

## BJT- CE INPUT CHARACTERISTICS

### INSTRUCTION

EXPERIMENTAL TABLE		
Serial No.	Collector-Emitter Voltage 1.000 V	
	Base-Emitter Voltage V	Base Current( $\mu$ A)
1	0.1000	2.307
2	0.2000	2.661
3	0.3000	3.070
4	0.4000	3.542
5	0.5000	4.085
6	0.6000	4.713
7	0.7000	5.437
8	0.8000	6.271
9	0.9000	7.235
10	1.000	8.345

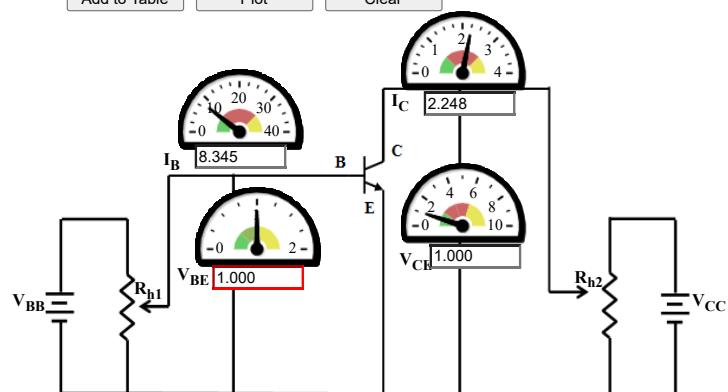
CONTROLS

R<sub>h1</sub>  Ohms [50]      R<sub>h2</sub>  Ohms [10]

Add to Table    Plot    Clear

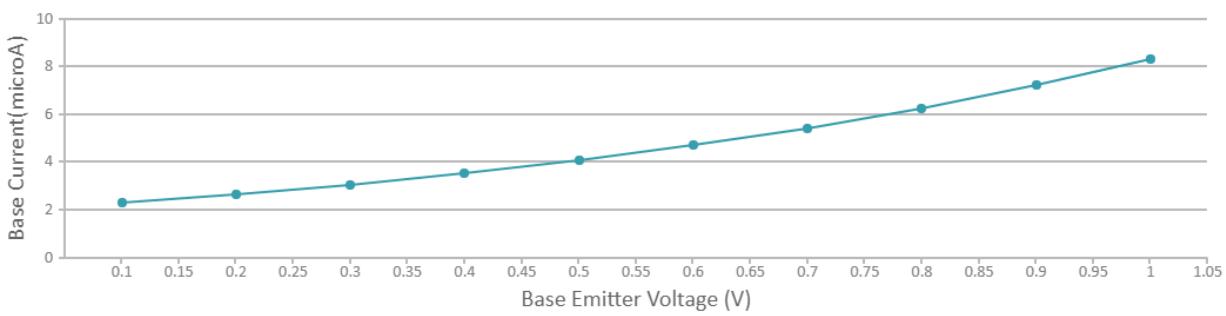
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Take another sets of Base-Emitter and Base Current readings for another Collector-Emitter value



