

NGSPICE

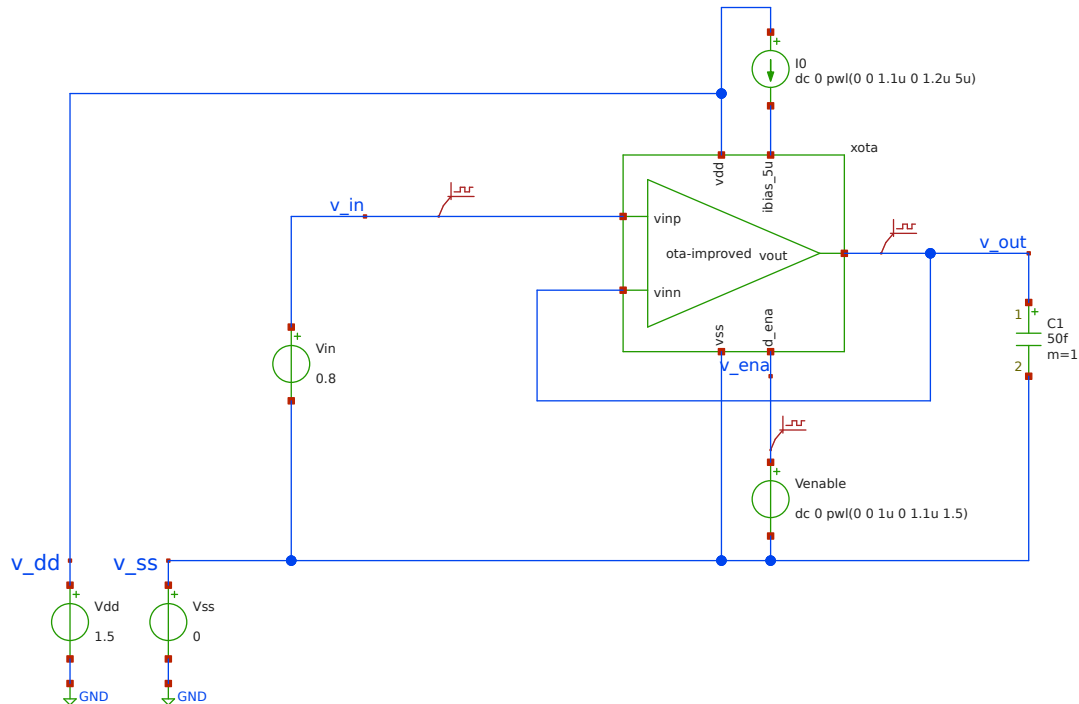
```
.temp 27

.ic v(v_out)=0
.option method=gear

.control
tran 0.005u 15u uic
plot v_ena v_out

let vout_limit=0.8*0.99
meas tran tcross WHEN v(v_out)=vout_limit
let vena_limit=0.5*1.5
meas tran tstart WHEN v(v_ena)=vena_limit
let tsettle=tcross-tstart
print tsettle

.endc
```



MODEL

```
.lib cornerMOSlv.lib mos_tt
.lib cornerRES.lib res_typ
```

→ simulate

➡ annotate OP