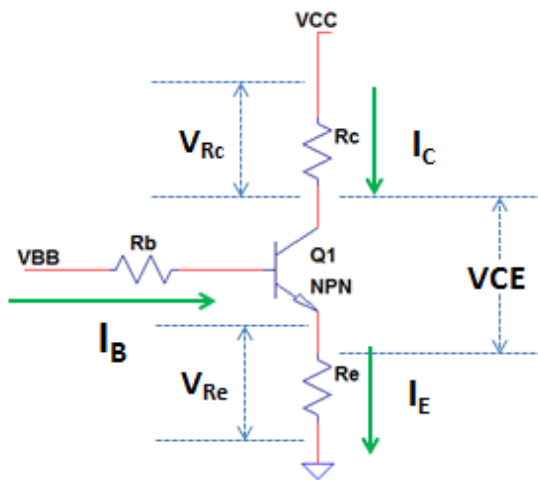


Transistor Values



$$I_B = \frac{V_{BB} - V_{BE}}{R_b + (1 + \beta) \cdot R_e}$$

$$V_{RC} = I_C \cdot R_c$$

$$I_C = \beta \cdot I_B$$

$$V_{RE} = I_E \cdot R_e$$

$$I_E = I_B + I_C$$

$$V_{CE} = V_{CC} - I_B \cdot (\beta \cdot R_c + R_e + \beta \cdot R_e)$$

Max Ratings

Number	Type	Style	Vbe (sat)	Vce (sat)	hFE	Vce (max)	Vcb (max)	Vbe (max)	Ic (max)	Data Sheet
BC337	NPN	CBE	1.2v	0.7v	100 (@100mA)	45v	50v	5v	800 mA	https://www.onsemi.com/pub/Collateral/BC337-D.PDF
BC327	PNP	CBE				-45v		-5v	-800mA	
2N2222	NPN	EBC				30v	60v	5v	800mA	
2N2907	PNP	EBC				-40v	-60v	-5v	-600mA	
2N3904	NPN	EBC				40v	60v	6v	200mA	
2N3906	PNP	EBC				-40v	-40v	-5v	200mA	
S8050	NPN	EBC				20v	30v	5v	700mA	
S8550	PNP	EBC				-25v	-40v	-5v	-700mA	
C1815	NPN	EBC				50v	60v	5v	150mA	
A1015	PNP	EBC				-50v	-50v		-150mA	
S9013	NPN	EBC				25v	45v	5v	500mA	
S9012	PNP	EBC				25v	40v	5v	-500mA	
S9014	NPN	EBC				45v	50v	5v	100mA	

Styles

Style	
EBC	Plastic Body TO-92 1. Emitter 2. Base 3. Collector
CBE	Collector, Base, Emitter

