

CHOICE OF POWER TUBES FOR THE EL34 « *Baby Huey* » AMPLIFIER

I have found the following image somewhere in a forum on internet and this is interesting because it give a quick comparison of several popular pentode and tetrode which can be used on the PCB !

	EL34	6550	KT88	KT90	KT120
					
ABSOLUTE MAXIMUM RATINGS					
Cathode-heater maximum DC voltage	+120 V	+250 V	+250 V	+250 V	+250 V
Allowable spot temperature on envel.	250 °C	250 °C	250 °C	250 °C	250 °C
Plate voltage, DC (at idle)	825 V	685 V	820 V	750 V	850 V
Plate voltage, DC, in triode connection	510 V	425 V	610 V	650 V	600 V
Screen voltage, DC, at idle	510V	425 V	610 V	650 V	600 V
Control grid voltage, DC, at idle	-120 V	-350 V	-350 V	-200 V	-200 V
Cathode current, DC, at idle	165 mA	180 mA	235 mA	230 mA	250 mA
Plate dissipation, peak or idle	26 W	36 W	44 W	50 W	60 W
Screen grid dissipation, peak or idle	8.5 W	7 W	10 W	8 W	8 W

Ökande katodström och effektagivning

Other vacuum tubes are not listed but could be also tested for lower power amplifier: 6V6, 6L6, KT66, KT77, 5881...

The maximum voltage recommended for the PCB is 400 V DC, mainly because electrolytic and polyester capacitors are specified at this voltage ! It may be possible to use 450 V or even 500 V capacitors to increase power but this has not been tested... I may design a new PCB later without power supply rectifier and filter to accommodate more powerful amplifier ?