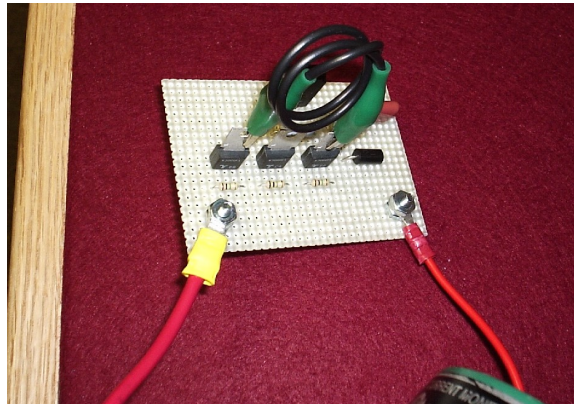
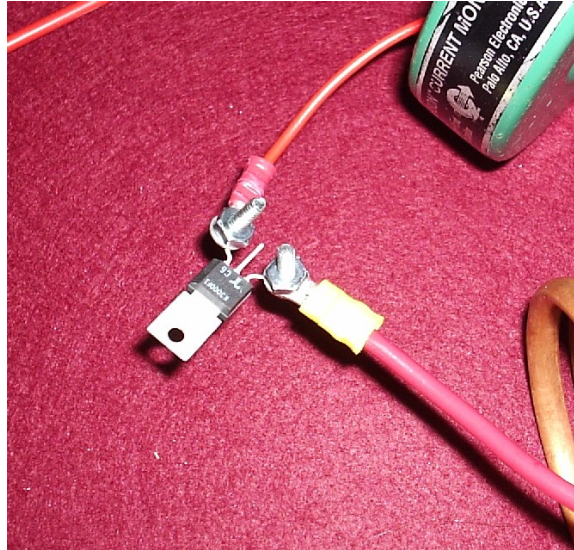


