



```

alter VG dc =      $&Vbias
ac               dec 30 .0001GHz 100GHz

let g =          (db(a)+60)
let f =          mag(frequency[ sortorder( abs(g+3.0) )[0] ] )
let cg =         1/(6.28e4*f)
echo            "$&unknown.Vbias  $&cg"
let             unknown.{ $thisName }[ unknown.k-1 ] = cg
destroy
let k =         k + 1
*endwhile
endrepeat

```

```

settype notype   unknown.{ $thisName }
let Vgate =      VbiasVals -2
setscale         Vgate
plot             $thisName   title "CV_Curve_Nmos"
echo            "Done."
.endc

```

```

.model          NMOSC          NMOS
+ Level= 8      Tnom=27.0
*-----Process-----
+ tox=160e-10  xj=0.25e-06      nch=0.5e+17
*-----V_threshold-----
+ vth0=0.72    nlx=0.12e-06
*-----Bulk-----
+ k1=1.04      k2=-1.209E-01
*-----mobility-----
+ u0=678       ua=8.964e-10
+ ub=1.472e-18 uc=-4.441E-17    vsat=86000
*-----Subthreshold-----
+ nfactor=1.8
+ cit=-5.0E-04 voff=-7.862E-02
+ eta0=4.441e-16 etab=-2.E-01    dsub=0.7
*-----Hot electrons-----
+ alpha0=1.61e-05 beta0=36.68
*-----VAF-----
+ lint=.12e-06 pclm=.19        psobel=3.79e+08   psobe2=9.4e-05
+ delta=0.01655 pvag=0.4484
*-----Bulk_diode-----
+ js=5.858e-08
*-----Resistance-----
+ rsh=70       rdsw=375
+ wr=0.7586    prwb=0          prwg=-4.441E-17
*-----Capacitance-----
+ cj=0.0002424 cjsw=2.73e-10    mj=0.3551       mjsw=0.3873
+ cgso=9e-13   cgdo=9e-13       cgbo=7e-10
+ cdsc=-2.4E-4 cdscd=-1.506E-01 cdsob=-2.219E-04
+ pb=0.5614    pbsw=0.8         xpart=0
+ dlc=5e-08    dwc=1.5e-07
*-----BulkChargeEffect-----
* a0=0.7       a1=0              a2=1             ags=0.05583
* b0=6.305e-08 b1=6.579e-08     keta=-1.531E-02
*-----ShortChannel-----
+ dvt0=2.2     dvt1=0.53        dvt2=-1.521E-01  drout=0.76
+ pdiblcb=.4   pdiblcl=0.00886  pdiblc2=0.00029
*-----NarrowChannel-----
+ w0=2.6e-04   wint=0.16e-06
+ ww=-9.525E-14 wwn=1.0
+ dvt0w=0      dvt1w=5.3e6      dvt2w=-1.E-01
+ k3=2.53      k3b=-5           dwg=0             dwb=0
*-----Noise-----
* af=1         kf=1e-28         ef=0.95
*-----Temperature-----
* pvsat=0      ute=-1.258E+00   kt1=-3.85E-01
* kt1l=0       kt2=-3.098E-02   ua1=5.705e-09
* ub1=-1.147E-17 uc1=-1.302E-01   at=20380
* prt=-3.287E+02 lk1=0             lk2=0
* lvsat=0      la0=0            lags=0            lute=0

```

\* luc=0

**.end**

\*=====END\_OF\_SPICE=====

To Covert PDF to plain text click below  
<http://www.fileformat.info/convert/doc/pdf2txt.htm>