

ELECTRON TUBE DATA SHEET  
WESTERN ELECTRIC 418A ELECTRON TUBE

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DESCRIPTION

The 418A electron tube is an indirectly heated cathode type tetrode. This tube was designed primarily for use as a power output tube in broad-band video and intermediate-frequency amplifiers.

CHARACTERISTICS

Heater Voltage . . . . .	6.3 volts
Cathode Current . . . . .	70 milliamperes
Transconductance . . . . .	26500 micromhos

$(E_b = E_{c2} = 150 \text{ volts})$   
 $(E_{c1} = 0 \quad R_k = 27 \text{ ohms})$

GENERAL CHARACTERISTICSELECTRICAL DATA

Heater Voltage . . . . .	6.3 volts
Heater Current . . . . .	0.6 ampere
Direct Interelectrode Capacitances	Without External <u>Shield</u>
Grid to Plate . . . . .	0.055 $\mu\text{f}$
Input: g1 to (h+k+g2+i.s) . . . . .	15.0 $\mu\text{f}$
Output: p to (h+k+g2+i.s) . . . . .	2.8 $\mu\text{f}$

MECHANICAL DATA

Cathode . . . . .	Coated Unipotential
Bulb . . . . .	T9
Base . . . . .	See outline drawing page 4
Mounting Position . . . . .	Any
Dimensions and pin connections shown in outline drawing on page 4	

MAXIMUM RATINGS, Design Center Values

Plate Voltage . . . . .	250 volts
Screen Grid Voltage . . . . .	150 volts
Plate Dissipation . . . . .	8.5 watts
Screen Grid Dissipation . . . . .	3.0 watts
Control Grid Dissipation . . . . .	see footnote *
Cathode Current . . . . .	90 milliamperes
Heater-Cathode Voltage . . . . .	90 volts
Bulb Temperature . . . . .	130 centigrade

