

Re: Bandgap Design

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- *From:* Tim Hubberstey <bogus@xxxxxxxxxxxxxx>
 - *Date:* Wed, 30 Mar 2005 19:32:16 GMT
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James Arthur wrote:

Tim Hubberstey wrote:

I used the US site, not the main Japanese site. I found it mildly annoying, but not enough so to scrounge up another site, especially since I'd already gone through a few other sites and found no data at all.

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<http://www.stanley-components.com/en/search/search_top.cfm>

I don't remember which devices I looked at, I just used the search tool to pull up devices of the specified colors and chose the first clear package in the list. Acrobat reader 5.1 had no trouble displaying the sheets, except for the usual squawk about missing Asian fonts. Most likely, most of the data came from the sheet for the 38_3X series. I didn't check the semiconductor type since I was only interested in $d(V_f)/dT$. The $d(V_f)/dT$ info came from the graph(s) a few pages into each data sheet. I used the 1 mA line for all devices and calculated $d(V_f)/dT$ from 2 points, usually -40C and +60C as this was easiest.

Re: Bandgap Design

Thanks. The UB5306X datasheet pg. 7 reveals all: I get the same result ($\sim -3\text{mV}/\text{C}$) over the same temperature range as you did (-40C to $+60\text{C}$), but note that the slope is about $-4\text{mV}/\text{C}$ below -5C , and about $-2\text{mV}/\text{C}$ from roughly $+20\text{C}$ & higher. (This part is InGaN.)

Interesting! The 38_3X series I looked at doesn't display the same non-linearity in TC even though it is also InGaN.

Windows being what it is -- delicate -- I distain installing new applications where possible. Here though, I took the opportunity to load the latest FireFox browser and a later version of Acrobat Reader, whereupon I was better able to load and read Stanley's documents. I do wish, however, that webfolks as a group would ease up on the bandwidth, and hang on to all those pretty pictures and nifty scripts. Please webweenies, just give me the facts.

Hear, hear! Unfortunately, "adding chrome" seems to be an industry-wide illness. This is why I'm still using Acro reader 5.1 instead of the latest version. I found that the newer versions had too many gewgaws that got in the way of the REAL function -- displaying documents.

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