### GRAPH PLOT

V-I Plot

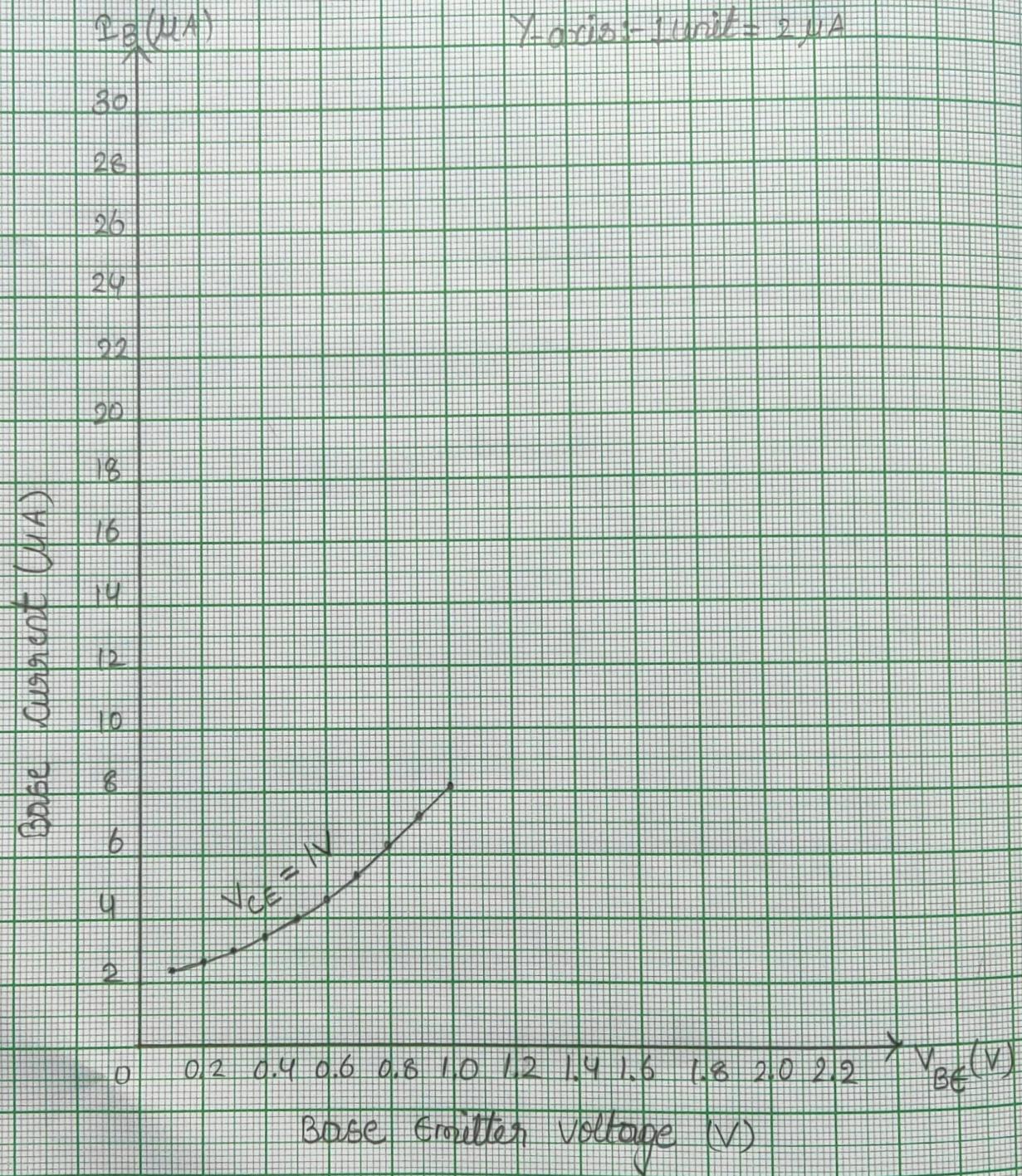


## Input characteristics of Common Emitter BJT

Scale :-

X-axis :- 1 unit = 0.2 V

Y-axis :- 1 unit = 2  $\mu$ A



## BJT- CE INPUT CHARACTERISTICS

### INSTRUCTION

EXPERIMENTAL TABLE		
2	0.2000	2.661
3	0.3000	3.070
4	0.4000	3.542
5	0.5000	4.085
6	0.6000	4.713
7	0.7000	5.437
8	0.8000	6.271
9	0.9000	7.235
10	1.000	8.345
11	1.100	9.627
12	1.200	11.11
13	1.300	12.81
14	1.400	14.78
15	1.500	17.05
16	1.600	19.67
17	1.700	22.69
18	1.800	26.17
19	1.900	30.19

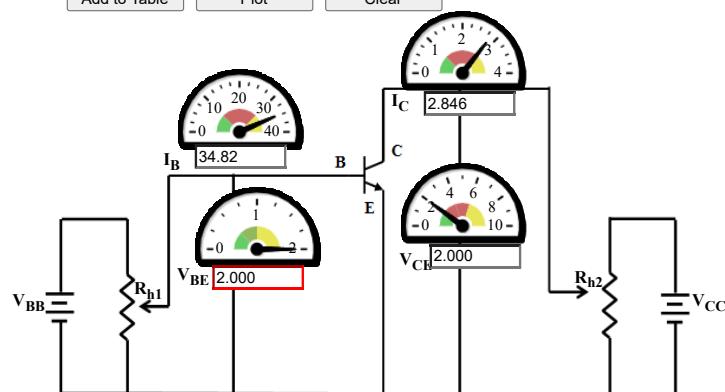
CONTROLS

R<sub>h1</sub>  Ohms [100]  
R<sub>h2</sub>  Ohms [20]

