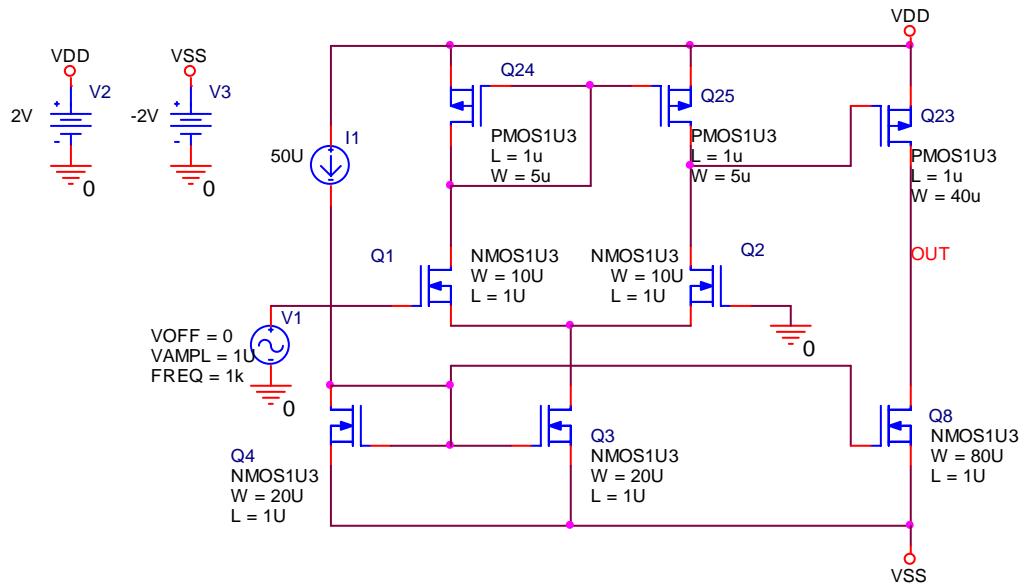
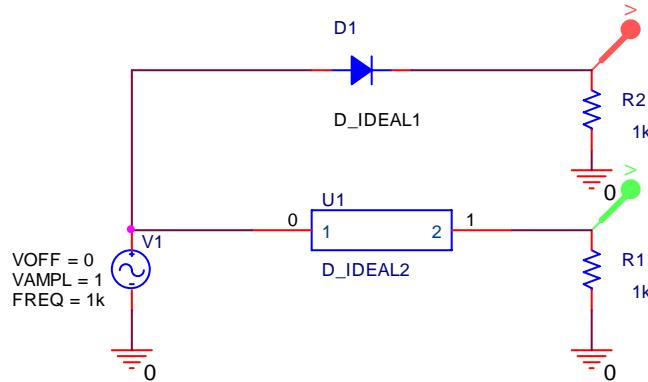


```

.model D_IDEAL1 D (IS=1e-16 N=1e-6)
*
.subckt D_IDEAL2 1 2
g12 1 2 table {v(1,2)}=(0,0) (0.005,5000)
.ends
*
.model nmos08u nmos kp=110u vto=0.7 gamma=0.4 phi=0.7
+lambd=0.04
*
.model pmos08u pmos kp=50u vto=-0.7 gamma=0.57 phi=0.8
+lambd=0.05
*
* 1 um Level 3 models
.MODEL NMOS1u3 NMOS LEVEL = 3
+ TOX = 200E-10 NSUB = 1E17 GAMMA = 0.5
+ PHI = 0.7 VTO = 0.8 DELTA = 3.0
+ UO = 650 ETA = 3.0E-6 THETA = 0.1
+ KP = 120E-6 VMAX = 1E5 KAPPA = 0.3
+ RSH = 0 NFS = 1E12 TPG = 1
+ XJ = 500E-9 LD = 100E-9
+ CGDO = 200E-12 CGSO = 200E-12 CGBO = 1E-10
+ CJ = 400E-6 PB = 1 MJ = 0.5
+ CJSW = 300E-12 MJSW = 0.5
*
.MODEL PMOS1u3 PMOS LEVEL = 3
+ TOX = 200E-10 NSUB = 1E17 GAMMA = 0.6
+ PHI = 0.7 VTO = -0.9 DELTA = 0.1
+ UO = 250 ETA = 0 THETA = 0.1
+ KP = 40E-6 VMAX = 5E4 KAPPA = 1
+ RSH = 0 NFS = 1E12 TPG = -1
+ XJ = 500E-9 LD = 100E-9
+ CGDO = 200E-12 CGSO = 200E-12 CGBO = 1E-10
+ CJ = 400E-6 PB = 1 MJ = 0.5
+ CJSW = 300E-12 MJSW = 0.5
*
```



CMOS diferencijalni pojednjavac



Idealna dioda