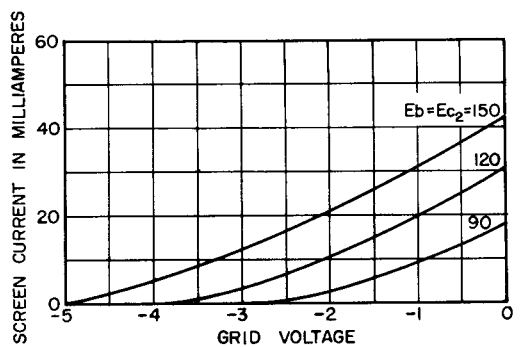
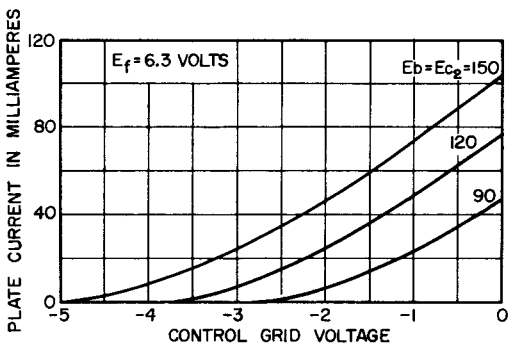
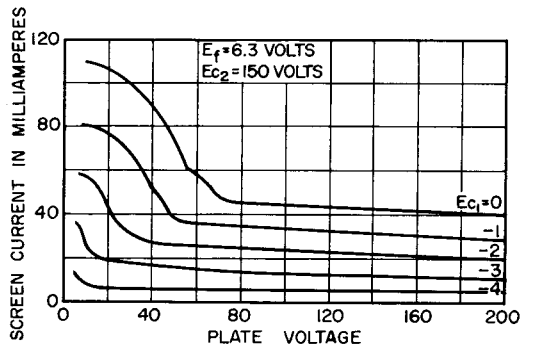
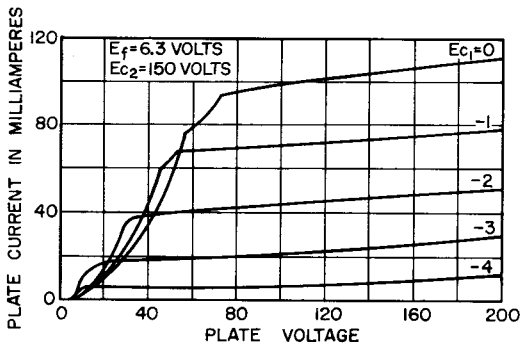
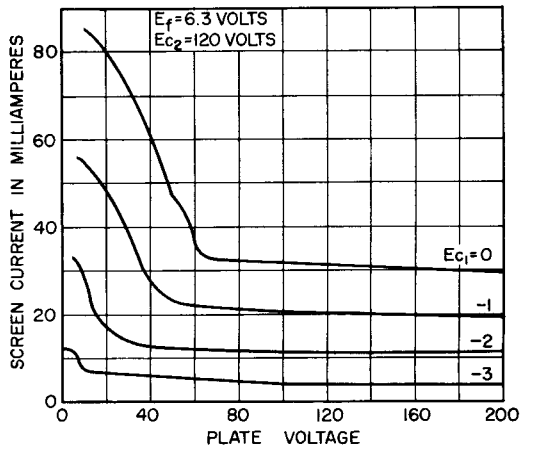
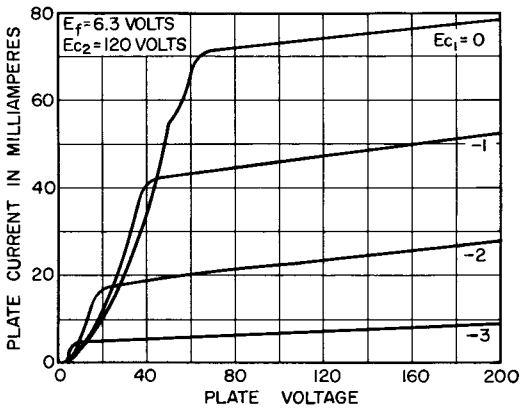
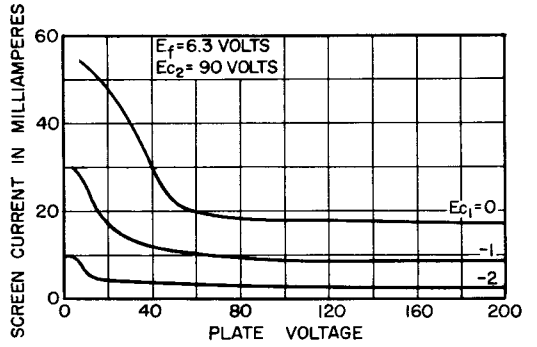
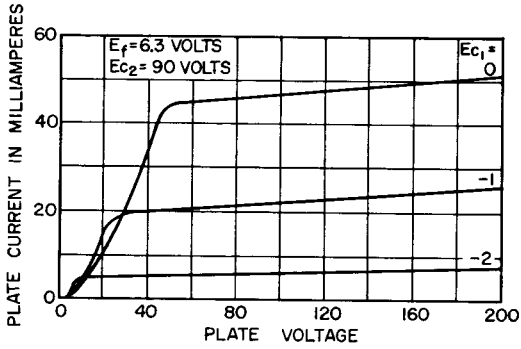
MAXIMUM CIRCUIT VALUES

