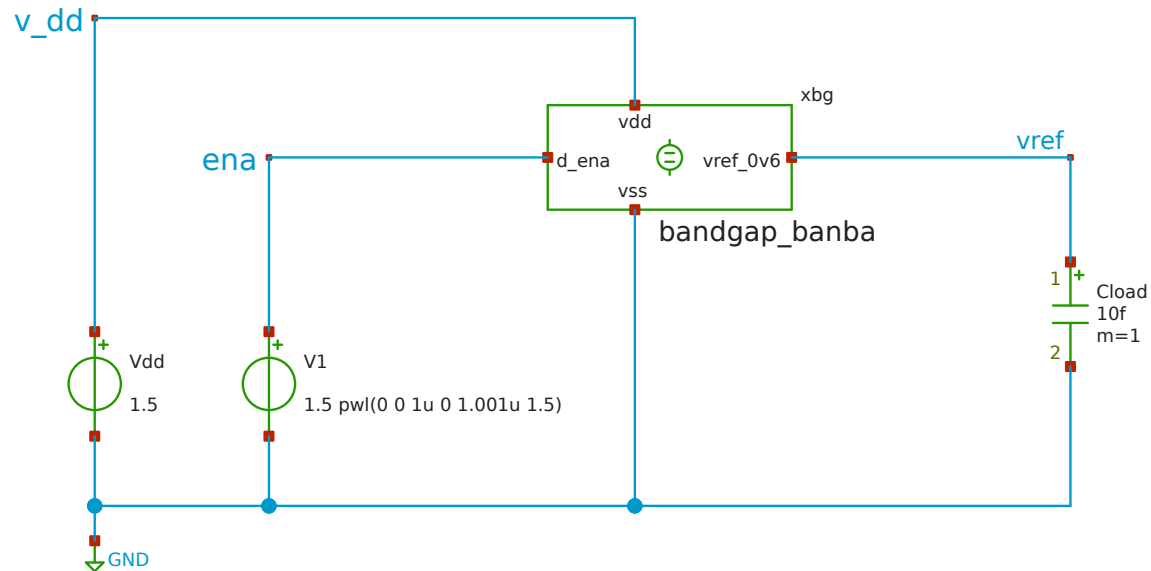```
.include bandgap_banba_tb.save
.control
option klu
option method=gear
option noacct
option noinit
save v(vref)
save all

compose temp_vec start=-30 stop=125 step=5
let vref_vec=vector(length(temp_vec))
let idx=0

foreach tmp $&temp_vec
  option temp=$tmp
  tran 0.01u 50u
  meas tran vr FIND v(vref) AT=50u
  let vref_vec[idx]=vr
  let idx=idx+1
end

plot vref_vec vs temp_vec
wrdata bandgap_banba.txt vref_vec vs temp_vec

.endc
```

MODEL

```
.lib cornerMOSlv.lib mos_tt
.lib cornerHBT.lib hbt_typ
.lib cornerRES.lib res_typ
```


v_dd

ena

xbg

vdd

d_ena   vref_0v6

vss

bandgap_banba

vref

Cload
10f
m=1

Vdd
1.5

V1
1.5 pwl(0 0 1u 0 1.001u 1.5)

GND

simulate   annotate OP

XSCHEM

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2025-10-02 10:37:02

bandgap_banba_tb.sch