Common Source	Common Gate	Common Drain
$\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array}$	V_{DD} R_{D} R_{Out} V_{out} V_{in} R_{s} R_{in}	$ \begin{array}{c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $
$G_{M} = \frac{g_{m}}{1 + (g_{m} + g_{mb})R_{S} + \frac{R_{S}}{r_{o}}}$	$G_M = -\frac{(g_m + g_{mb}) + \frac{1}{r_o}}{1 + R_S(g_m + g_{mb}) + \frac{R_S}{r_o}}$	$G_M \cong -g_m$
$R_{out} = R_D \parallel [r_o + R_S + (g_m + g_{mb})r_oR_S]$	$R_{out} = R_D \parallel [r_o + R_S + (g_m + g_{mb})r_oR_S]$	$R_{out,source} = R_S \parallel \left[\frac{r_o + R_D}{1 + (g_m + g_{mb})r_o} \right]$