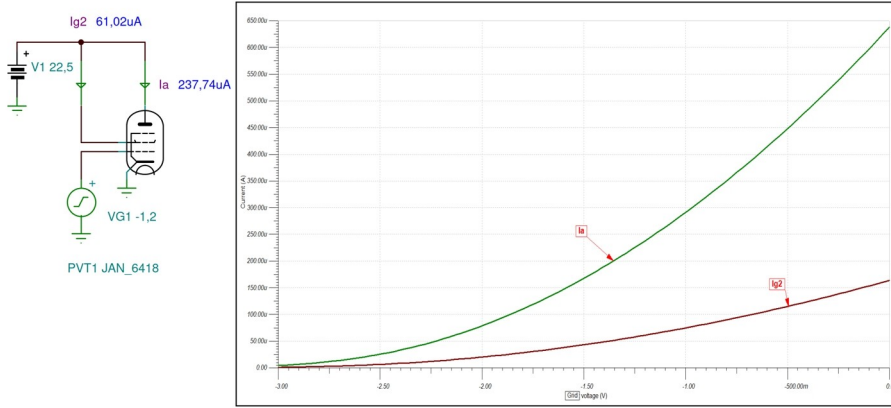
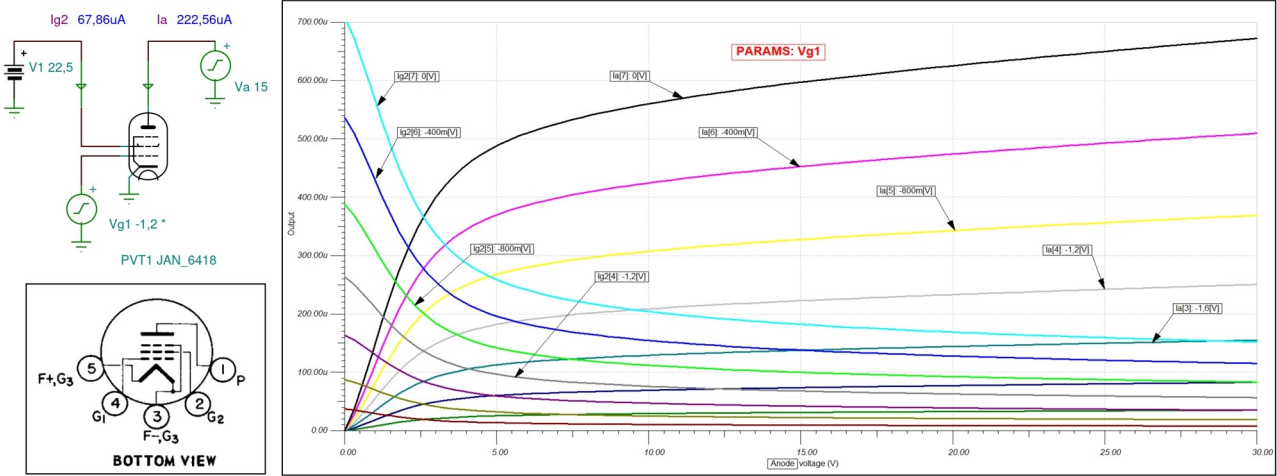


