

---

Subject: Re: this makes an interesting assumption...  
Posted by [PakProtector](#) on Sun, 04 Dec 2005 10:57:55 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Not really. At least not for the general performance of choke v. resistor. Clearly core material effects some of the important characteristics in question, but the AC nature of grid current is the basic topic. Dealing with grid charge accumulation, and its AC and DC nature was the premise of my last note. The general suggestion for a valve with a low grid circuit resistance spec has usually been, "use a choke". How big a choke, in terms of L and DCR has not been discussed or quantified to my satisfaction, for my application. I am preparing to do some measurement on my custom grid choke capacitance. It is not that difficult, and I am quite surprised it is not a generally published spec. The number is probably embarrassing....considering what the general perceived 'good' numbers are! We'll just have to see! I have a few examples and I'll publish the origin of acquisition as well as manufacturer when I get my own C-core specials from Heyboer to compare to. Look at the RCA data sheet for the 2A3. Or for that matter the 1619 or the 813. All specify a low value of grid circuit resistance. My theory is that the reason for having low grid circuit impedance is almost the same. Clearly the way in which the grid circuit deals with charge accumulation is important. The AC nature of the charge build up has led me to believe that a high impedance grid choke is going to have the same effect as a big resistor. It isn't an absolute, but with a few big grid chokes to play with, I was able to collect some data which supported the theory. So, the recommendation to design for just the inductance the previous stage will stand, along with the grid circuit in question. I am moving up the scale with bigger power valves. For the 813 we'll see how the experiments go. How much inductance they will stand, and which OPTx gets the nod for E-Linear modification. I am going to take better care of my lab notebook that is certain. cheers, Douglas