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Subject: Heater PS schematic

Posted by [Damir](#) on Wed, 02 Feb 2005 21:06:05 GMT

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Here`s the Doug`s (passive) RCRC version. Probably needs some "tweaking" with real trafo values, in my program/simulations both R must be 2,7 Ohms and both C about 10000uF to get 12V on the 450mA load ?!Heater - pins 4 & 5. Diodes of your choice:-), probably the best some Schottky (40V or more, 1A or more). C1&C2 voltage 25V or more.

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Subject: Re: Heater PS schematic

Posted by [Manualblock](#) on Wed, 02 Feb 2005 21:12:00 GMT

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Thanks Damir; what are you up to lately?

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Subject: Re: Heater PS schematic some more

Posted by [Damir](#) on Wed, 02 Feb 2005 21:14:09 GMT

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Here`s the "alternative", regulated versions, pretty common. See "ordinary", not CT transformer and Graetz bridge of your choice (probably the best - Schottky). Regulator(s) need some heat sinks. Also, two version of grounding, one simple - negative pole to common star ground, and other "symetric", center tap is grounded (2\*100 Ohms resistors) - preferable, but not really critical...

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Subject: Re: Heater PS schematic

Posted by [Damir](#) on Wed, 02 Feb 2005 21:23:12 GMT

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You mean tubes, etc? Nothing concrete (soldering). Unfinished breadboarded projects, just theory... "Ra" formula...

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Subject: Different values than PSU simulation  
Posted by [colinhester](#) on Wed, 02 Feb 2005 21:31:12 GMT  
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Thanks for the picture. However, T sent a PSU file of this to me yesterday, and the resistor values were different. Your 5 ohm was given as 1 ohm, and the 3 ohm was a 2 ohm. Putting the above values (5 and 3) in PSU, I get a voltage across the load (tube's heater) of 8.5V. If, however, 2 and 1 ohm resistors are put in, the voltage across the tube's heater is right at 12.6V.

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Subject: Re: Different values than PSU simulation  
Posted by [Damir](#) on Wed, 02 Feb 2005 21:45:39 GMT  
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Just checked in "Circuit Maker", and get 14V with 1&2 Ohms, but I don't have the concrete trafo data (winding resistances), and 1&2 Ohms are probably OK, but I noticed little ripple, not presented in larger R / larger C version... However, those are little differences and can be tweaked in the "breadboarding" phase...

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Subject: Re: Different values than PSU simulation  
Posted by [colinhester](#) on Wed, 02 Feb 2005 22:11:30 GMT  
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There is a lot of ripple in the RCRC when compared to the choke load (LCRC.) Actually, it was pretty impressive what the choke did to flatten the voltage out. The 5 and 3 ohm values were what was stated in T's first post regarding the heater supply, so I know where they came from.....Colin

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Subject: they were a guess  
Posted by [PakProtector](#) on Wed, 02 Feb 2005 22:27:57 GMT  
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and then I got out the sim program from DuncanAmps. Glad you guys are taking this apart. One thing. taking a trip until Sunday, so I'm not ignoring youse, I am just away from my desk. Wish me luck. regards, Douglas

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Subject: Re: they were a guess  
Posted by [colinhester](#) on Wed, 02 Feb 2005 22:43:07 GMT  
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Oh, just wait until we get to the signal path. Have a nice trip.....Colin

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Subject: Re: Different values than PSU simulation  
Posted by [Manualblock](#) on Thu, 03 Feb 2005 01:04:07 GMT  
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Say Colin; If you have a chance in the next few days could you shoot that file my way? Thanks  
J.R.

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