SIDAC High Current Test

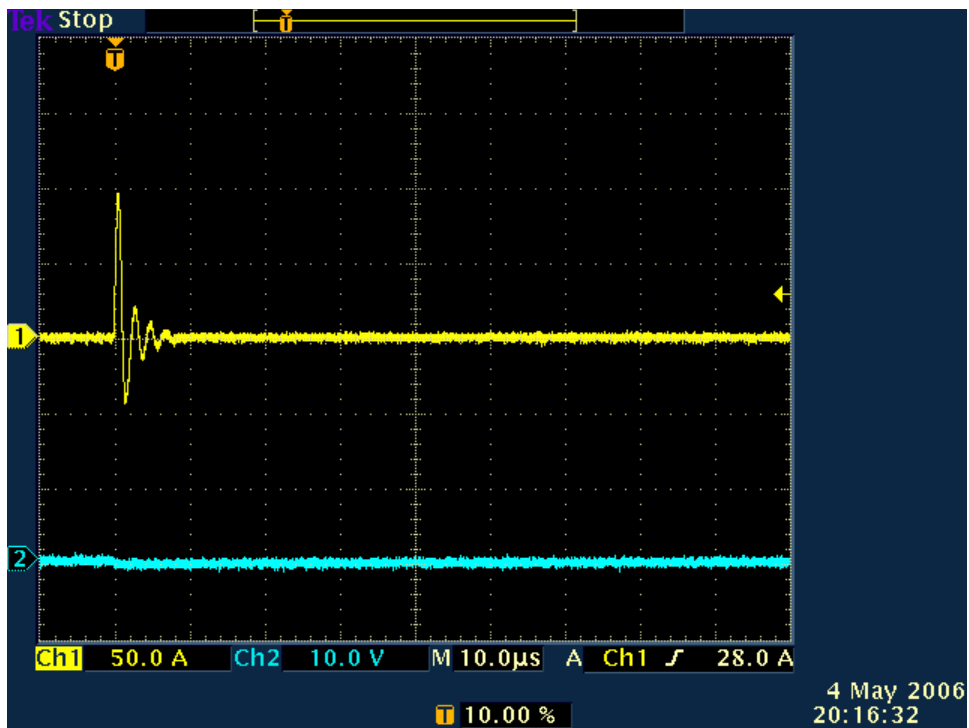
Terry Fritz

May 4, 2006

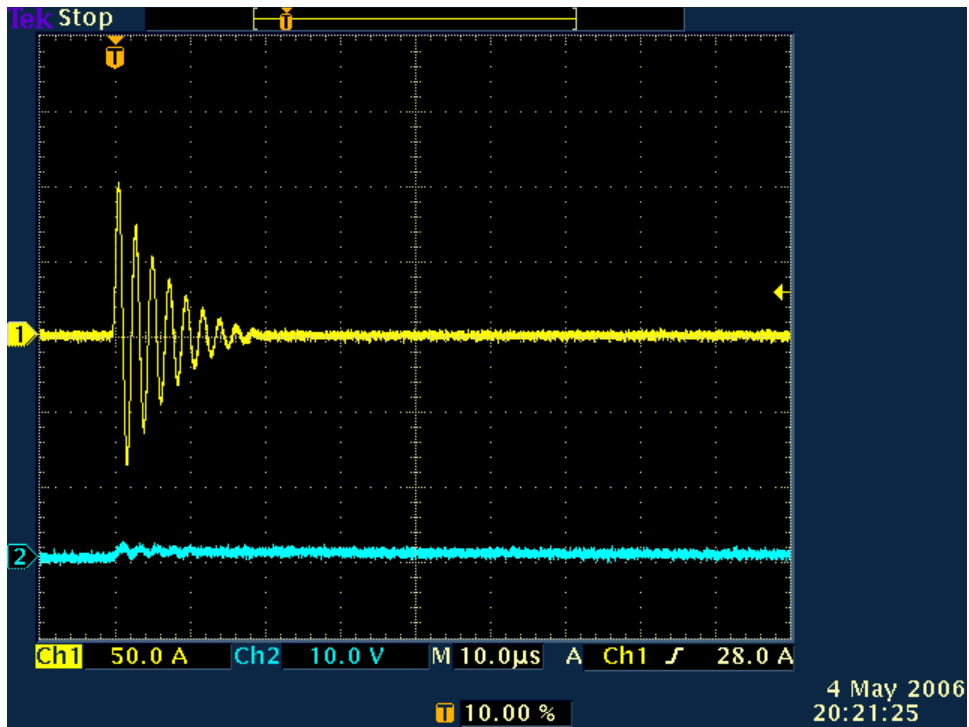
I compared the performance of a bare SIDAC to the new SIDAC / IGBT gap.



At high currents (200A) the bare SIDAC is very lossy! Infact, it is really only good for the first cycle and then it seems to go very resistive. Here are scope captures showing the effect.

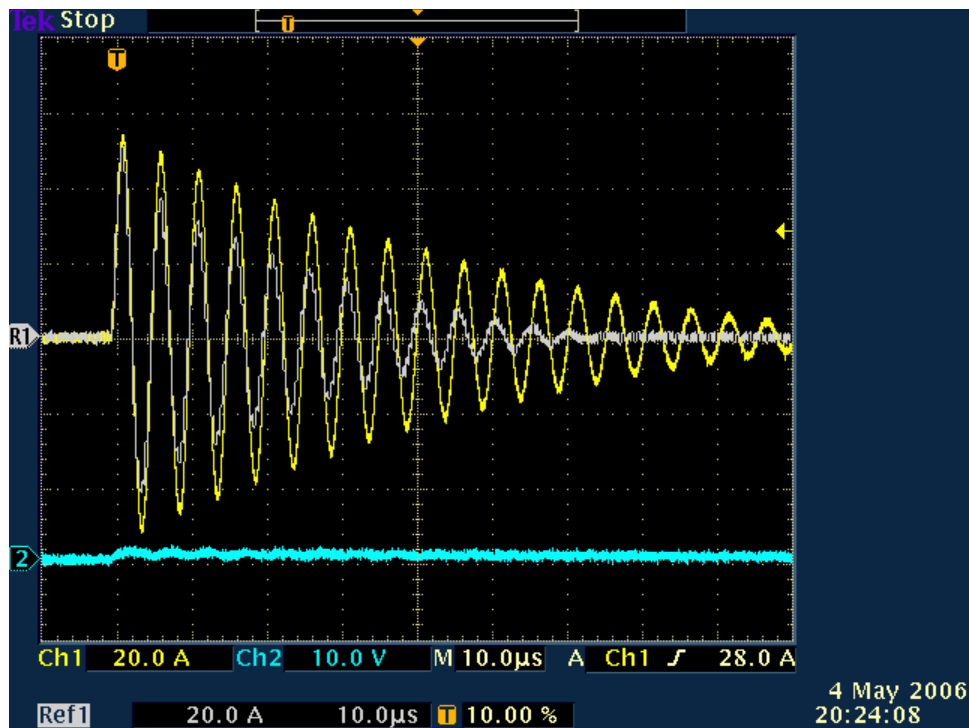


Bare SIDAC at high current.



SIDAC / IGBT spark gap.

Even at lower currents (56A) there is a substantial difference in loss.



The SIDAC / IGBT gap is shown in yellow and the bare SIDAC is shown in white. Note how the SIDAC / IGBT gap has a much longer ring down!

Although the bare SIDAC does well on the first cycle, it becomes very lossy after that.