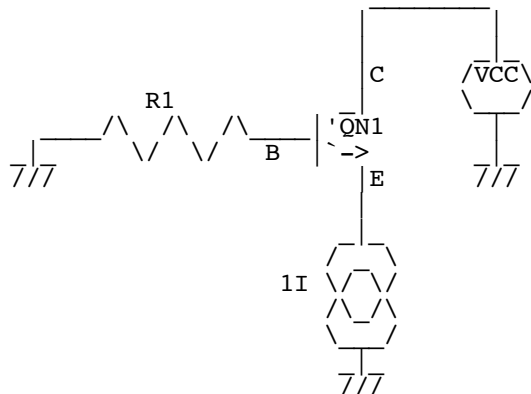


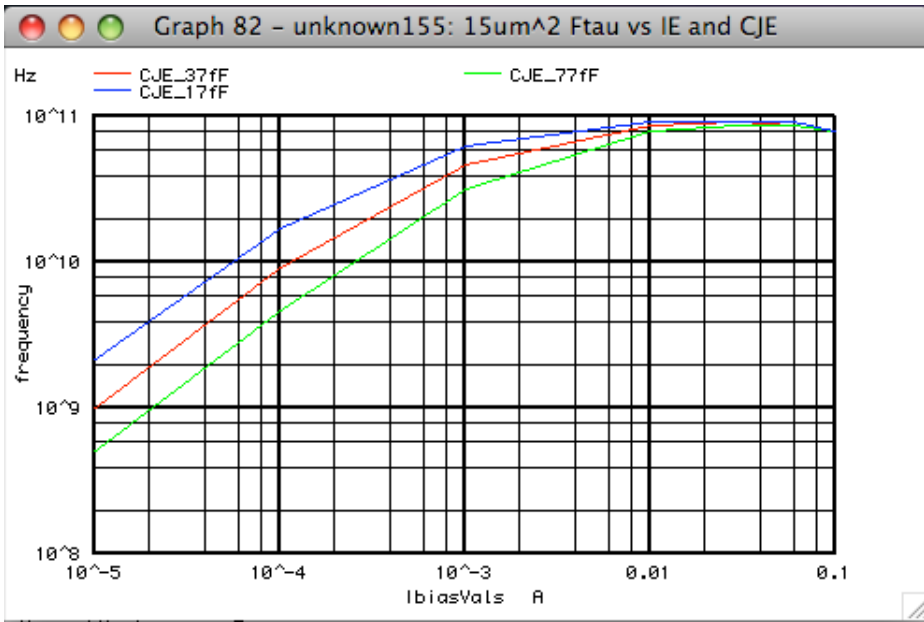
NPN_Ftau_15uu_CJE

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.OPTIONS      GMIN=1e-15  METHOD=gear  ABSTOL=1e-15  TEMP=27  srcsteps = 1  gminsteps = 1
VCC          C          0          DC          5V
QN1          C          B          E          NPNV
R1           0          B          1
I1           E          0          DC          100u    AC      .01u

.control
echo          "15um^2 Ftau vs IE and CJE"
setplot      new
set NameList = ( CJE_37fF CJE_77fF CJE_17fF )
compose CjeVals values 37f 77f 17f
compose IbiasVals values 10u 100u 1m 10m 30m 60m 100m
settype current IbiasVals
let NoOfCje = length(CjeVals)
let NoOfIbias = length(IbiasVals)
begin
unset        interrupt
* =====Loop_CJE=====
let j =      1
while        ( j <= NoOfCje )
let cje =    CjeVals[j-1]
altermod     npnv cje = $&cje
echo         "=>Ibias = Ftau@CJE=$&cje"
set thisName = $NameList[$&j]
let $thisName = 0*vector(NoOfIbias)
* =====Loop_Ibias=====
let k =      1
while        ( k <= NoOfIbias )
let Ibias =  IbiasVals[k-1]
alter I1 dc = $&Ibias
alter I1 ac = .01u
ac           dec 30 .0001GHz 100GHz
* =====Find_Ftau===== Use
let g =      (-db(b) - 160)
let f =      3.16*mag(frequency[ sortorder( abs(g-10.0) )][0] )
echo         "$&unknown.Ibias $&f"
let          unknown.{ $thisName}[unknown.k-1] = f
destroy
if           (?interrupt)
goto        bail
endif
let k =      k + 1
endwhile
let j =      j + 1
endwhile
setscale    IbiasVals
plot        $NameList loglog title "15um^2 Ftau vs IE and CJE"
label      bail
echo        "Done."
end
.endc
```

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