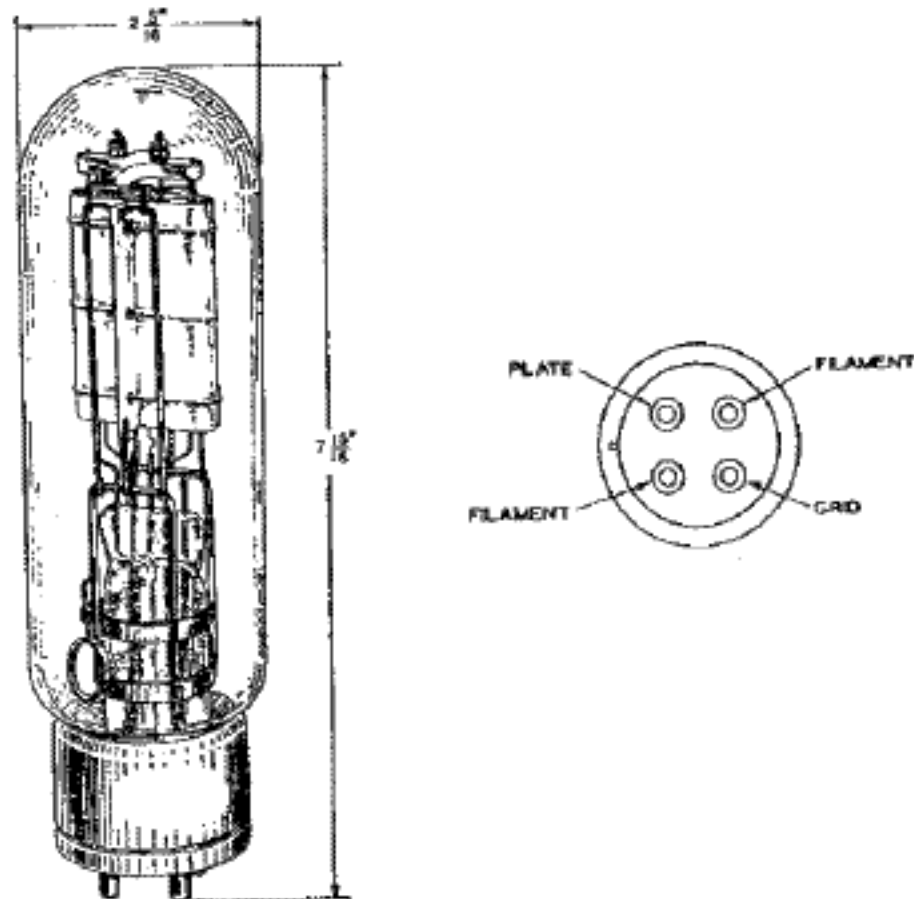


242A Vacuum Tube



Classification

The No. 242A Vacuum Tube is a three-element tube used as an oscillator, radio-frequency amplifier, modulator or audio-frequency amplifier.

Base and Socket

The No. 242A Vacuum Tube employs a standard four-prong, bayonet pin type base suitable for use in a Western Electric 112A socket or similar type socket. The arrangement of electrode connections to the base terminals is shown above.

Ratings and Characteristic Data

Filament Voltage.....	10 Volts
Nominal Filament Current.....	3.25 Amperes
Maximum Plate Voltage.....	1,250 Volts
Maximum Plate Current.....	0.150 Ampere
Average Plate Resistance.....	3,500 Ohms
Average Amplification Factor.....	12.5

Approximate Direct Interelectrode Capacities

Plate to Grid.....	18.0 MMF
Plate to Filament.....	4.0 MMF
Grid to Filament.....	6.5 MMF

Audio-Amplifier or Modulator Rating—Peak Grid Drive equal to or less than the Bias —Class A Service

