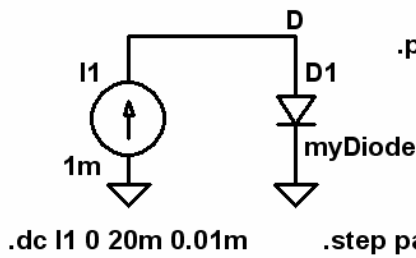


Diode Adjustment

Kubov V.I., 2012

How to adjust Diode parameters to get necessary I(V) dependence?
Here is recipe.



.param I0=10m V0=0.711 dV=25m; ideal diode

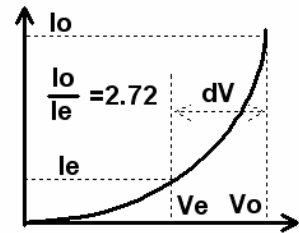
.model myDiode D(N={N} Is={Is})

.param VT=25m

.param N=dV/VT

.param Is=I0*exp(-(V0-VT)/dV)

.step param dV list 10m 25m 50m 100m 200m



Diode Model

.model myDiode D(N={N} Is={Is})

.param VT=25m

.param N=dV/VT

.param Is=I0*exp(-(V0-VT)/dV)

You need only 3 parameters:

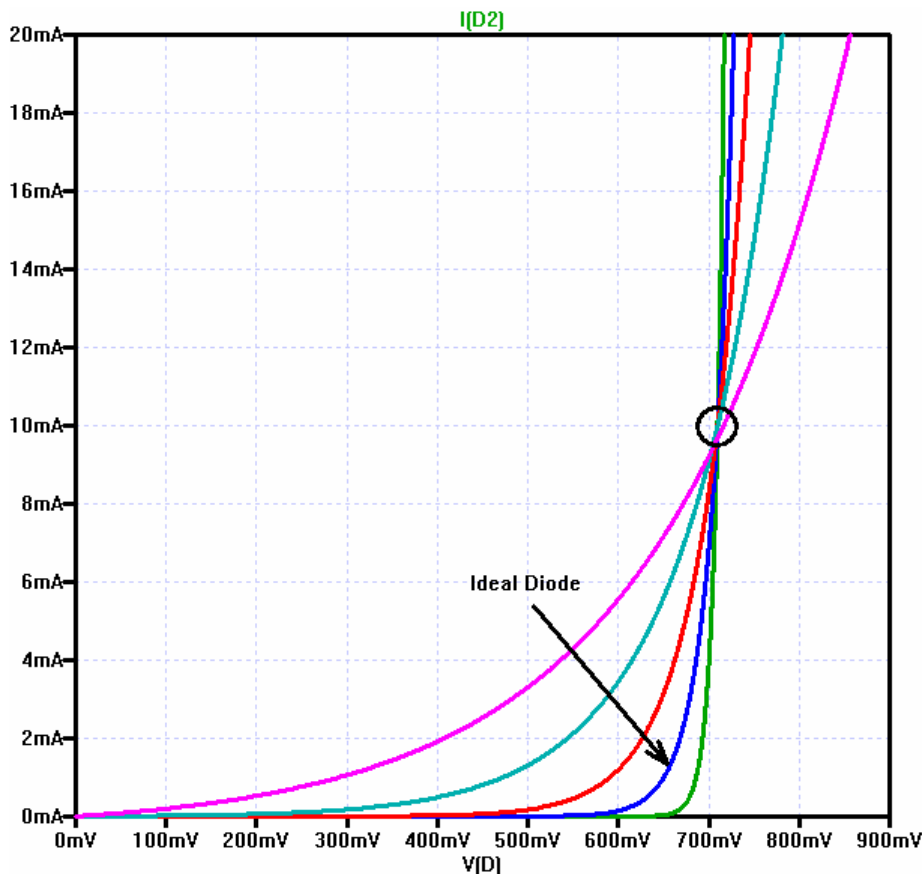
I0 - maximum current;

V0 - maximum votage;

dV - voltage slope for current decreases e-times (e=2.718...).

Ideal Diode Parameters

.param I0=10m V0=0.711 dV=25m; ideal diode



I0=10mA; V0=0.711V; dV=10mV, 25mV, 50mV, 100mV, 200mV