

# Re: BJT transistor beta, vs Ebers–Moll, Gummel–Poon, and the other tools God has given US

**Source:** <http://sci.tech–archive.net/Archive/sci.electronics.design/2004–12/1385.html>

---

**From:** Jim Thompson (*thegreatone\_at\_example.com*)

**Date:** 12/07/04

Date: Mon, 06 Dec 2004 22:10:06 -0700

On 6 Dec 2004 18:44:49 -0800, Winfield Hill  
<hill\_a@t\_rowland–dotties–harvard–dot.s–edu> wrote:

>*Jim Thompson wrote...*  
>>  
>> *Sorry to burst your bubble, but gm (for a BJT) is only*  
>> *a function of current, and NOT the size of the device.*  
>  
> *Right, assuming Is is constant across the devices...*  
> *(Someone always has to play the devil's advocate).*

And WHERE is it that IS figures into gm ???

...Jim Thompson

```
--
| James E.Thompson, P.E.                | mens |
| Analog Innovations, Inc.              | et   |
| Analog/Mixed-Signal ASIC's and Discrete Systems | manus |
| Phoenix, Arizona                      |      | Voice:(480)460-2350
| E-mail Address at Website              |      | Fax:(480)460-2142
| http://www.analog-innovations.com |      | Brass Rat
|                                         |      | 1962
|                                         |      |
```

I love to cook with wine. Sometimes I even put it in the food.