Add to Table Plot Clear

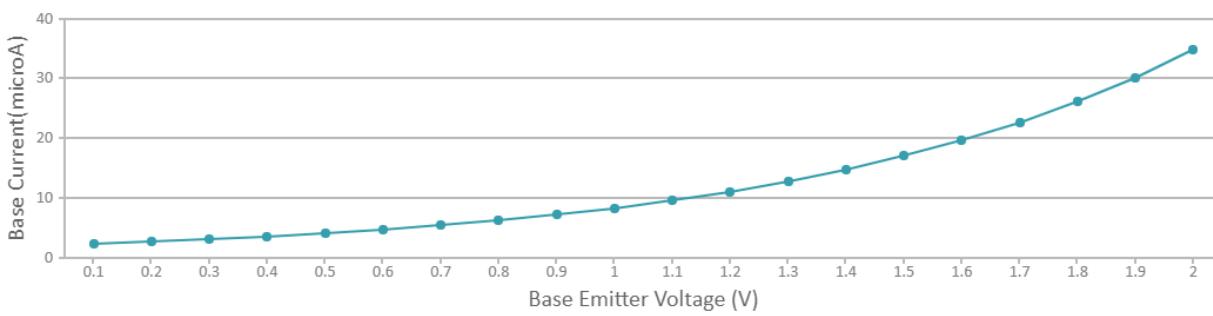
[Print It](#)

Take another sets of Base-Emitter and Base Current readings for another Collector-Emitter value



