

# Re: Transistors

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*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-11/msg02928.html>

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- *From:* Winfield Hill <[hill@xxxxxxxxxxx](mailto:hill@xxxxxxxxxxx)>
  - *Date:* Mon, 19 Nov 2007 09:54:43 -0800 (PST)
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On Nov 19, 11:58 am, Jan Panteltje <[pNaonStpealm...@xxxxxxxxx](mailto:pNaonStpealm...@xxxxxxxxx)> wrote:

On a sunny day (Mon, 19 Nov 2007 08:42:09 -0800 (PST)) it happened Winfield Hill <[h...@xxxxxxxxxxx](mailto:h...@xxxxxxxxxxx)> wrote in  
<[869fdae0-823c-4d47-b987-bab35c0b9...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:869fdae0-823c-4d47-b987-bab35c0b9...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>:

This is with lower emitter io resistors:  
[ftp://panteltje.com/pub/amp1\\_ac2.jpg](ftp://panteltje.com/pub/amp1_ac2.jpg)

Small-signal spice tests (frequency sweeps) of power-amplifier circuits like that, at high-frequencies, are close to meaningless – useful for no-signal loop stability perhaps, but certainly not for evaluating how an amplifier can do at delivering power at high frequencies. You can try transient full-power tests with spice, but I'd want to verify the component models on the bench before giving it much credence. And of course, when the failure mode is thermal, and your spice model isn't set up to handle self-heating, well... What you can do with spice, after you've got models you can trust, is to evaluate the continuing emitter current in a class AB transistor after it's supposed to have gone