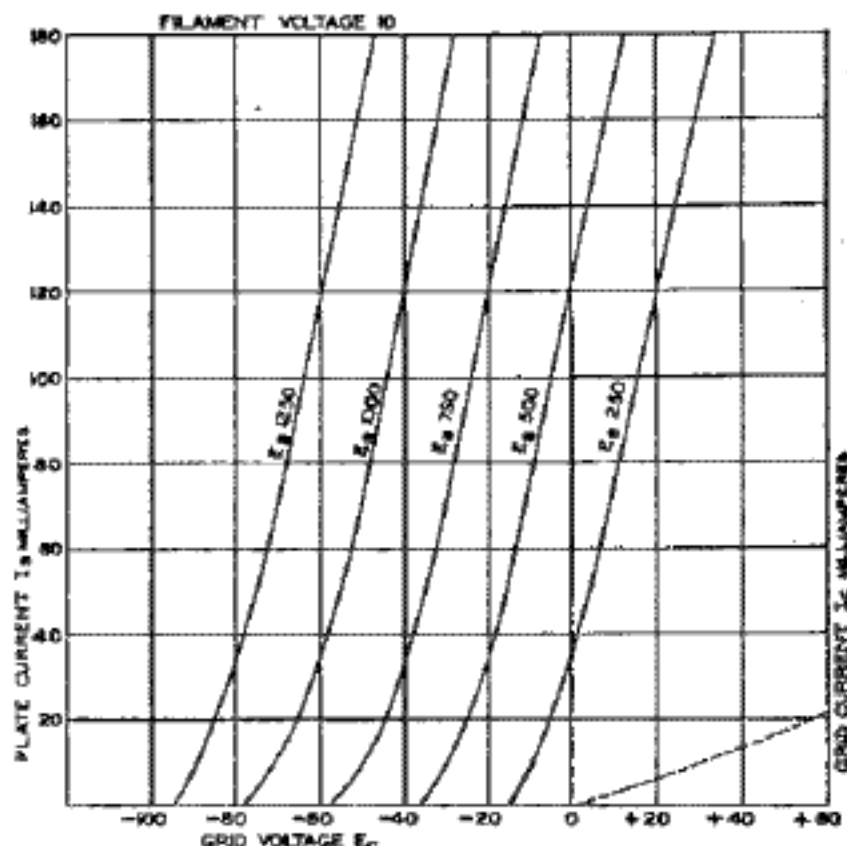
Maximum Plate Voltage.....	1000
Maximum Plate Current.....	0.85 Ampere
Maximum Plate Dissipation.....	85 Watts
Grid Bias Voltage.....	—50 Volts
Load Impedance.....	7,000 Ohms
Undistorted Output.....	10 Watts

Radio-Frequency Amplifier—Grid Bias practically at Cut-Off, Grid Drive higher than the Bias—Class B Service

Maximum Plate Voltage.....	1,250
Maximum Plate Current.....	0.150 Ampere
Maximum Plate Dissipation.....	100 Watts
Grid Bias Voltage.....	-100 Volts
Peak Output.....	125 Watts

Oscillator or Radio-Frequency Amplifier—Grid Bias below Cut-Off—Class C Service

Maximum Modulated Plate Voltage (DC).....	1,000 Volts
Maximum Non-modulated Plate Voltage (DC).....	1,250 Volts
Maximum Plate Current.....	0.150 Ampere
Maximum Plate Dissipation.....	100 Watts
Maximum Radio-Frequency Charging Current in Grid and Plate Leads.....	5 Amperes
Approximate Grid Bias.....	-150 Volts
Maximum Output.....	125 Watts



Average Static Characteristics

The accompanying curves give the average static characteristics of the No. 242A Vacuum Tube. These curves are taken with the filament operating on alternating current and with the plate and grid returns connected to a center point of the filament transformer.

General Features

The No. 242A Vacuum Tube has an unusually rugged type of structure which insures against breakage in shipment and in service and makes possible the maintenance of uniform electrical characteristics.

The manufacturing process control, long aging together with an adequate thoriated tungsten filament, insure this tube of electrical stability and extremely long life when operated under rated conditions.