### GRAPH PLOT

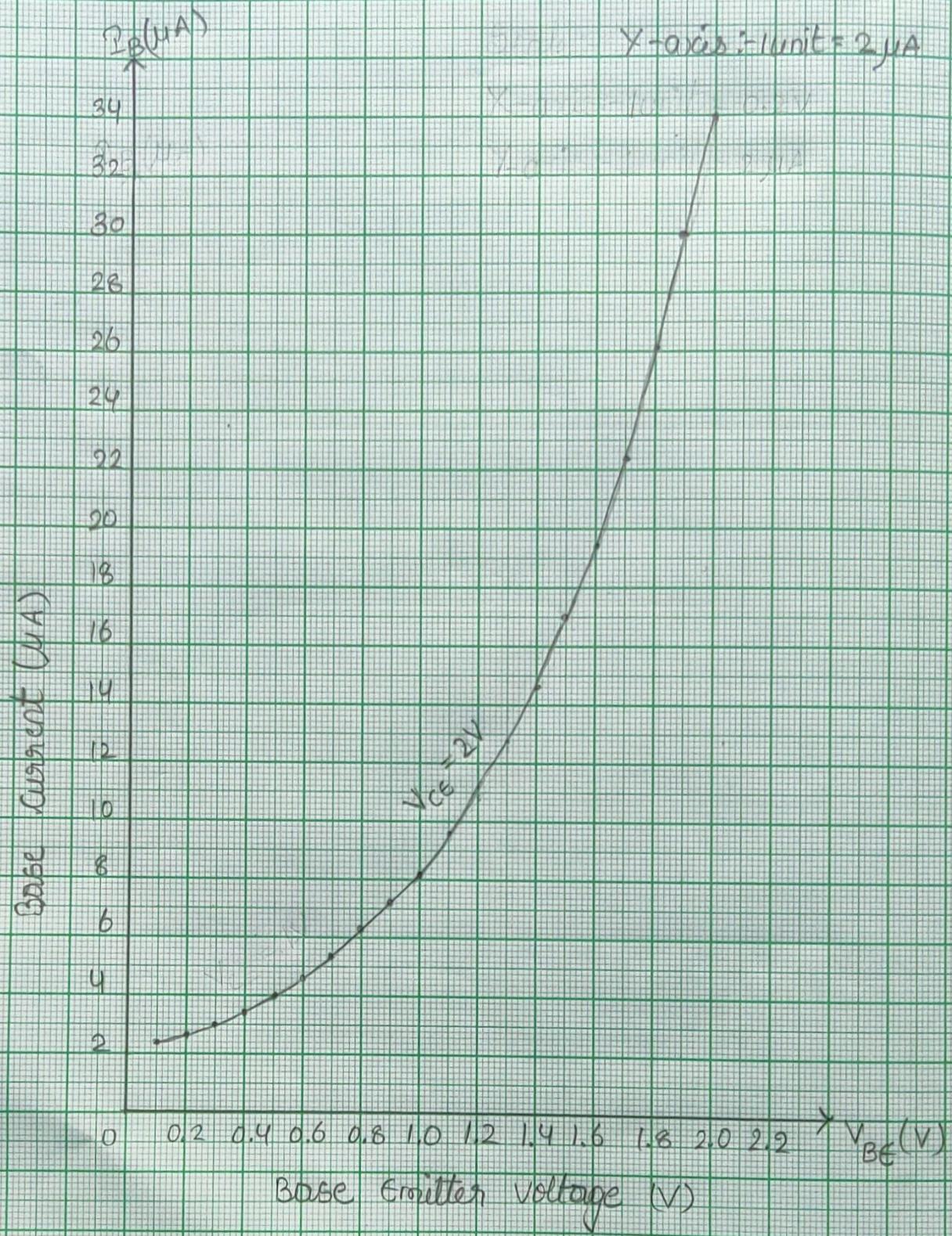
V-I Plot



## Input characteristics of common Emitter BJT

X-axis :- 1 unit = 0.2 V

Y-axis :- 1 unit = 2  $\mu$ A



## BJT- CE INPUT CHARACTERISTICS

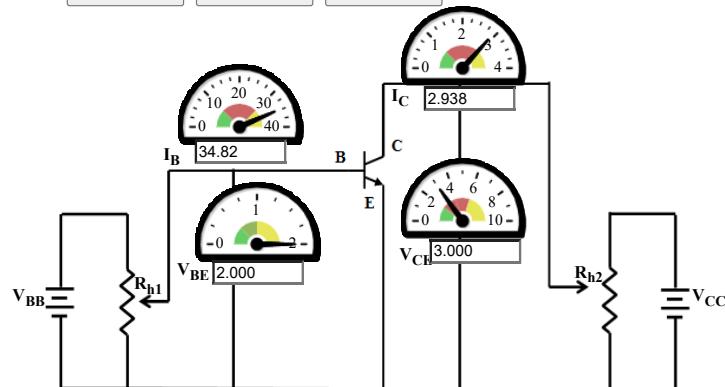
### INSTRUCTION

EXPERIMENTAL TABLE		
No.	Base-Emitter Voltage V	Base Current( $\mu$ A)
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12	1.200	11.11
13	1.300	12.81
14	1.400	14.78
15	1.500	17.05
16	1.600	19.67

CONTROLS

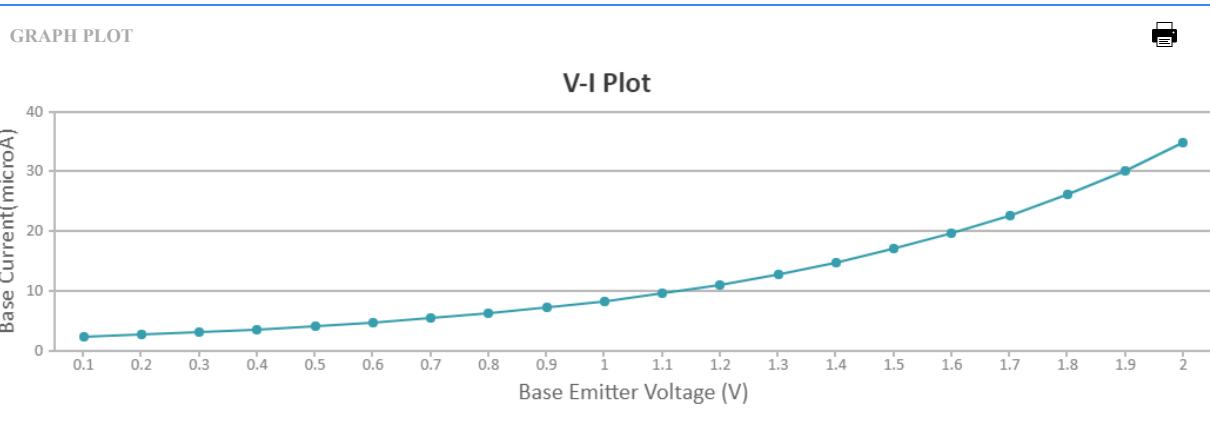
R<sub>h1</sub>  Ohms [100]  
R<sub>h2</sub>  Ohms [30]

