$$W_{eff} = W_{drawn} - 2dW$$

$$\begin{split} dW &= dW' + dW_g V_{gsteff} + dW_b \left( \sqrt{\Phi_s - V_{bseff}} - \sqrt{\Phi_s} \right) \\ dW' &= W_{\text{int}} + \frac{W_l}{L^{W \ln}} + \frac{W_w}{W^{Wwn}} + \frac{W_{wl}}{L^{W \ln} W^{Wwn}} \end{split}$$

$$dL = L_{\text{int}} + \frac{L_l}{L^{L \ln}} + \frac{L_w}{W^{Lwn}} + \frac{L_{wl}}{L^{L \ln} W^{Lwn}}$$

## **B.1.10Source/Drain Resistance**

$$R_{ds} = \frac{R_{dsw} \left( 1 + P_{rwg} V_{gsteff} + P_{rwb} \left( \sqrt{\Phi_s - V_{bseff}} - \sqrt{\Phi_s} \right) \right)}{\left( 10^6 W_{eff} \right)^{W_r}}$$

## **B.1.11Temperature Effects**

$$V_{th(T)} = V_{th(Tnorm)} + (K_{T1} + K_{t1l} / L_{eff} + K_{T2}V_{bseff})(T / T_{norm} - 1)$$

$$\mu_{o(T)} = \mu_{o(Tnorm)} \left(\frac{T}{T_{\cdots}}\right)^{\mu_{te}}$$

$$v_{sat(T)} = v_{sat(Tnorm)} - A_T(T / T_{norm} - 1)$$