

Re: Inductor arrangement for boosting low-voltage piezo drive

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2005-06/msg00547.html>

- *From:* "Don Baker" <n2mcg@xxxxxxxxxxx>
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I measured a CUI (www.cui.com) model CEP-1136 at 79db at 3.0 volts with a measured current of 7.7ma. I have this device in a medical instrument and have been very happy with the low voltage performance. I have used phase synchronized sine waves, 180 out of phase, to drive these devices when higher voltage was required. It is not elegant but does the job.

Don

"Clifford Heath" <no@xxxxxxxxxxxxxxxx> wrote in message
[news:42a15704\\$0\\$5744\\$afc38c87@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:42a15704$0$5744$afc38c87@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

> Robert Baer wrote:

>> There are piezo sounders that only need a voltage across them to make
>> a lowd sound. Is there a reason to re-invent that wheel?

>

> I can't find one at a low price that will make a loud sound at 3V,
> is all. The self-drive and internal-circuit type don't use any
> voltage booster AFAIK, so aren't louder than my direct push-pull
> drive. I don't need 80dbA, as the person is only 2' away. I don't
> want to scare them witless - but there must be no mistake about what
> they've heard despite noise and poor hearing. Push-pull gives 6V P-P
> and is almost passable, I just figure that the boost inductors might
> give me 12V P-P. Guess I'll have to try it.

>

> Boris Mohar wrote:

>> Drive an RS232 chip...

>

> I've done that with 40KHz sonar, but I'm worried that the quiescent
> current will get me. The device must last for the shelf life of the
> 2 AA batteries, as it's sealed and will likely be replaced when the
> batteries fail. I was actually going to go with a CR2430 or similar
> lithium battery, before it was pointed out that it needs an LED to
> back up the beeper. What's the lowest quiescent current you can get
> in a 3V RS232 driver chip?

>

> Rich Grise wrote:

>> I vote for a Sonalert. :-)

>

> The only Sonalert that will produce 80db at 3V (the SC307N) is \$19,

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- > more than my entire BOM cost :-).
- >
- > Roger Lascelles wrote:
- >> If it is a bare brass plate...
- >
- > It's a little ABS resonator case with the brass plate inside.
- >
- > Clifford Heath.

• *Follow-Ups:*

- ◆ **[Re: Inductor arrangement for boosting low-voltage piezo drive](#)**
 ◇ From: Clifford Heath

• *References:*

- ◆ **[Inductor arrangement for boosting low-voltage piezo drive](#)**
 ◇ From: Clifford Heath
- ◆ **[Re: Inductor arrangement for boosting low-voltage piezo drive](#)**
 ◇ From: Robert Baer
- ◆ **[Re: Inductor arrangement for boosting low-voltage piezo drive](#)**
 ◇ From: Rich Grise
- ◆ **[Re: Inductor arrangement for boosting low-voltage piezo drive](#)**
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