Add to Table Plot Clear



Print It

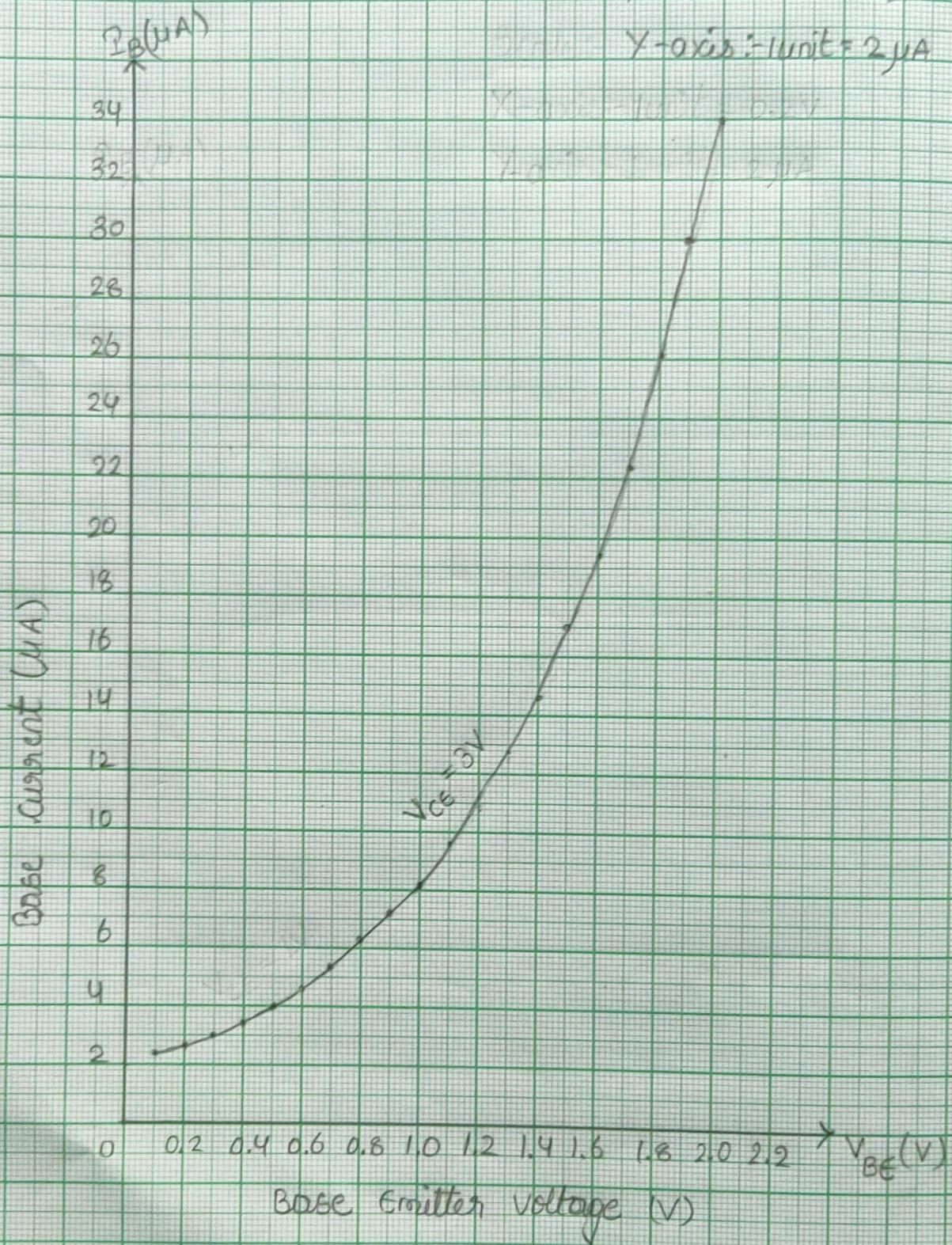
Take another sets of Base-Emitter and Base Current readings for another Collector-Emitter value



