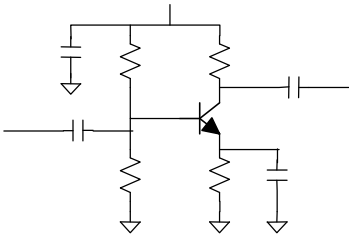
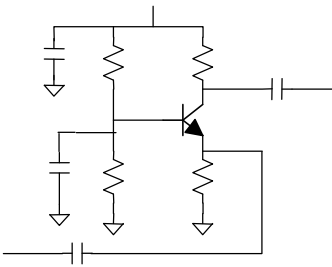
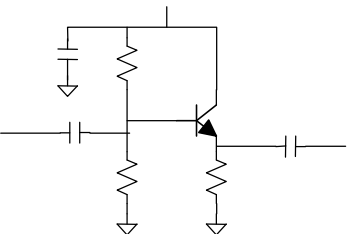


BJT Amplifier Configurations

Configuration	Representative Circuit	Approx. Formulas	$A_{V_{no-load}}$	R_i	R_o
Common Emitter		$A_{V_{no-load}} = -g_m R_c$ $R_i = r_{\pi} \parallel R_{b1} \parallel R_{b2}$ $R_o = R_c$	High	Med	Med
Common Base		$A_{V_{no-load}} = +g_m R_c$ $R_i = 1/g_m \parallel R_E \parallel r_{\pi}$ $R_o = R_c$	High	Low	Med
Common Collector		$A_{V_{no-load}} \approx 1$ $R_i = R_{b1} \parallel R_{b2} \parallel r_{\pi}(1 + g_m R_E)^*$ $R_o = 1/g_m^{**}$	Unity	High	Low
* Assumes unloaded output ** Assumes low source R					