Analysis and Design of Elementary MOS Amplifier Stages

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Table 4-1

$unprotect('\gamma')$:

Parameter	n-channel MOSFET	p-channel MOSFET
Threshold voltage (at V_{BS}=0)	$V_{T0n} := 0.5[\![V]\!]$:	$V_{T0p} := -0.5[\![V]\!]$:
Transconductance parameter	$\mu nC_{ox} := 50\frac{[\![uA]\!]}{[\![V]\!]^2}$:	$\mu pC_{ox} := 25\frac{[\![uA]\!]}{[\![V]\!]^2}$:
Channel length modulation parameter	$\lambda_{Ln} := 0.1\cdot\frac{[\![um]\!]}{[\![V]\!]}$:	$\lambda_{Lp} := 0.1\cdot\frac{[\![um]\!]}{[\![V]\!]}$:
Gate oxide capacitance per unit area	$C_{ox} := 2.3\frac{[\![fF]\!]}{[\![um]\!]^2}$:	
Overlap capacitance	$C_{ov} := 0.5\frac{[\![fF]\!]}{[\![um]\!]}$:	
Zero-bias planar bulk depletion capacitance	$C_{Jn} := 0.1\frac{[\![fF]\!]}{[\![um]\!]^2}$:	$C_{Jp} := 0.3\frac{[\![fF]\!]}{[\![um]\!]^2}$:
Zero-bias sidewall bulk depletion capacitance	$C_{JSWn} := 0.5\frac{[\![fF]\!]}{[\![um]\!]}$:	$C_{JSWp} := 0.35\frac{[\![fF]\!]}{[\![um]\!]}$:
Zero-bias well-to-substrate capacitance	-	$C_{Jwell} := 0.05\frac{[\![fF]\!]}{[\![um]\!]^2}$:
Bulk junction potential	PB:=0.95[\![V]\!] :	
Planar bulk junction gradient coefficient	$MJ := 0.5$:	
Sidewall bulk junction gradient coefficient	$MJSW := \frac{1}{3}$:	
Length of source and drain diffusions	$L_{diff} := 3[\![um]\!]$:	
Backgate effect parameter	$\gamma_n := 0.6[\![V]\!]^{\frac{1}{2}}$:	$\gamma_p := 0.6[\![V]\!]^{\frac{1}{2}}$:
Surface potential parameter	$\phi_f := 0.4[\![V]\!]$:	