Subject: Re: Loadlines
Posted by Damir on Tue, 05 Sep 2006 13:09:38 GMT
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Hi, I`m back... Load lines - simplified:-the OP you chose (say, 200V/50mA/-30V - with respect to max Ia and Pa values) "determines" your "optimal" load (yes, this is your primary impedance - simplified). The AC current can "swing" from quiescent value (Iaq=50mA) to the double value, max. 100mA, and from "quiescent" Ug value (-30V from Ua/Ia/Ug diagram for 6EM7-2) to the Ug=0V, max. peak in class A1.-draw the line through our "O" point (200V/50mA/-30V) and through another point, "A" (Ia=100mA, Ug=0V, and we read Ua=63V)-point "B" can be another "extreme", (about 292V/16mA/-60V)-our Ra, or primary load is (from Ohm`s Law) Ra=Ua/Ia, or "voltage swing" divided with "current swing", or:Ra = (UaB - UaA) / (IaB - IaA) = (292-63)/(0,1-0,016) = 2,7 kOhms-of course, you can just "extend" your line to the apsis and ordinate, to simplify Ra graphical finding, where Ia=0 and Ua=0, and you haveRa = 335/0,125 = 2k7-there`s a more, we want a symmetrical swing "around" your "O" point (min. distortion)...more horizontal LL is closer to this goal (increasing of the "minimal" Ra=2k7) on the less power "expense"-for more, see this two messages:http://audioroundtable.com/GroupBuild/messages/1111.htmlhttp://audioroundtable.com/GroupBuild/messages/1113.html