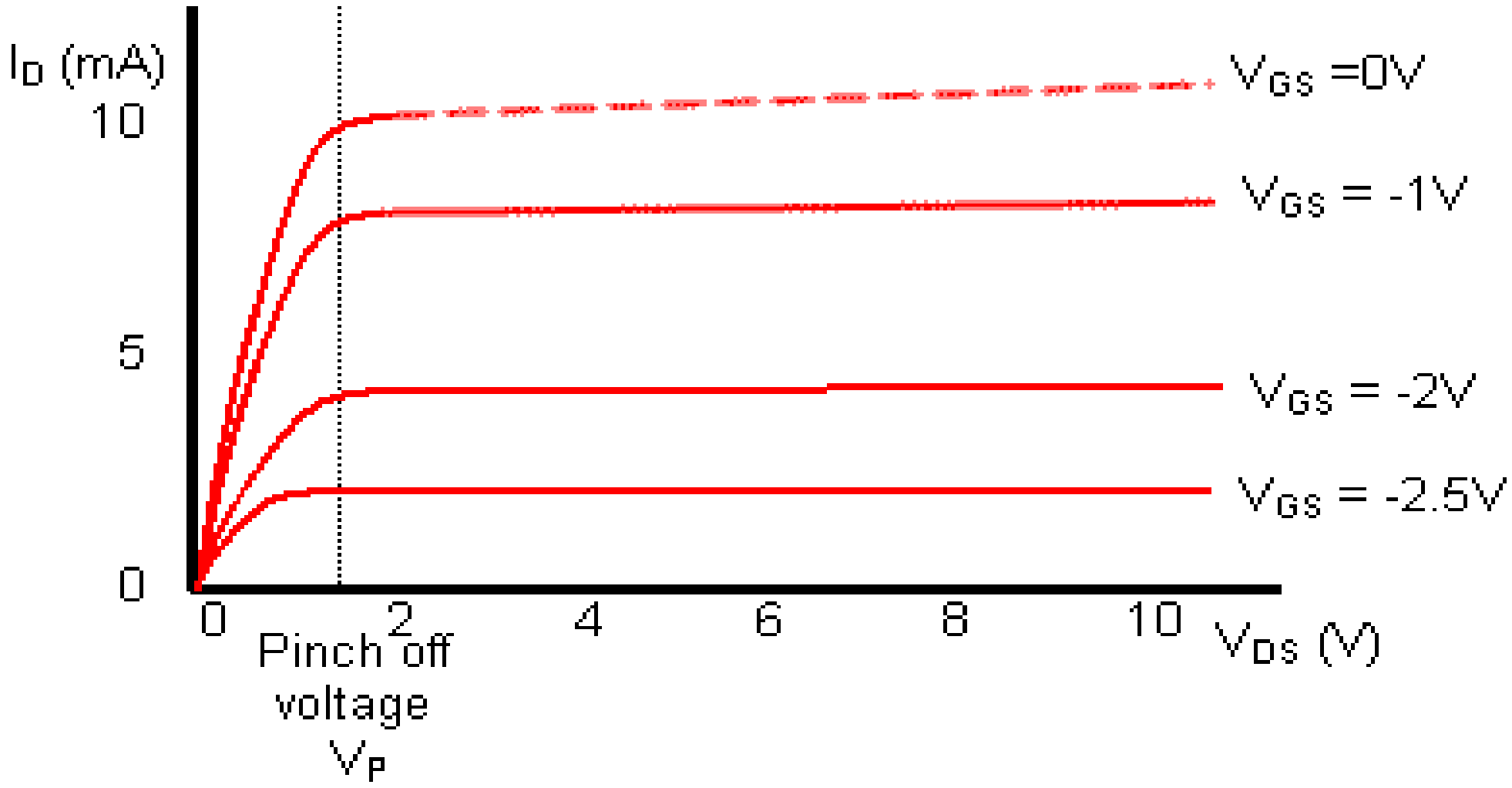
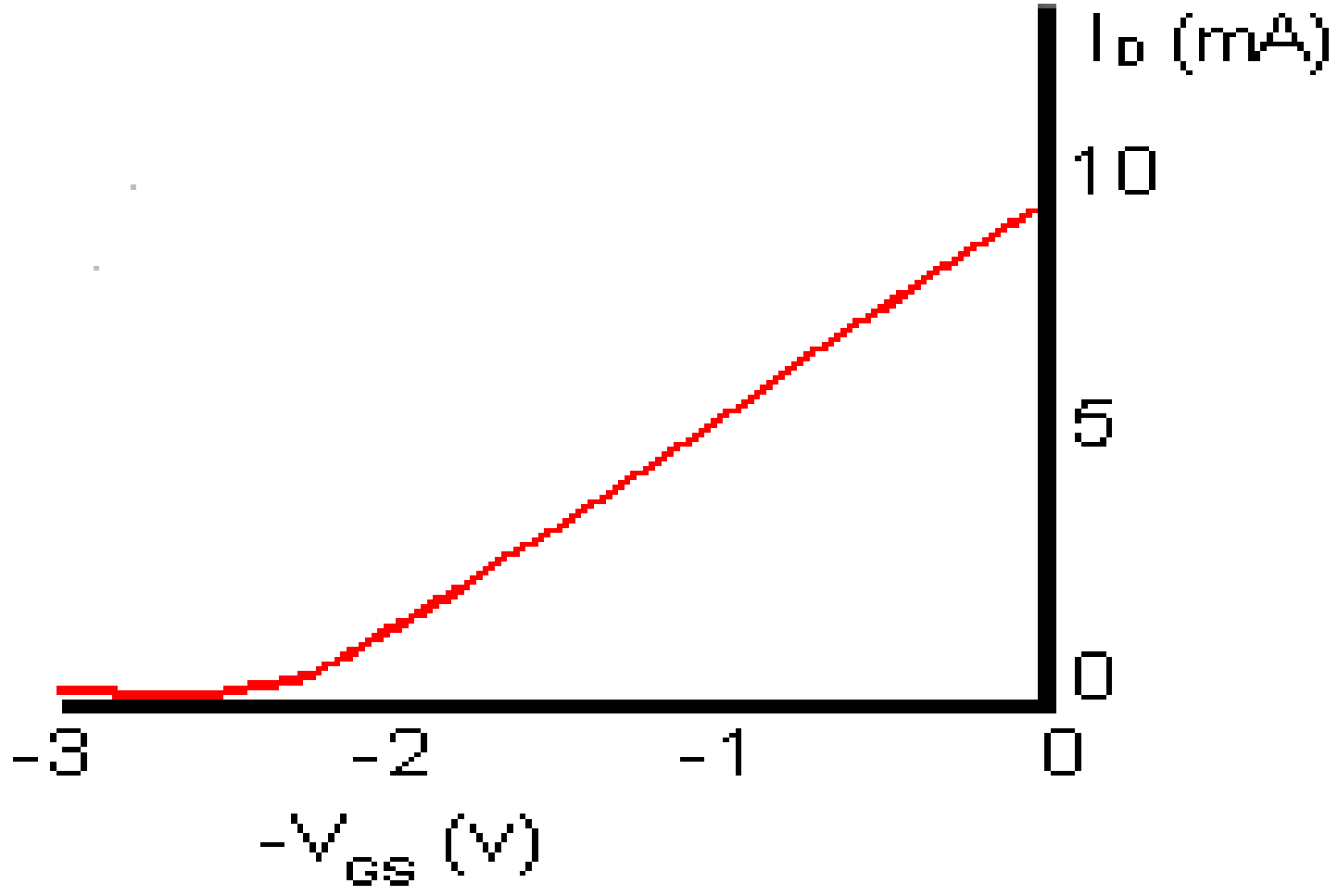


