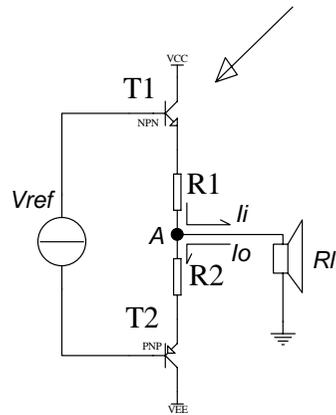


Hi pacificblue, I think this model is the one you talk about:



A typical amplifier output stage

1: current through  $R_L$ :

If the NPN specification = PNP specification:

Then  $i_i = i_o \rightarrow$  point A voltage  $V_a = 0 \rightarrow$  so not current through  $R_L$

But mostly like below:

Then  $i_i > i_o \rightarrow$  point A voltage  $V_a > 0 \rightarrow$  so some current through  $R_L$

Then  $i_i < i_o \rightarrow$  point A voltage  $V_a < 0 \rightarrow$  so some current through  $R_L$

but the model I showed you last time is a single-end output stage, it must have the idle current through the  $R_L$  and it should have a capacitor between the  $R_L$  and the amplifier to avoid the idle current through the  $R_L$

2: source impedance

If the NPN specification = PNP specification:

$$R_{t1-ce} = (V_{CC} - i_i R_1) / i_i$$

1: when  $i_i = i_o = 0.01A$   $R_{t1-ce}$

2: when  $i_i = i_o = 1A$   $R_{t1-ce}$

many people said if they rise the idle current (if rise enough it will be a class A)

the amplifier will sound better than before

that is because when the idle rise the source impedance goes down

so the amplifier will be "stronger" to drive the speaker