

# Re: JFET Common Source DC Amplifier Temperature Compensation

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*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-11/msg03194.html>

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- *From:* Jim Thompson <[To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx](mailto:To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx)>
  - *Date:* Tue, 20 Nov 2007 16:46:23 -0700
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On Tue, 20 Nov 2007 15:38:04 -0800, D from BC  
<[myrealaddress@xxxxxxxx](mailto:myrealaddress@xxxxxxxx)> wrote:

On Tue, 20 Nov 2007 15:30:40 -0700, Jim Thompson  
<[To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx](mailto:To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx)> wrote:

[snip]

Sort of like this...

<http://analog-innovations.com/SED/DfromBC-Bias.pdf>

Not dead-on, but close... exact solution is left as an exercise for  
the student ;-)

...Jim Thompson

Yup...I think that's where I'm headed..

Maybe call J2 a 'reference amp'. Where J2 is a reference circuit.  
Relative to J2 drift, compensate to maintain J1's bias point.  
Something like that... :P

Nice.. You did a temp sweep.

Heck...I don't even know if I can trust LT's JFET models and I haven't  
spotted yet if I can do a temp sweep in LTSpice.

Sure you can. Mikey did a good job with LTSpice.

Re: JFET Common Source DC Amplifier Temperature Compensation

I'd say 90% of circuits I've seen use Rs in JFET linear circuits.  
Without Rs...it's interesting to see the performance of the  
alternatives. :)

D from BC

If you're really trying to make a comparator rather than a linear  
amplifier, you might experiment with current source loads (hint, hint  
;-)

...Jim Thompson

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