fig: JFET

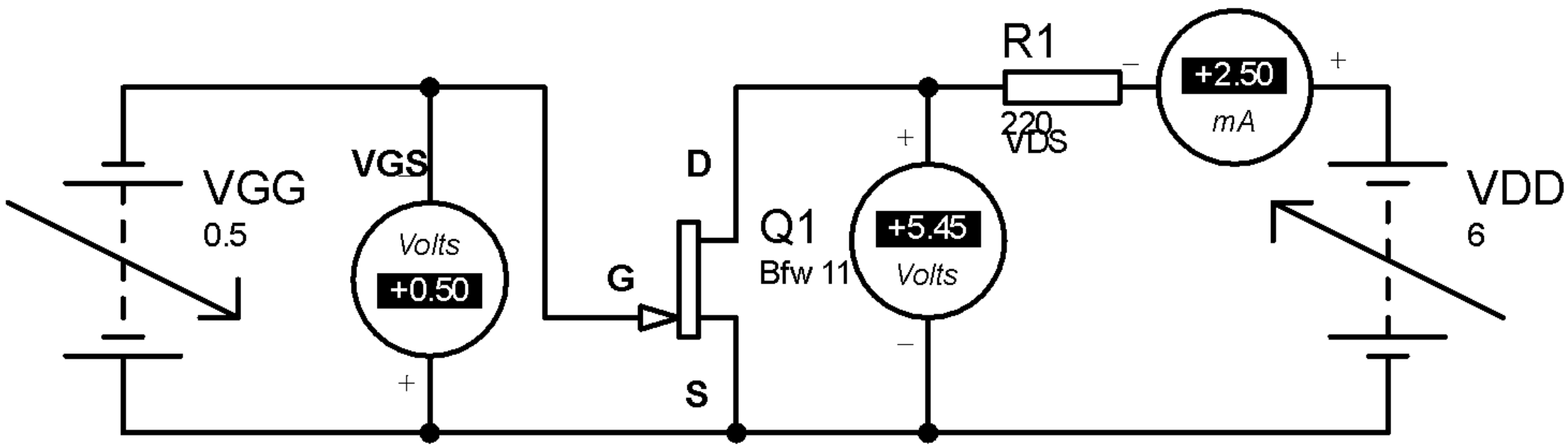
Drain Characteristics curve for JFET



Transfer characteristics of JFET



Practical Circuit diagram for Drain and transfer characteristics of JFET



Observations :

Table for Drain Characteristics of JFET(BFW11)

	DRAIN CURRENT I_D ma ↓				
V_{GS}(V)→	**0**	**0.25**	**0.5**	**1**	**1.2**
v_{DS}(V)↓					
0.1					
0.2					
0.3					
0.5					
0.75					
1					
1.25					
1.5					
2.0					
2.5					

Table For Transfer Characteristics

	For Transfer Characteristics: V_{DS}= 2.5v						
I_D (ma)→							
V_{GS} →	0	0.25	0.5	0.75	1	1.25	1.5