Subject: Power transformer for DRD amp
Posted by Forty2wo on Wed, 01 Jun 2005 02:48:30 GMT
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I have been side tracked, with all of the nice spring weather we have had here in Pa.The DRD as Jack Elliano shows it calls for 700V B+. It can be as low as about 550V and still have room to direct couple, so that is something to keep in mind.To get 700V With a standard full wave rectfier will require about 1100VAC ! 550-0-550. This is doable especially if we use damper diodes but it means haveing a custom transformer made.On the other hand, If we use a full wave bridge, solid state or hybred. We can get the necessary voltage with a standard 750V (375-0-375), 800V (400-0-400) and a choke input filter. I am kind of likeing this idea as these transformers are pretty thick on the ground, from the likes of Hammond, One Electron, Angela and just about everyone else. You might have a pair in stock, or can be recycled from an old project. (I know I do)The next consideration is what we need for filaments. First off for this amp I am going to uas DC, or some sort of current reg for the 300b. The best I have been able to get with AC is about 5-6mv of noise. not too bad but I want better. This means at least one secondary at ~1.5A,6.3VAC , maybe more.

Subject: Re: Power transformer for DRD amp
Posted by Damir on Fri, 03 Jun 2005 18:24:52 GMT
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Using "normal", lower voltage and ready available PT is a good thing... especially when you (me, in fact must wait custom PT for months. IMO - hibrid bridge PS is a good idea, with small value input cap (say

Subject: Almost forgot...
Posted by Damir on Sat, 04 Jun 2005 04:26:55 GMT
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If you`ll use 800V transformer, you`ll need (at least) 1200V diodes and first cap (Utr*1,4142).Lot of simulations are in order first, I think

Subject: PIV
Posted by PakProtector on Sat, 04 Jun 2005 12:15:28 GMT
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Hey-Hey!!!,One of the neat things about the Si + Vacuum diode bridge is that the Si diodes increase PIV as you put them in series. So two SF4007(the fast/soft recovery version of the 1N4007)get you a 2kV inverse voltage rating at 1A.Two damper diodes, 6AX4 for example for the

forward facing/positive voltage at the cathodes pair will do the trick nicely. The direct coupled DH amp will put the filament winding at considerable voltage, use caution when selecting the TX for this job. Most do have adequate ratings.To the PSUD simulator!regards,Douglas

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Subject: Thanks for the input
Posted by Forty2wo on Sun, 05 Jun 2005 01:45:10 GMT
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Yea, must beware of the 1000v "wall". I am looking at a copule of transformers that will allow some flexibility as to output voltage. I would like to keep the number of transformers to a minimim. This has to fit on a cake pan after all I am going to breadboard with some 1200v fast ss diodes I have on hand and see were that takes me. The damper diode filiments are current hogs and need 6.3v. there do not seem to be many 5v recifers that can take 1000+ PIV, there's GZ37 but a bit spendyMight be time to try running 6.3v tubes at 5v.Pardon the spelling and grammar, a long few days...John

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Subject: Wall Drug
Posted by PakProtector on Sun, 05 Jun 2005 10:34:56 GMT
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with silicon PN junction diodes, putting them in series gives you a PIV which is the sum of the individual PIV's. SiC is not the same,regards,Dogulashope you got some sleep

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