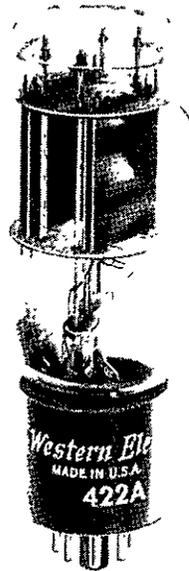

ELECTRON TUBE DATA SHEET
WESTERN ELECTRIC 422A ELECTRON TUBE



DESCRIPTION

The 422A is a double diode with indirectly heated cathodes. It is used as a full wave rectifier to supply direct current from an alternating current source.

CHARACTERISTICS

Heater Voltage - - - - - 5 volts
Maximum Peak Inverse Voltage - - - - - 1800 volts
Maximum D-C Output Current - - - - - 400 milliamperes

GENERAL CHARACTERISTICS

ELECTRICAL DATA

Heater Voltage	-----	5 volts
Heater Current	-----	3 amperes

MECHANICAL DATA

Cathode	-----	Coated unipotential
Bulb	-----	ST16
Base	-----	Medium Shell Octal
Mounting Position	-----	Any

Dimensions and pin connections shown in outlined drawing on page 4.

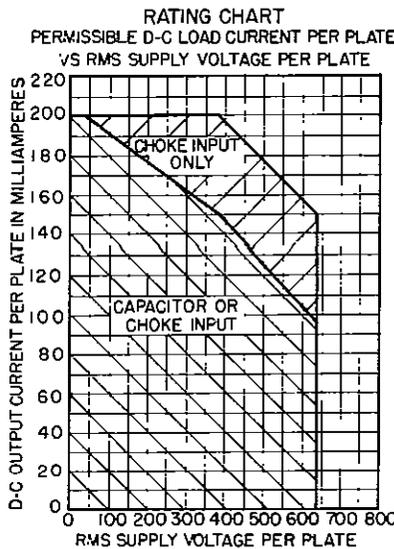
RATINGS, Design-Center Values

Maximum Peak Inverse Voltage	-----	1800 volts
Maximum Steady State Peak Plate Current per Plate	-----	0.9 ampere
Maximum Transient Peak Plate Current per Plate	-----	4 amperes
Maximum A-C Plate Supply Voltage per Plate	-----	See rating chart
Maximum Steady State D-C Output Current per Plate	-----	See rating chart
Minimum Effective Plate Supply Impedance per Plate	-----	100 ohms
Tube Voltage Drop (at 300 milliamperes per plate)	-----	26 volts
Maximum Bulb Temperature ¹	-----	150 centigrade

