



**Equation**

Eqn2  
GMIN=1e-12  
fa=(1-FC)^(1+m)  
fb=1-FC\*(1+m)  
rs\_AREA=rs/Area  
Vt=vt(300)

**Diagram:** A schematic diagram of a diode structure. It shows a central region labeled **PANODE1** connected to a resistor  $RS1$  with  $R=rs\_AREA$ . The resistor is connected to a central node. Below this node, there are four vertical lines representing the diode structure, labeled 1, 2, 3, and 4. The bottom of the structure is connected to a node labeled **PCATHODE1**.

**Equation**

Eqn3  
 $Cj0\_T2=cj0*(1+m*(400e-6*(T2-T1)-(Vj\_T2-Vj)/Vj))$   
 $A=7.02e-4$   
 $B=1108$   
 $T1=Tnom+273.15$   
 $Vj\_T2=(T2/T1)*Vj*(-2*kB*T2/q)*ln((T2/T1)^1.5)-((T2/T1)*Eg\_T1-Eg\_T2)$   
 $I_s\_T2=I_s*(T2/T1)^(XTI/n)*limexp((-q*Eg)/(kB*T2))*(1-T2/T1)$   
 $Eg\_T1=Eg-A*T1*T1/(B+T1)$   
 $Eg\_T2=Eg-A*T2*T2/(B+T2)$   
 $T2=Temp+273.15$