## Input characteristics of common emitter BJT

X-axis : 1 unit = 0.2 V

Y-axis : 1 unit = 2  $\mu$ A



## BJT- CE INPUT CHARACTERISTICS

### INSTRUCTION

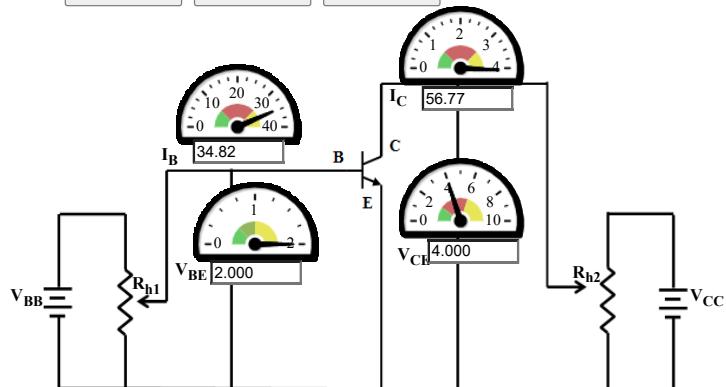
EXPERIMENTAL TABLE		
3	0.3000	3.070
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11	1.100	9.627
12	1.200	11.11
13	1.300	12.81
14	1.400	14.78
15	1.500	17.05
16	1.600	19.67
17	1.700	22.69
18	1.800	26.17
19	1.900	30.19
20	2.000	34.82

### CONTROLS

Ohms **100**  
 Ohms **40**

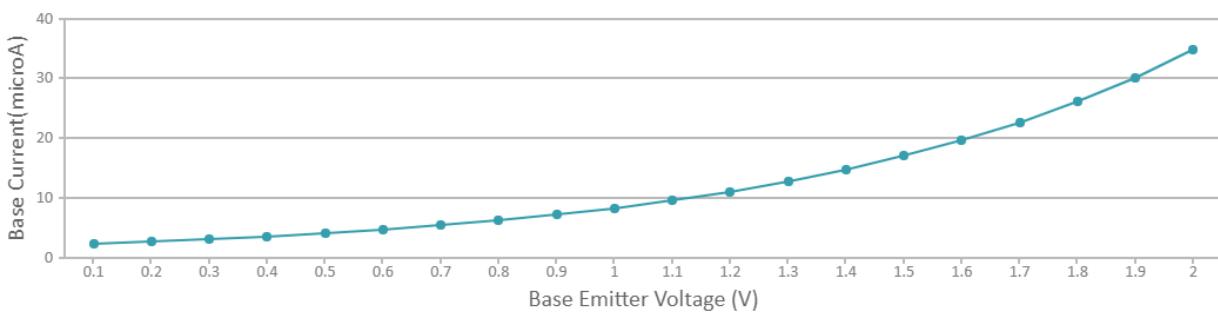
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Take another sets of Base-Emitter and Base Current readings for another Collector-Emitter value

