LIST OF SYMBOLS

\( I_D \) - drain current

\( I_0 \) - intrinsic current

\( L_{eq} \) - equivalent length

\( W \) - transistor width

\( L \) - transistor length

\( V_p \) - pinchoff voltage

\( V_{TO} \) - threshold voltage in equilibrium

\( V_s \) - intrinsic source to bulk voltage

\( V_D \) - intrinsic drain to bulk voltage

\( n \) - slope factor slightly dependent on \( V_G \), greater than one and usually less than two. (derivative of gate voltage with respect to pinch-off voltage)

\( \Phi_t \) - thermal voltage

\( \Phi_f \) - fermi potential for holes

\( \mu_0 \) - low field mobility

\( C_{ox} \) - gate oxide capacitance/unit area

\( I_C \) - inversion coefficient

\( L \) - transistor length

\( N_{SUB} \) - channel doping

\( V_{FB} \) - flatband voltage

\( \Delta L \) - shrink in channel length

\( \lambda \) - channel length modulation parameter

\( V_{DS} \) - drain to source voltage

\( V_{DSAT} \) - drain saturation voltage
UCRIT - longitudinal critical field $\text{V/m}$

$\theta$ (THETA)- mobility reduction coefficient due to transversal field

$\gamma$ (GAMMA)- body effect factor

$\sigma$ (SIGMA) - DIBL coefficient

PHI - bulk Fermi potential

VMAX - saturation velocity

TOX - oxide thickness

gmdb - drain transconductance

gmgb - gate transconductance

gmsb - source transconductance

VTO - zero bias threshold voltage

XJ - Junction depth

LAMBDA - channel length modulation parameter
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