Raytheon JAN 6418 Vacuum Tube SPICE Macro Model

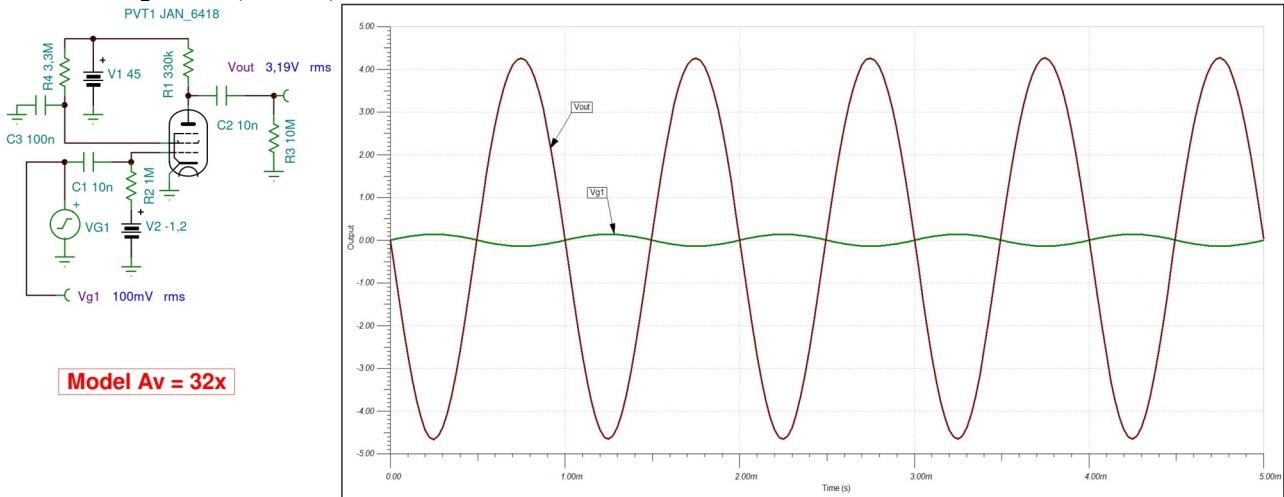
Transfer Characteristics



Output Characteristics

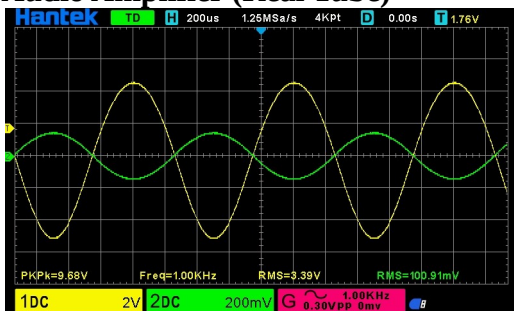


Audio Amplifier (Model)



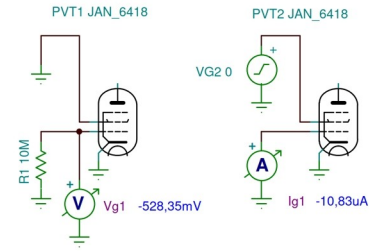
Model $A_v = 32x$

Audio Amplifier (Real Tube)



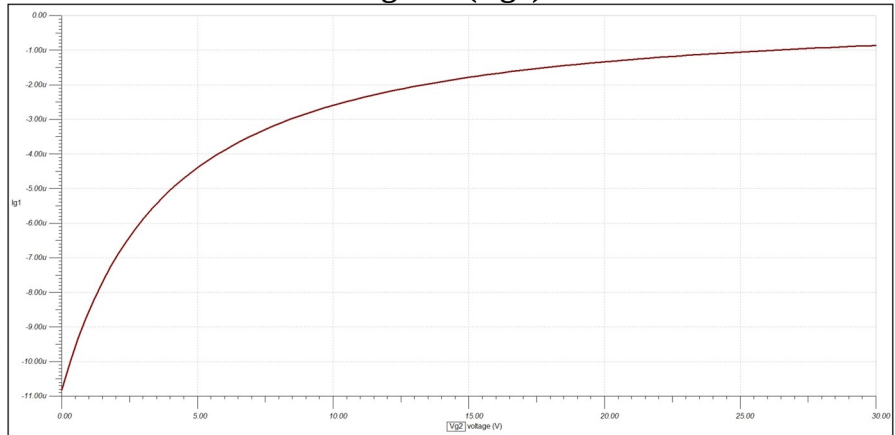
$A_v = 33.6x$
The model provides good accuracy for both DC operating points and AC gain.

