

ELEKTRİK VE ELEKTRONİK BÖLÜMÜ

EEM 214 ELEKTRONİK-1

DENEY 3

RAPOR

Part 1: Determation of the Transistor's type, Terminals, and Material

Step	Meterleads connected to BJT		Diode check reading (Or highest resistance range)
	Positive	Negative	
c	1	2	
d	2	1	
e	1	3	
f	3	1	
g	2	3	
h	3	2	

Table 8.1

Part 1 (i)	Base terminal	
Part 1 (j)	Transistor type	
Part 1 (k)	Collector terminal	
Part 1 (k)	Emitter terminal	
Part 1 (l)	Transistor material	

Table 8.2

Part 2: The Collector characteristics

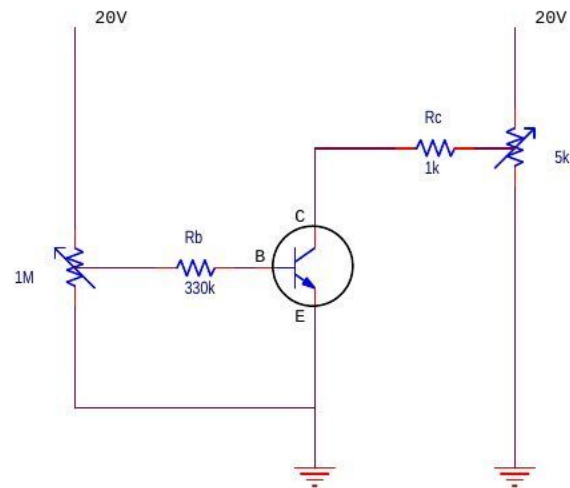


Figure 8-2 Circuit to determine characteristics of a BJT

V_{RB} (V) (meas)	I_B (μ A) (calc)	V_{CE} (V) (meas)	V_{RC} (V) (meas)	I_C (mA) (cal)	V_{BE} (V) (meas)	I_E (mA) (calc)	α (calc)	β (calc)
3.3	10	2						
		4						
		6						
		8						
		10						
		12						
		14						
		16						
6.6	20	2						
		4						
		6						
		8						
		10						
		12						
		14						
9.9	30	2						
		4						
		6						
		8						
		10						
13.2	40	2						
		4						
		6						
		8						
16.5	50	2						
		4						
		6						

**Table 8.3 Data for Construction of Transistor Collector Curve
and Calculations of Transistor Parameters**

Exercises

- 1-) (calculated) β (average) =
- 2-) (calculated) V_{BE} (average) =