

Re: Transistors

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-11/msg02601.html>

- *From:* Jim Thompson <To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxx>
 - *Date:* Sat, 17 Nov 2007 13:10:29 -0700
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On Sat, 17 Nov 2007 11:06:59 -0800, John Larkin
<jjlarkin@xx> wrote:

On Sat, 17 Nov 2007 18:40:25 GMT, Jan Panteltje
<pNaonStpealmtje@xxxxxxxx> wrote:

On a sunny day (Sat, 17 Nov 2007 09:15:55 -0800) it happened John Larkin
<jjlarkin@xx> wrote in
<b68uj3t6l5vcvdsa3sfmotelhg8tkac0s@xxxxxxx>:

On Sat, 17 Nov 2007 08:17:27 -0800 (PST), Winfield
<winfieldhill@xxxxxxxx> wrote:

On Nov 17, 8:16 am, Fred Bloggs wrote:

John Larkin wrote:

It's this one:

[...snip...]

Please refrain from linking
us to that really boring stuff.
I have told you time and
again that your work makes
me ill,
very boring pedestrian stuff.

and this is
almost
done,
except for

Re: Transistors

the idiotic
TI opamp
problems:

What's the problem with the
'TI opamp'? Tell us
something
interesting.

Yes, I seem to remember that was discussed
on
another thread, right John?

Yup. THS3062, practically a unique opamp, blinding fast
with ± 15
supplies. But if it's amplifying a sine wave at, say, 20 volts
p-p
out, and the frequency goes up to roughly 12 MHz, it
crashes, pulls
tons of power, gets red hot, and phase inverts! If you drop
the input
signal way down, it recovers!

Well, John!!!! the datasheet specifies input common mode range as $\pm 13.9V$
MAX.
Page 3 of ths3062.pdf.
It is a video amp :-)

We're running these at gains in the 3 to 5 range, and it does this
working inverting or non-inverting, loaded and unloaded, so it's not a
common-mode issue. And at 12 MHz, we're not even slewing a volt per
nanosecond yet.

It crashes and phase inverts in either config! It made a nasty blister
on me poor finger, it did! But the effect doesn't seem to be thermal,
in that freezing it hard doesn't affect the frequency trip threshold
much.

You'd think that TI would find something this exotic to be
interesting.

John

I note the 2nd Harmonic Distortion rises rapidly around 10–20MHz.

Re: Transistors

Probably an inadequately stabilized multi-loop that is amplitude dependent.

...Jim Thompson

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