
Subject: Re: Silver Lining

Posted by [Damir](#) on Wed, 16 Feb 2005 18:10:20 GMT

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I must say that I like "overdimensioned" PTs, "Guinevere" PT is maybe more suitable for monobloc SE 2A3 amp (400V taps into LCLC gives about 310V - OK for the "classic" OP: 250V/-45V/60mA + CCS or choke loaded driver). But, if we use another OP, say 300V/50mA/-59V, then we can (probably) make it. But, driver needs some current, and about 400V B+... Anyway, let's see: $R_a = (4,2 \cdot 59) / 0,05 - 800 = 4156 \text{ Ohms}$, let's say "standard" 4k, then: $U_a = (\mu \cdot U_{gk}) / (1 + r_p / R_a) = 146 \text{ Vrms}$, and: $P_a = U_a^2 / R_a = 5,3 \text{ W}$ Available current swing give us the power: $P_a = I_a^2 \cdot R_a = 5 \text{ W}$ And $R_{aa} = 2R_a = 8k$, $P_{aa} = 10 \text{ W}$ - losses are about 10-15%, and we can expect max. power $P_{out} \sim 8,5 \text{ W}$. If we use higher, more "relaxed" load $R_{aa} = 10k$ (lower distortion, higher DF, but lower power), we can expect about $P_a = 9,1 \text{ W}$, and $P_{out} \sim 7,7 \text{ W}$. Not bad (theoretically)?
