

**Circuit Setup**

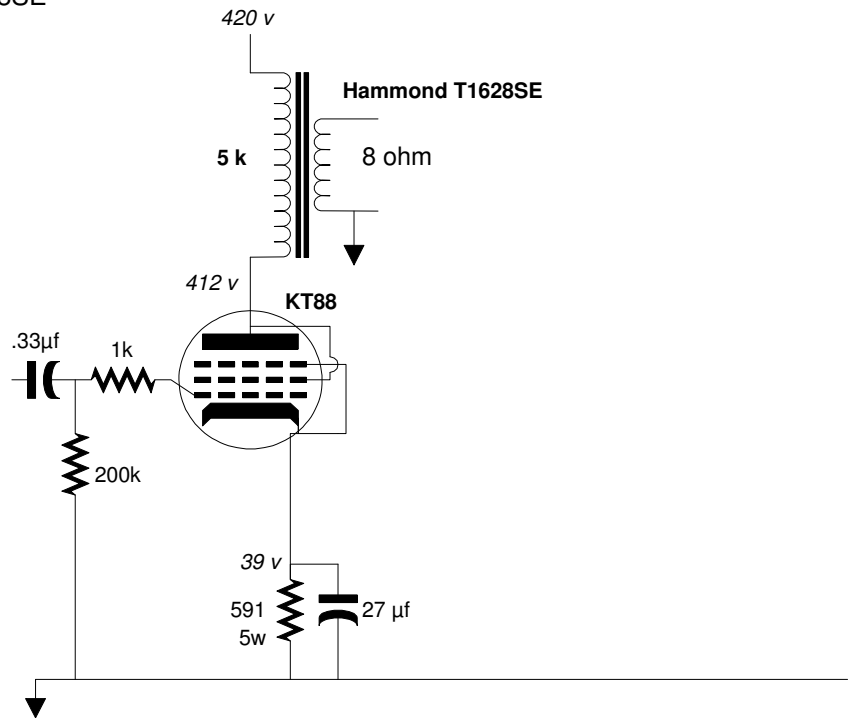
Output Tube Type	KT88 X 1
Output Transformer	Hammond T1628SE
Bias Method	Cathode
Plate Load Resistance	5.13 k
Plate Idle Current	66 mA
B+ Voltage	420 v
Peak Input Voltage	39 v
Tran. Primary Resistance	125 ohm

**Tube Data**

Amplification Factor ( $\mu$ )	7.19
Transconductance ( $G_p$ )	.82 mA/v
Transconductance ( $G_m$ )	5.9 mA/v
Plate Resistance ( $r_p$ )	1.22 k
Max Plate Voltage	450 v
Max Plate Current	175 mA
Max Plate Dissipation	40.0 W

**Transformer Data**

Heat Dissipation	557 mW
Winding Ratio	25.3 : 1
Winding Ratio I	640.63
Primary Inductance	26.5 H
Efficiency	91.9%



**Output Stage**

Plate Dissipation @ Idle	24.8 W
Average Plate Dissipation	19.9 W
Max Plate Dissipation Ratio	62%
Output Impedance	985 ohm
Gain	5.85
PSRR	-2 dB
Rectification	.75 mA
Slew Rate of Input	4.9 v/ $\mu$ s
Plate Efficiency	20%
Stage Efficiency	18%

**IV Dynamics: Rectification Effect Included**

$V_p$ Max = 574 v	$V_g$ Max = -78.2 v	$I_p$ Min = 27.3 mA
Delta = 202 v	Delta = 39 v	Delta = 39.4 mA
$V_p$ Avg = 372 v	$V_g$ Avg = -39.2 v	$I_p$ Avg = 66.8 mA
Delta = 255 v	Delta = 39 v	Delta = 49.7 mA
$V_p$ Min = 118 v	$V_g$ Min = -0.2 v	$I_p$ Max = 116 mA

**Cathode Resistor**

Resistor Value	591 ohm
Heat Dissipation	2.63 W
Bypass Capacitor Value	27 $\mu$ f

**Output Into Load**

Power (RMS)	4.97 W
Voltage (RMS)	6.31 v
Current (RMS)	788 mA
Output Impedance	2.04 ohm
Damping Factor	3.93
Distortion 2nd	5.8 %
2nd Harmonic In -Db	-24.8 dB
Distortion 3rd	0.2 %
3rd Harmonic In -Db	-54 dB