TYPICAL OPERATING CONDITIONS

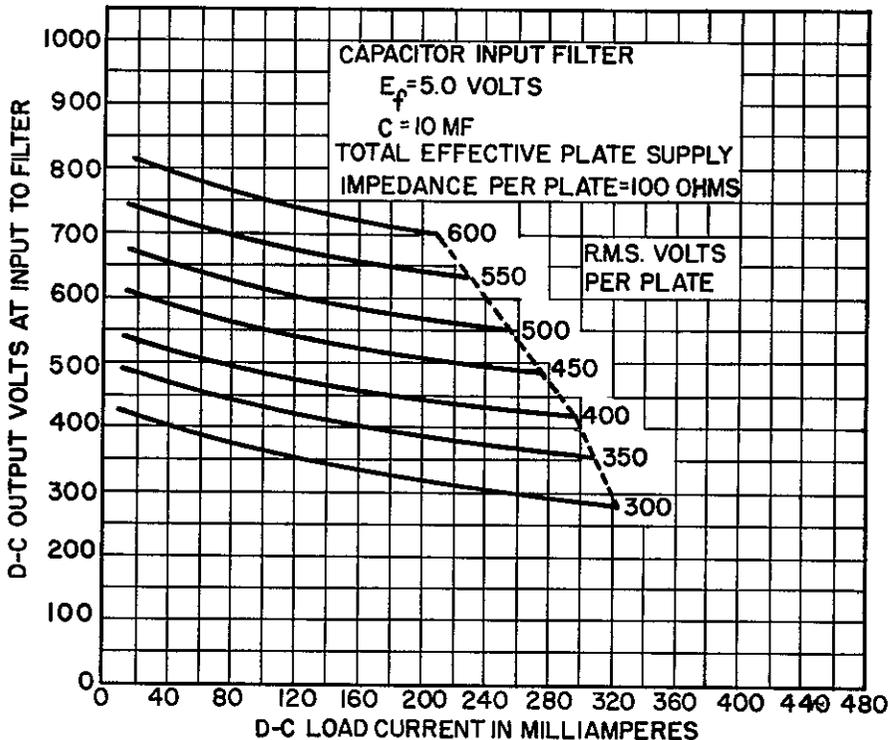
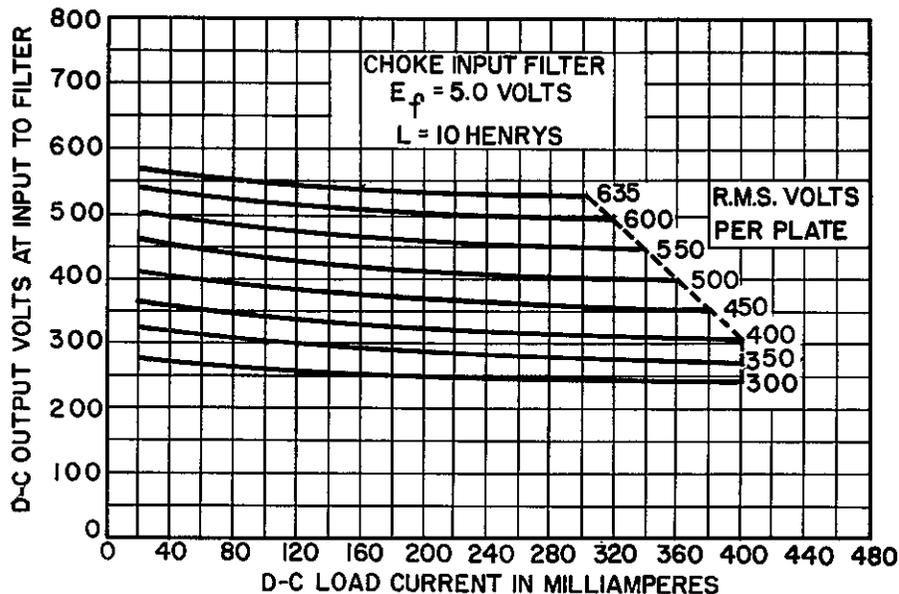
Full Wave Rectifier

