Subject: Bias supply

Posted by PakProtector on Sat, 21 Jan 2006 12:30:22 GMT

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Hey-Hey!!!, The amp's requirements are for a negative rail capable of supporting front end current, and supplying fixed bias. Even with 2A3's we can get away with less than 100V negative. Good thing, since it is a convenient line in the component ratings. 100 PIV for diodes, and 100V caps. For the CCS in the front end, it is good to have at least 20V to dictate operation where the capacitances have stopped changing due to delta-voltage. Too much voltage requires troublesome heatsinks. The supply uses a 30VAC input to a voltage doubler. Two CRC stages, one full voltage, and the other from the midpoint and also dropped through the decoupling resistor. One could also terminate the two supplies with chokes. From Mouser, a 6.8, or 10 millihenry high current choke (J.W. Miller 5800 series, PN 542-5800-682 and -103). They're \$1.48 each. For the cap, a good film or film/foil unit. The ASC X387 of 7.5 or 10 uF from the bias pot wiper to ground will do nicely. The split-CT grid chokes need the two center ends AC coupled to ground anyway, and this cap is a very good choice there. More drawings to come...:)cheers, Douglas