

Re: Schottky effect questions

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- *From:* Paul <energymover@xxxxxxxxxx>
 - *Date:* Fri, 15 Feb 2008 06:39:08 -0800 (PST)
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On Feb 14, 4:47 pm, Paul <energymo...@xxxxxxxxxx> wrote:

Hi,

Perhaps I don't understand Schottky effect so well. Must the metal be a certain thickness? The following page shows some Schottky diode history, which starts with the Cat's Whisker. Must the metal wire (Cat's Whisker) that contacts the semiconductor be so thin? May I ask why it must be thin? Then there's the point contact Schottky diode that appears to have a thinly deposited metal. Perhaps the diode would work if the deposited metal was [not] very thick, but wouldn't it at least still rectify to some degree?

http://www.radio-electronics.com/info/data/semicond/schottky_diode/sc...

One last question. Would the Schottky effect work if the metal was say, Boron, which has extremely high resistance, $\sim 1e+12$ times higher than copper?

Thanks for any help,
Paul

Sorry, one of the questions should have been, "Perhaps the diode would work if the deposited metal was **not** very thick, but wouldn't it at least still rectify to some degree?"

Paul

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