Grid Diode Splash Current

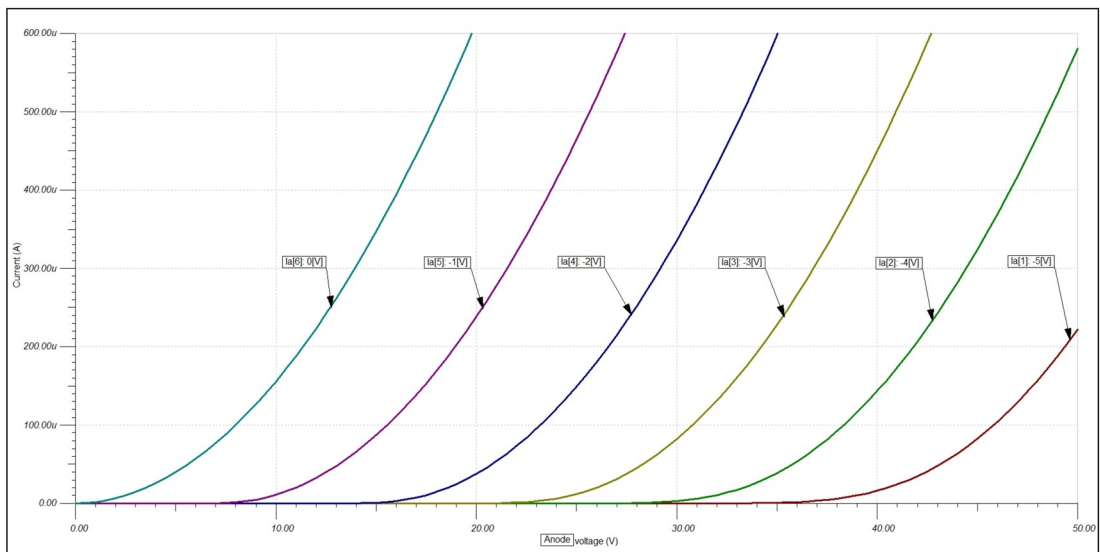
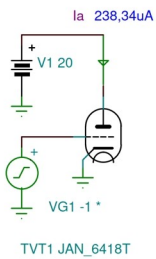


The gate current is not zero when the gate voltage is zero. A small gate current flows due to the energy distribution of the electrons emitted from the cathode.

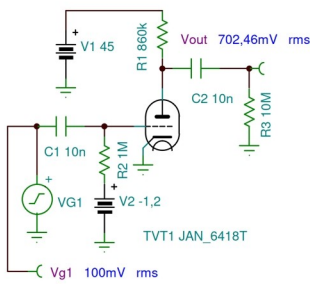
$$I_{g1} = f(V_{g2})$$



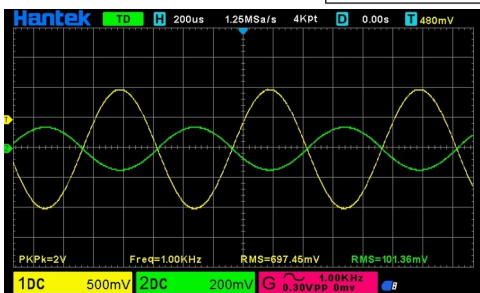
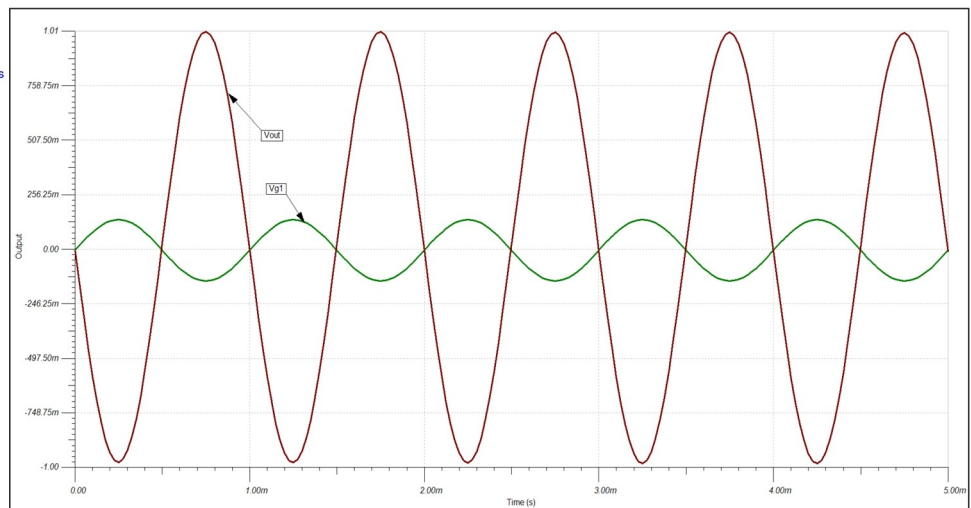
Triode Connected Pentode Output Characteristics



Audio Amplifier



Model $A_v = 7x$



Real Tube $A_v = 7x$
The triode model is highly accurate and produces less distortion than the pentode.