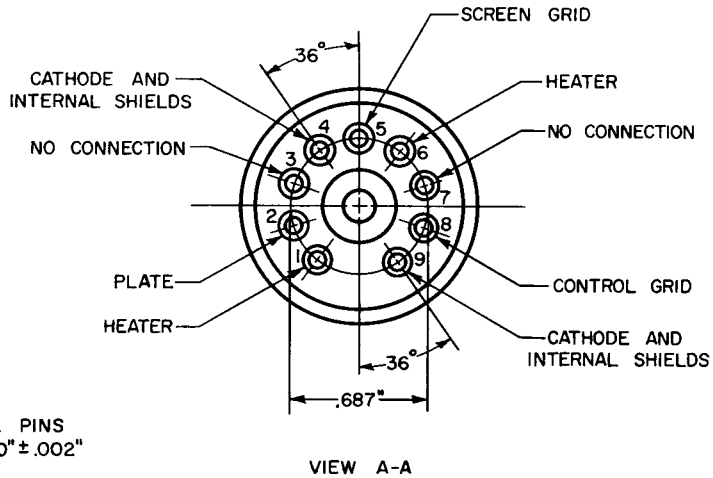
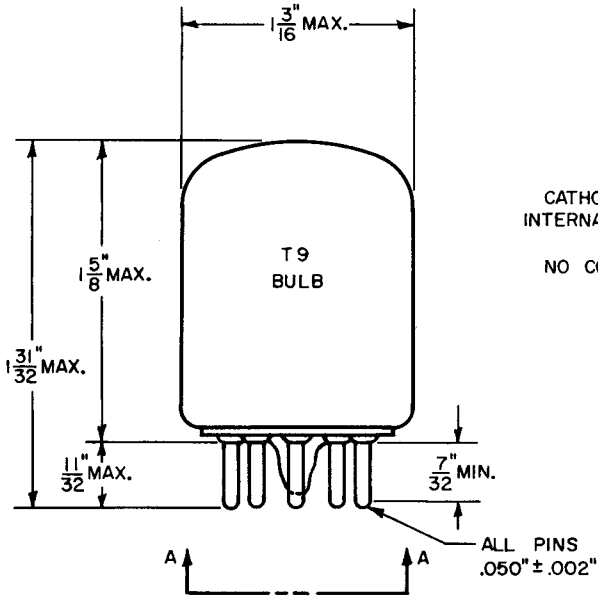
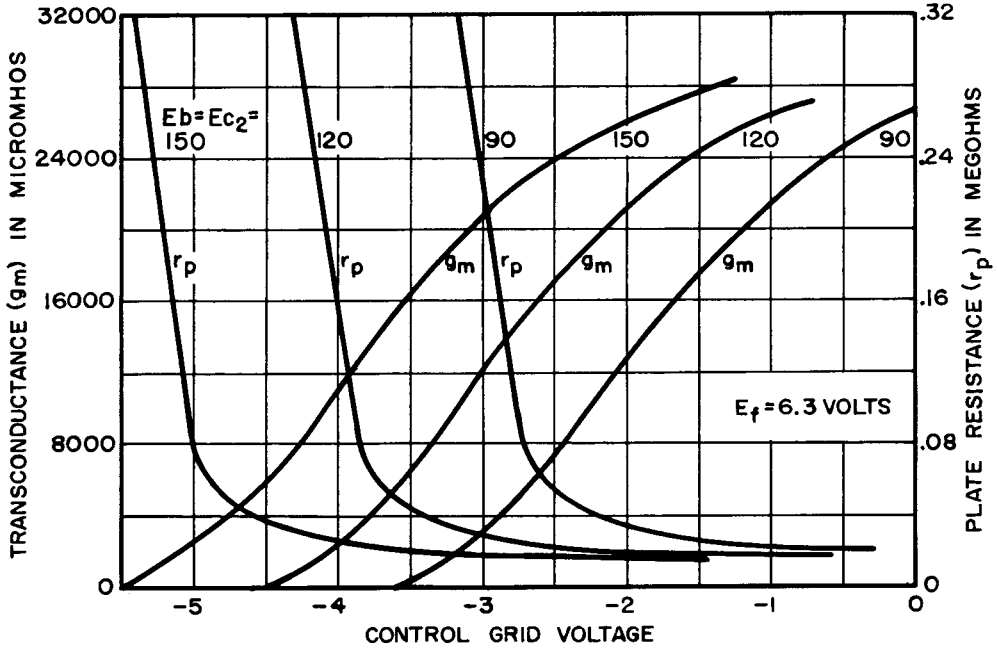
Grid Circuit Resistance:	
For Fixed Bias . . . . .	0.05 megohm
For Cathode Bias . . . . .	0.10 megohm

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Plate Voltage . . . . .	120	150	volts
Screen Grid Voltage . . . . .	120	150	volts
Control Grid Voltage . . . . .	-1.0	---	volts
Cathode Bias Resistor . . . . .	---	27	ohms
Plate Current . . . . .	47	50	milliamperes
Screen Grid Current . . . . .	20	20	milliamperes
Plate Resistance . . . . .	18000	18000	ohms
Transconductance . . . . .	26500	26500	micromhos
Control Grid Voltage (approximate) for Plate Current of 10 microamperes . . . . .	-9.5	---	volts

\* Operation with the control grid positive with respect to the cathode is not recommended.





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