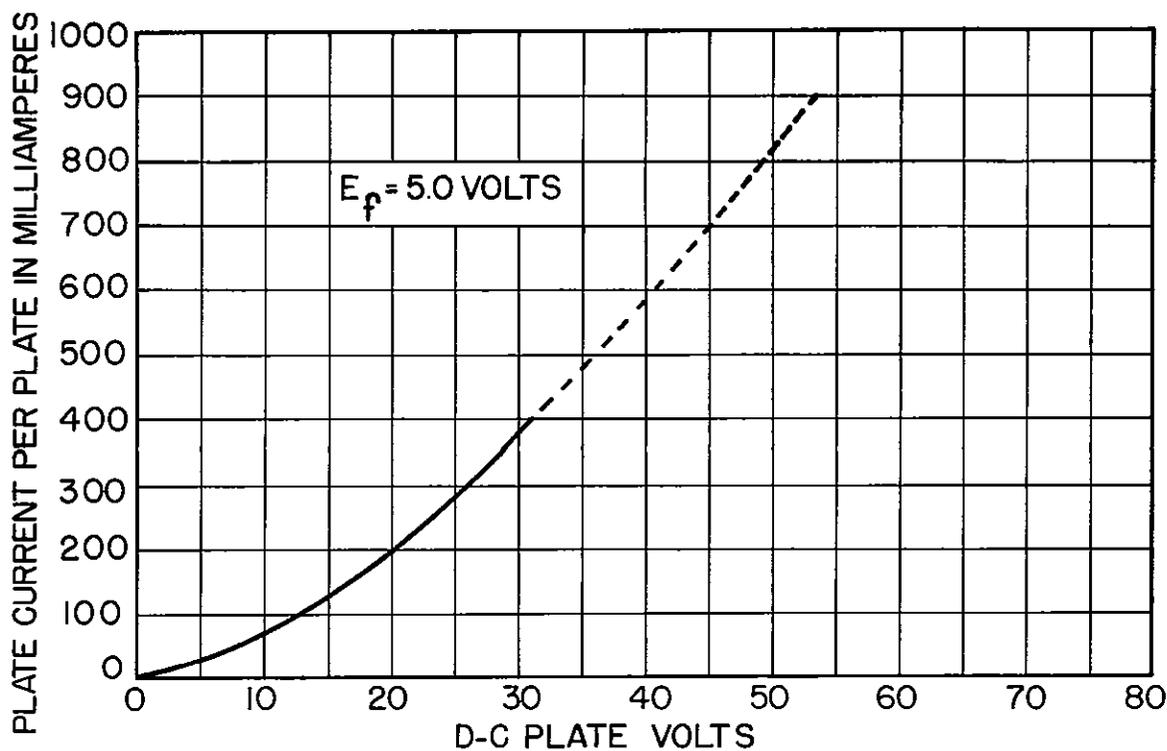
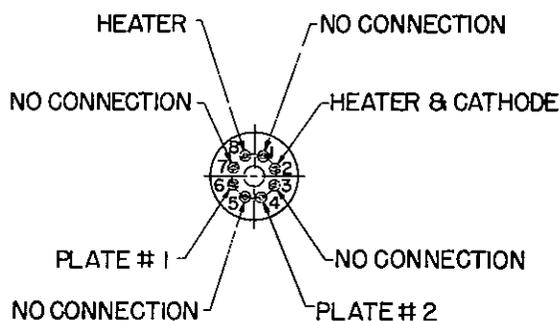
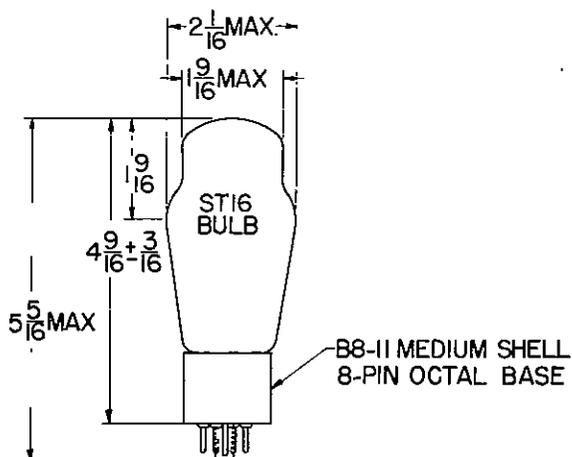
	<u>Input To Filter</u>	
	<u>Capacitor</u>	<u>Choke</u>
A-C Plate Supply Voltage per Plate	385	450 volts
Input Capacitor	10	--- microfarads
Input Choke (minimum)	---	10 henrys
Effective Plate Supply Impedance per Plate	100	--- ohms
D-C Output Current	300	350 milliamperes
D-C Output Voltage	395	360 volts



Note: Operating point for capacitor input to filter must be within the lower cross-hatched area designated "Capacitor or Choke Input" while that for choke input to filter must be at some point within either cross-hatched area.

Note 1: Temperature limit given is that required to obtain optimum tube life. Forced-air cooling is necessary to meet this limit. Maximum permissible bulb temperature is 200 centigrade.





A development of Bell Telephone Laboratories, the research laboratories of the American Telephone and Telegraph Company and the Western Electric Company.