

Re: CMOS DRAM chips and static

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- *From:* "Michael A. Terrell" <mike.terrell@xxxxxxxxxxxxxx>
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bz wrote:

Eeyore <rabbitsfriendsandrelations@xxxxxxxxxxxxxx> wrote in news:483609C5.800054E9@xxxxxxxxxxxxxx:

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Eeyore <rabbitsfriendsandrelations@xxxxxxxxxxxxxx> wrote

Aluminium foil is a BAD idea. In the event that there is any appreciable charge on a given pin, pushing it into aluminium foil will discharge it *quickly* and the resulting current may kill it.

It is NOT the current that kills CMOS, it is high VOLTAGE that punches holes in the insulating layers inside the chip. [I am not aware of ANY chip families where tiny CURRENTS would be a hazard].

These are two different things.

Yes.

Those 'tiny' currents can be quite large when discharging a significant charge.

Re: CMOS DRAM chips and static

Yes, but you can not 'have a significant charge' on a chip without having a high voltage differential between the chip and the conductor! There are not enough charge carriers to produce a high current from the small internal capacitances of the cmos chip itself. If you have enough of a differential between leads on the chip to cause a high current, then you have already lost the chip due to the high voltage.

Enought to damage the chip's
internals through overcurrent.

NO! The danger to cmos from static electricity is not due to over-current, it is due to high voltage differential between high impedance gates and the base substrate of the cmos chip.

The voltage punches a hole in the insulating oxide layer.

TTL chips and the gated devices in ICs can be damaged by excess current but that current is f