

Aim:

Aim of this experiment is to investigate the small signal AC model of diode and learn more about usage of themn.

Experimental Work:

1) a. In this part we setupped the circuit in preliminary work. First we put $R=3,9k$, this is for part 1. Then we put $R=56k$ and this is for part 2. we turned off the generator and measured the DC voltage drop across the diode

	<u>Part1</u>	<u>Part2</u>	<u>Part3</u>
DC voltage drop across the $1k\Omega$	0,9277V	0,1890V	
V_{DQ}	0,6042	0,4901V	

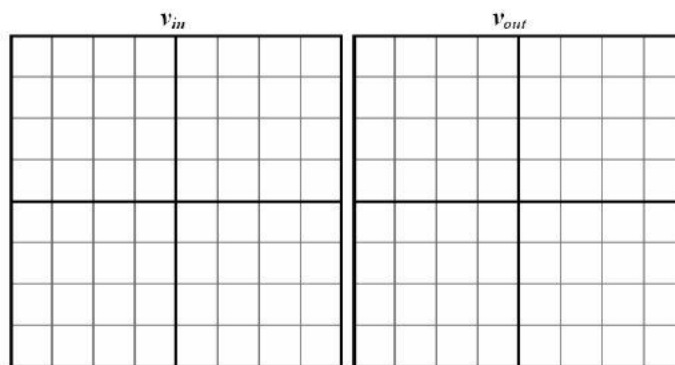
b. In this part we turned on the generator and measured the signals by oscilloscope.

The gain for part 1 and part 2;

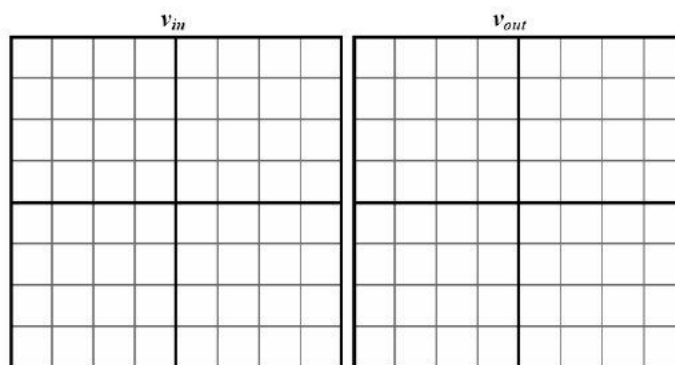
$A_v = V_{out}/V_{in} = 82mV/100mV = 0,82$ $A_v = 0,947$ in preliminary work (for part 1)

$A_v = V_{out}/V_{in} = 58mV/100mV = 0,58$ (for Part 2)

PART1



PART2



c.

	<u>Part1</u>	<u>Part2</u>	<u>Part3</u>
V_M	910 mV	176 mV	

d. This time we changed the oscilloscope to X-Y mode and measured the signals of input and output for part1 and part2.

