RC_3dB

```
*
*
*                R1
*  VIN
*        _____/\  /\  /\_______|OUT|
*       |       \/  \/    |     |___|
*      _|__                |
*     /_   \             _|_
*    //\   \             ___ C1  Find 3dB freq
*    \   \_//             _|_
*     \____/              ///
*      _|_
*      ///
*
*
.OPTIONS  GMIN=1e-15 METHOD=gear ABSTOL=1e-15 temp=27
VIN       IN   0     DC   0V     AC    1V
R1        IN   OUT   1k
C1        OUT  0     1u

.control
run
ac        dec      10       1        10khz
plot      db(v(out))  ylimit -3 0    title   Find_R_C_3dB

let n =   0
let f =   0
repeat    39
let n =   n+1
if        ( db( out[n]) >-3)
let f =   mag(frequency[n])
endif
endrepeat
echo      "3dB point = $&f Hz"
.endc

.end
```

==========END_OF_SPICE==========

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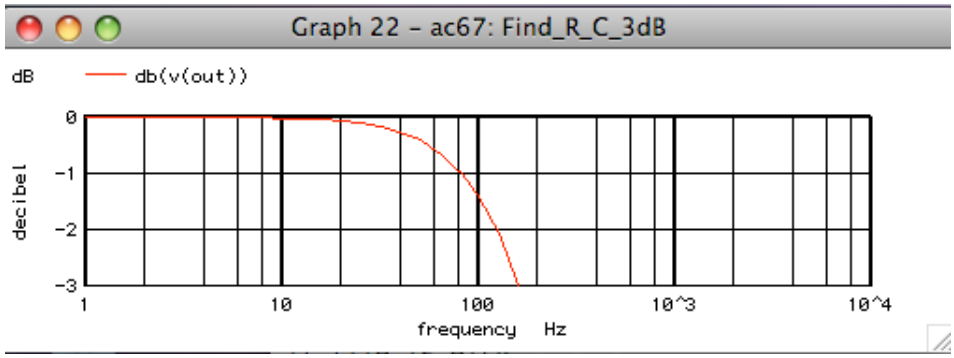
Circuit: RC_3dB

3dB point = 158.489 Hz
MacSpice 25 ->