

Model file for Power supply variation

* SPICE 3f5 Level 8, Star-HSPICE Level 49, UTMOST Level 8

.lib cmos_models

* DATE: Feb 23/01

* LOT: T0BM WAF: 07

* Temperature_parameters=Default

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.MODEL nmos NMOS ( LEVEL = 49
+VERSION = 3.1 TNOM = 27 TOX = 5.8E-9
+XJ = 1E-7 NCH = 2.3549E17 VTH0 = 0.3907535
+K1 = 0.4376003 K2 = 8.265151E-3 K3 = 4.214601E-3
+K3B = -3.7220937 W0 = 2.517345E-6 NLX = 2.310668E-7
+DVT0W = 0 DVT1W = 0 DVT2W = 0
+DVT0 = 0.2411602 DVT1 = 0.3707226 DVT2 = -0.5
+U0 = 316.5922683 UA = -9.89493E-10 UB = 2.154013E-18
+UC = 2.474632E-11 VSAT = 1.254499E5 A0 = 1.2735648
+AGS = 0.2428704 B0 = 2.579719E-8 B1 = -1E-7
+KETA = 4.87168E-4 A1 = 0 A2 = 0.5196633
+RDSW = 120 PRWG = 0.5 PRWB = -0.2
+WR = 1 WINT = 2.357855E-8 LINT = 1.210018E-9
+DWG = 2.292632E-9
+DWB = -9.94921E-10 VOFF = -0.1039771 NFACTOR = 1.3905578
+CIT = 0 CDSC = 2.4E-4 CDSCD = 0
+CDSCB = 0 ETA0 = 3.894977E-3 ETAB = 7.800632E-4
+DSUB = 0.0307944 PCLM = 1.7312397 PDIBLC1 = 0.999135
+PDIBLC2 = 4.850036E-3 PDIBLCB = -0.0866866 DROUT = 0.8612131
+PSCBE1 = 7.995844E10 PSCBE2 = 1.457011E-8 PVAG = 0.0099984
+DELTA = 0.01 RSH = 5 MOBMOD = 1
+PRT = 0 UTE = -1.5 KT1 = -0.11
+KT1L = 0 KT2 = 0.022 UA1 = 4.31E-9
+UB1 = -7.61E-18 UC1 = -5.6E-11 AT = 3.3E4
+WL = 0 WLN = 1 WW = -1.22182E-16
+WWN = 1.2127 WWL = 0 LL = 0
+LLN = 1 LW = 0 LWN = 1
+LWL = 0 CAPMOD = 2 XPART = 0.4
+CGDO = 3.11E-10 CGSO = 3.11E-10 CGBO = 1E-12
+CJ = 1.741905E-3 PB = 0.9876681 MJ = 0.4679558
+CJSW = 3.653429E-10 PBSW = 0.99 MJSW = 0.2943558
+CF = 0 PVTH0 = -0.01 PRDSW = 0
+PK2 = 2.589681E-3 WKETA = -1.866069E-3 LKETA = -0.0166961 )
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.MODEL pmos PMOS ( LEVEL = 49
+VERSION = 3.1 TNOM = 27 TOX = 5.8E-9
+XJ = 1E-7 NCH = 4.1589E17 VTH0 = -0.583228
+K1 = 0.5999865 K2 = 6.150203E-3 K3 = 0
+K3B = 3.6314079 W0 = 1E-6 NLX = 1E-9
+DVT0W = 0 DVT1W = 0 DVT2W = 0
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+DVT0 = 2.8749516   DVT1 = 0.7488605   DVT2 = -0.0917408
+U0   = 136.076212   UA   = 2.023988E-9   UB   = 1E-21
+UC   = -9.26638E-11 VSAT = 2E5         A0   = 0.951197
+AGS  = 0.20963      B0   = 1.345599E-6   B1   = 5E-6
+KETA = 0.0114727    A1   = 3.851541E-4   A2   = 0.614676
+RDSW = 1.496983E3   PRWG = -0.0440632   PRWB = -0.2945454
+WR   = 1           WINT = 7.879211E-9   LINT = 2.894523E-8
+DWG  = -1.112097E-8
+DWB  = 9.815716E-9   VOFF = -0.1204623   NFACTOR = 1.2259401
+CIT  = 0           CDSC = 2.4E-4       CDSCD = 0
+CDSCB = 0          ETA0 = 0.3325261   ETAB = -0.0623452
+DSUB = 0.9206875    PCLM = 0.833903   PDIBLC1 = 9.948506E-4
+PDIBLC2 = 0.0191187 PDIBLCB = -1E-3   DROUT = 0.9938581
+PSCBE1 = 2.887413E10 PSCBE2 = 8.325891E-9   PVAG = 0.8478443
+DELTA = 0.01       RSH  = 3.6         MOBMOD = 1
+PRT  = 0           UTE  = -1.5        KT1  = -0.11
+KT1L = 0           KT2  = 0.022       UA1  = 4.31E-9
+UB1  = -7.61E-18   UC1  = -5.6E-11   AT   = 3.3E4
+WL   = 0           WLN  = 1           WW   = 0
+WWN  = 1           WWL  = 0           LL   = 0
+LLN  = 1           LW   = 0           LWN  = 1
+LWL  = 0           CAPMOD = 2         XPART = 0.4
+CGDO = 2.68E-10    CGSO = 2.68E-10    CGBO = 1E-12
+CJ   = 1.864957E-3   PB   = 0.976468   MJ   = 0.4614408
+CJSW = 3.118281E-10 PBSW = 0.6870843   MJSW = 0.3021929
+CF   = 0           PVTH0 = 6.397941E-3   PRDSW = 30.410214
+PK2  = 2.100359E-3   WKETA = 5.428923E-3   LKETA = -0.0111599 )
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.endl