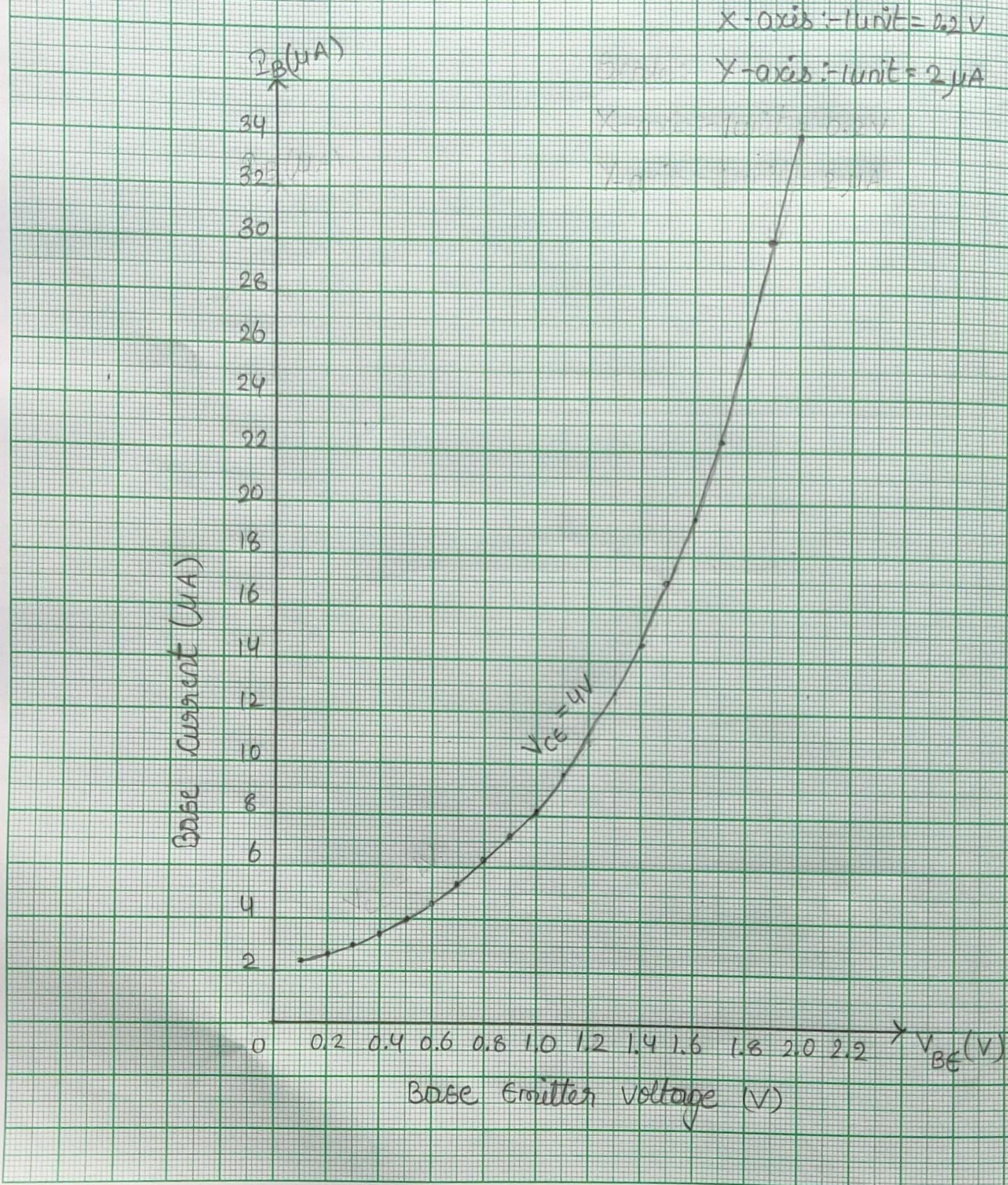


### GRAPH PLOT

**V-I Plot**



## Input characteristics of common emitter BJT



## BJT- CE OUTPUT CHARACTERISTICS

### INSTRUCTION

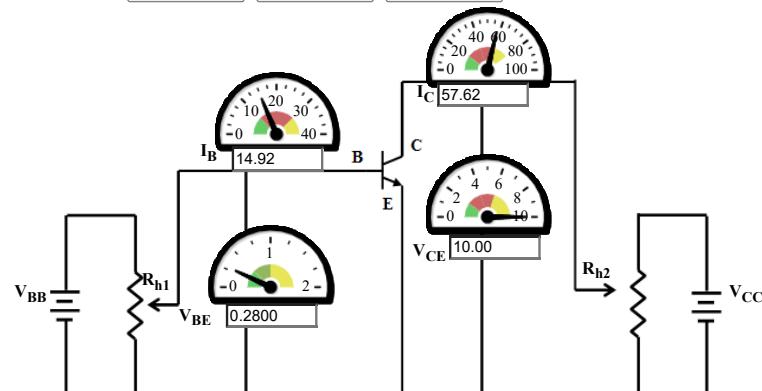
EXPERIMENTAL TABLE		
Serial No.	Base-Current 14.92 $\mu$ A	
	Collector-Emitter Voltage V	Collector Current mA
1	0.1000	3.290
2	1.000	43.88
3	2.000	55.55
4	3.000	57.34
5	4.000	57.58
6	5.000	57.62
7	6.000	57.62
8	7.000	57.62
9	8.000	57.62
10	9.000	57.62
11	10.00	57.62

### CONTROLS

Ohms 14  
 Ohms 100

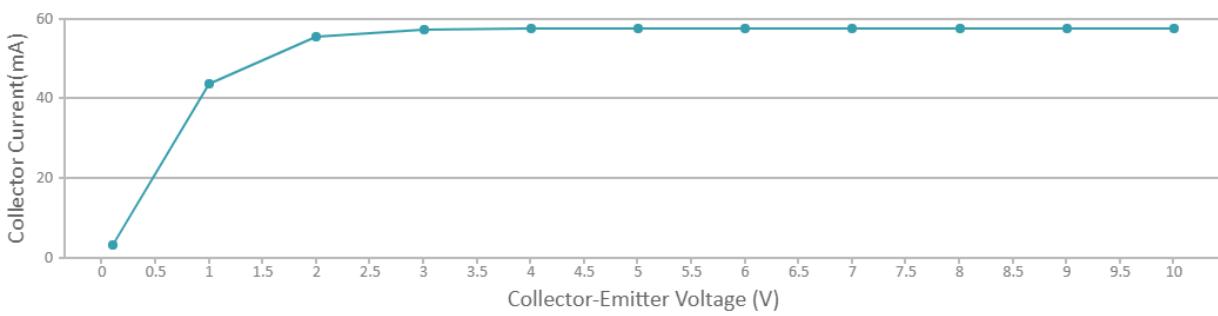
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Take another sets of Collector-Emitter and Collector Current readings for another Base Current

