$$i_D = I_S\left(e^{rac{v_D}{nV_T}}-1
ight)$$

$$= R_S$$
 $C_D = \frac{\tau}{V_T}I_Se^{rac{v_D}{nV_T}} + rac{C_{j0}}{\left(1-rac{v_D}{V_0}
ight)^n}$

$$i_D = I_S\left(e^{rac{v_D}{nV_T}}-1
ight)$$