Re: breadboarding fast, tiny stuff

Source: http://sci.tech−archive.net/Archive/sci.electronics.design/2008−03/msg00423.html

- *From*: Joerg <notthisjoergsch@xxxxxxxxxxxxxxxxxxxx>
- *Date*: Sun, 02 Mar 2008 16:53:59 −0800

JosephKK wrote:

> On Sat, 01 Mar 2008 21:22:26 −0800, John Larkin
> <jjlarkin@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:
>
> > On Sun, 02 Mar 2008 05:02:18 GMT, JosephKK
> > <quiettechblue@xxxxxxxxx>
> > wrote:
> >
> > > John Larkin wrote:
> > >
> > > > On Sat, 01 Mar 2008 18:58:28 GMT,
> > > > JosephKK <quiettechblue@xxxxxxxxx>
> > > > wrote:
> > > >
> > > > > John Larkin wrote:
> > > > >
> > > > > > We got
> > > > > > some
> > > > > > samples of
> > > > > > an NEC hj
> > > > > > fet and were
> > > > > > wondering
> > > > > > what its
> > > > > > time−domain
> > > > > > response
> > > > > > might be
> > > > > > like. The
> > > > > > part is only
> > > > > > 2x2 mm
> > > > > > and the
> > > > > > leads are
> > > > > > 1.2 mm
> > > > > > pitch, and I
> > > > > > hadn't
> > > > > > previously

had a lot of luck breadboarding stuff like this.

We found two tricks:

Get a piece of copperclad, epoxy−glass or preferably teflon; the teflon is easier to cut. Cut out "pads" with a very sharp xacto knife, under a Mantis magnifier. This will make horrible burrs and shorts, so the first trick is to scrub it really hard with a Scotchbrite pad between cuts. This cleans it up beautifully.

The second trick is to use small patches of kapton tape as insulators. like where parts join or

whatever. Soldering doesn't bother it at all.

ftp://66.117.156.8/FetTest.zip

Here, the fet is in a first−pass test circuit, just to see how fast we can turn it on and off. The TDR pulse from the sampling head is the gate drive, 0 (Idss) to −0.5 (pretty much off) at 50 ohms source z.

The drain is pulled up through a 47 ohm resistor, and the 150 ohm resistor off to the side is an "attenuator" into the other scope channel. The turnon fall is very clean, no nasty ringing or whatever, with a 190 ps fall time. Turnoff is

similar;
these things
don't store
charge! The
TDR of the
gate (lower
trace)
indicates
that the gate
capacitance
is loading
the drive, so
we need a
bigger gate
swing, from
a lower
source
impedance,
to make this
thing switch
really fast.
That
will be next.

John

Hell, you have a webpage to work with post gif's not zip's.

I'm offering free data and advice, and you're whining about the price.

And it's not a web page, it's an FTP site.

And my camera makes jpeg's, not gif's.

Did I leave anything out?

John

My complaint was not about the price but the usability. I can use jpeg and svg and png as well. Zips are problematic. Maybe a pdf or a tgz?

You can't unzip files? I zip a lot of stuff, because a lot of my

> customers have firewalls that don't let any interesting stuff in.
> Sometimes I have to send files to their gmail accounts, or zip it and
> rename it to .txt!
>
> John

> The actual issue is a hosed client the mishandles zips.

The zip format is widely used in industry. How else would you beam photo plotter files back and forth where a set easily consist of a dozen or more individual files?

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Regards, Joerg

http://www.analogconsultants.com/
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