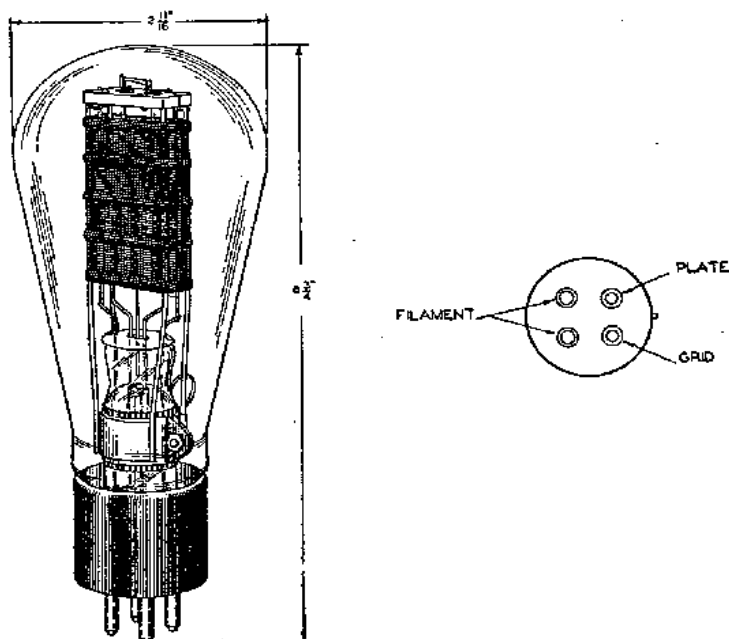


252A Vacuum Tube



Classification

The No. 252A Vacuum Tube is a three-element tube having a filamentary type of cathode. The tube is for use as an audio-frequency amplifier in output stages where moderate powers are required. It may also be used as an oscillator or modulator.

Base and Socket

The No. 252A Vacuum Tube employs a standard four-prong, thrust-type base suitable for use in a Western Electric No. 130B (rigid) or No. 131A (cushion) socket or similar type socket. The arrangement of electrode connections to the base terminals is shown above.

Rating and Characteristic Data

Filament Voltage.....	5 Volts, AC or DC
Average Filament Current.....	2 Amperes

For Fixed Grid Bias

Maximum Plate Voltage.....	450 Volts
Maximum Grid Bias.....	—65 Volts
Average Plate Current.....	43 Milliamperes
Average Plate Resistance.....	1,700 Ohms
Average Amplification Factor.....	5.0

For Self-Biasing Grid

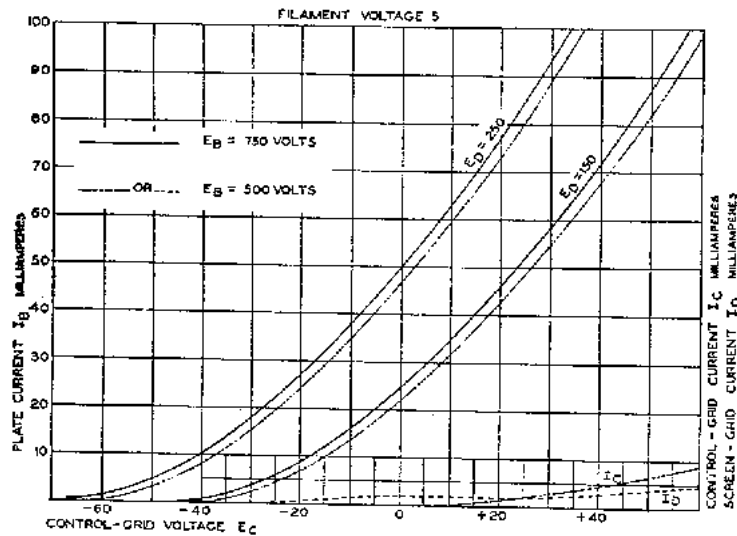
Maximum Plate Voltage.....	450 Volts
Maximum Grid Bias.....	—60 Volts
Average Plate Current.....	60 Milliamperes
Average Plate Resistance.....	1,500 Ohms
Average Amplification Factor.....	5.1

Approximate Direct Interelectrode Capacities

• Plate to Grid.....	12.0 MMF
Plate to Filament.....	4.0 MMF
Grid to Filament.....	6.5 MMF

Average Static Characteristics

The accompanying curves give the average static characteristics of the No. 254A Vacuum Tube. These curves are taken with the filament operating on alternating current with the plate, screen and control grid circuit returns connected to a midpoint of the filament transformer.



General Features

The No. 254A Vacuum Tube employs an extra grid or screen which provides an electrostatic shield between the plate and control grid. When the potential of the screen is held constant, variations of the plate potential have little effect upon the potential fields around the inner electrodes. Such internal shielding eliminates the necessity of neutralization to prevent unwanted oscillations or feedback if the rest of the circuit elements are properly shielded.

The thoriated tungsten filament of this tube is made in a spiral of such form as to maintain the tube internal impedance low and constant during its life. The mechanical structure has adequate strength for severe usages.