[Add to Table](#)
[Plot](#)
[Clear](#)


### GRAPH PLOT

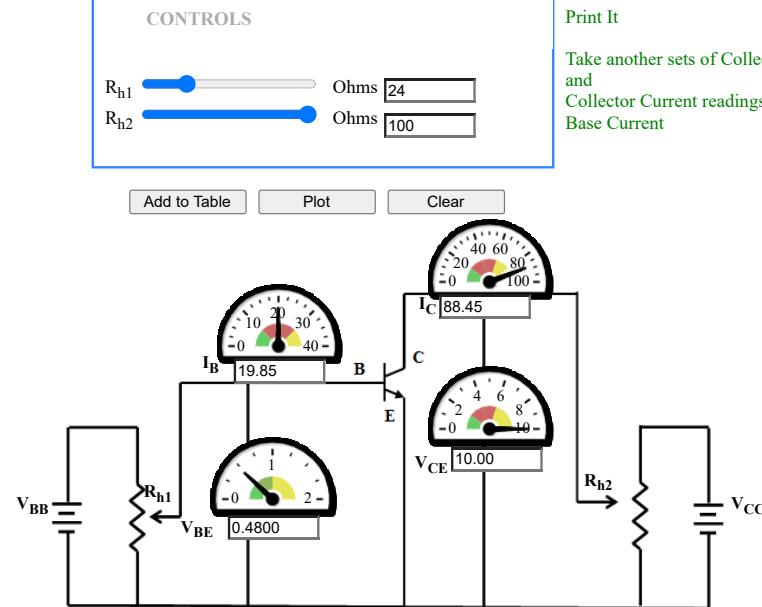
V-I Plot



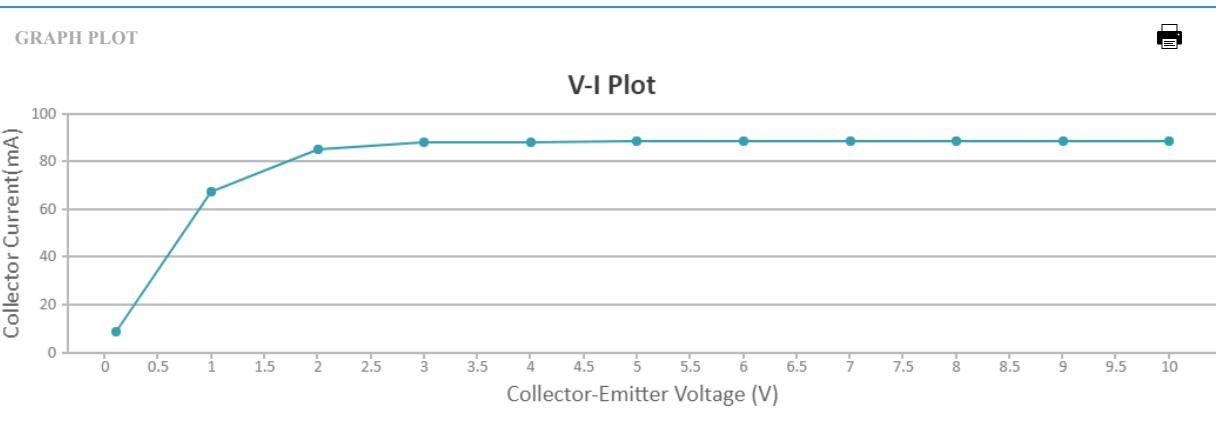
## BJT- CE OUTPUT CHARACTERISTICS

### INSTRUCTION

EXPERIMENTAL TABLE		
Serial No.	Base-Current 19.85 $\mu$ A	
	Collector-Emitter Voltage V	Collector Current mA
1	0.1000	8.816
2	1.000	67.36
3	2.000	85.27
4	3.000	88.01
5	4.000	88.39
6	5.000	88.44
7	6.000	88.45
8	7.000	88.45
9	8.000	88.45
10	9.000	88.45
11	10.00	88.45


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Take another sets of Collector-Emitter and Collector Current readings for another Base Current



# Output characteristics of Common Emitter BJT

Scale :-

X-axis: 1 unit = 1V

Y-axis: 1 unit = 10mA

