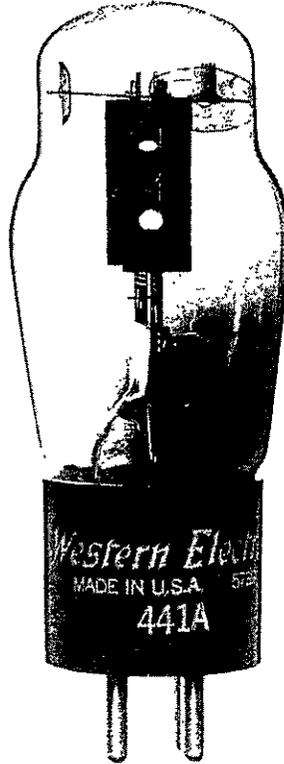


ELECTRON TUBE DATA SHEET  
**WESTERN ELECTRIC 441A ELECTRON TUBE**



**TRIODE  
 VOLTAGE AMPLIFIER**

DESCRIPTION

The 441A is a filamentary triode designed for use as a voice frequency and carrier frequency voltage amplifier, detector, or modulator. The 441A is identical to the 102F electron tube except that it is fitted with a standard A4-9 medium 4-pin push type base.

CHARACTERISTICS

Filament Current (Note 1, Page 2)	0.50	ampere
Plate Current	$\left\{ \begin{array}{l} E_b = 130 \text{ volts} \\ E_c = -2.0 \text{ volts} \\ R_1 = 0.1 \text{ megohm} \end{array} \right.$	0.60 milliampere
Peak Output Voltage		

ELECTRON TUBE DATA SHEET  
 FILE: GENERAL PURPOSE SECTION

GENERAL CHARACTERISTICS

Electrical Data

Filament Voltage (D-C)	2.1	volts
Filament Current (D-C) (Note 1)	0.5	amperes
Direct Interelectrode Capacitances		
Grid To Plate	5.1	$\mu\mu\text{f}$
Grid To Filament	4.0	$\mu\mu\text{f}$
Plate To Filament	2.3	$\mu\mu\text{f}$

Mechanical Data

Cathode	Coated Filament
Bulb	ST 14
Base	A4-9 medium 4-pin
Mounting Position	Preferably vertical, if horizontal the position of the plane of the filament should be vertical

Dimensions and pin connections shown in outline drawing on page 6.

MAXIMUM RATINGS, Absolute System (Note 2)

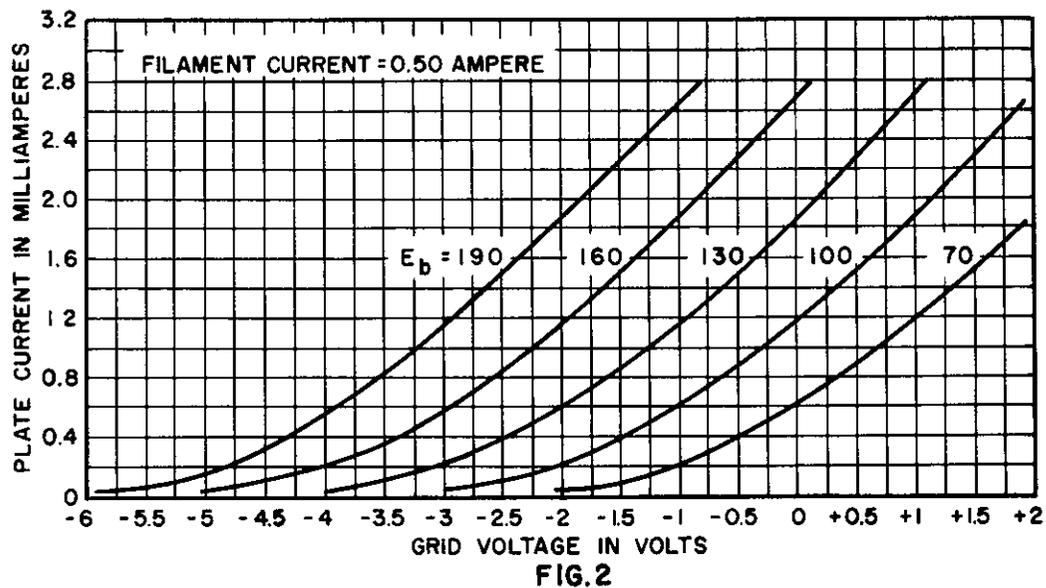
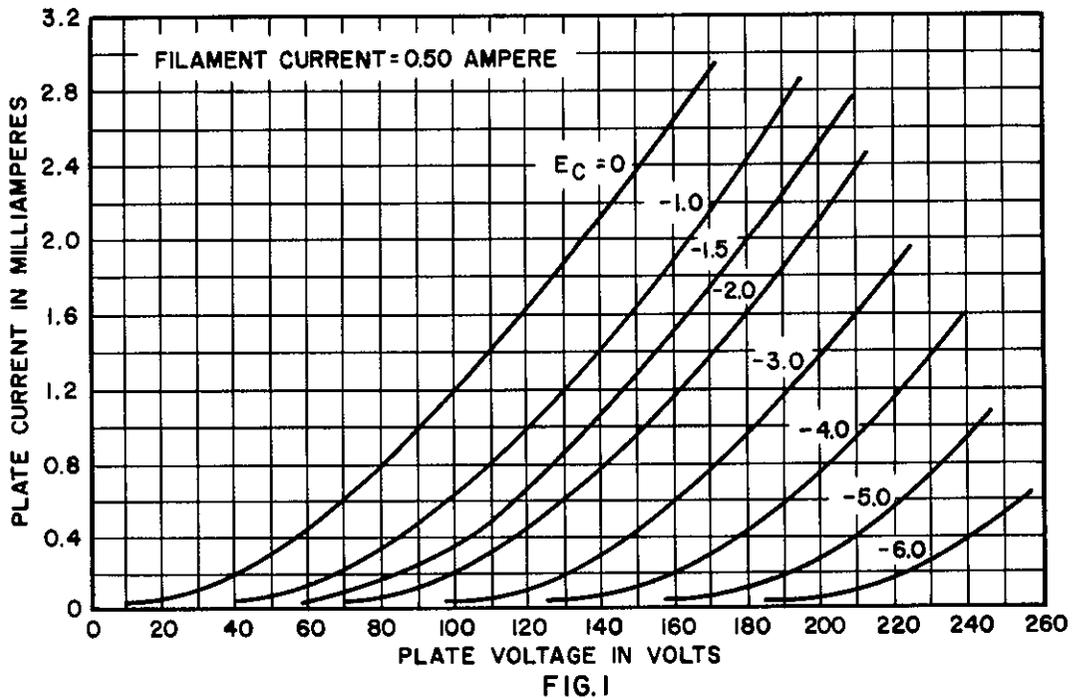
Filament Voltage	2.2	volts
Plate Voltage	200	volts
Plate Power	0.5	watts

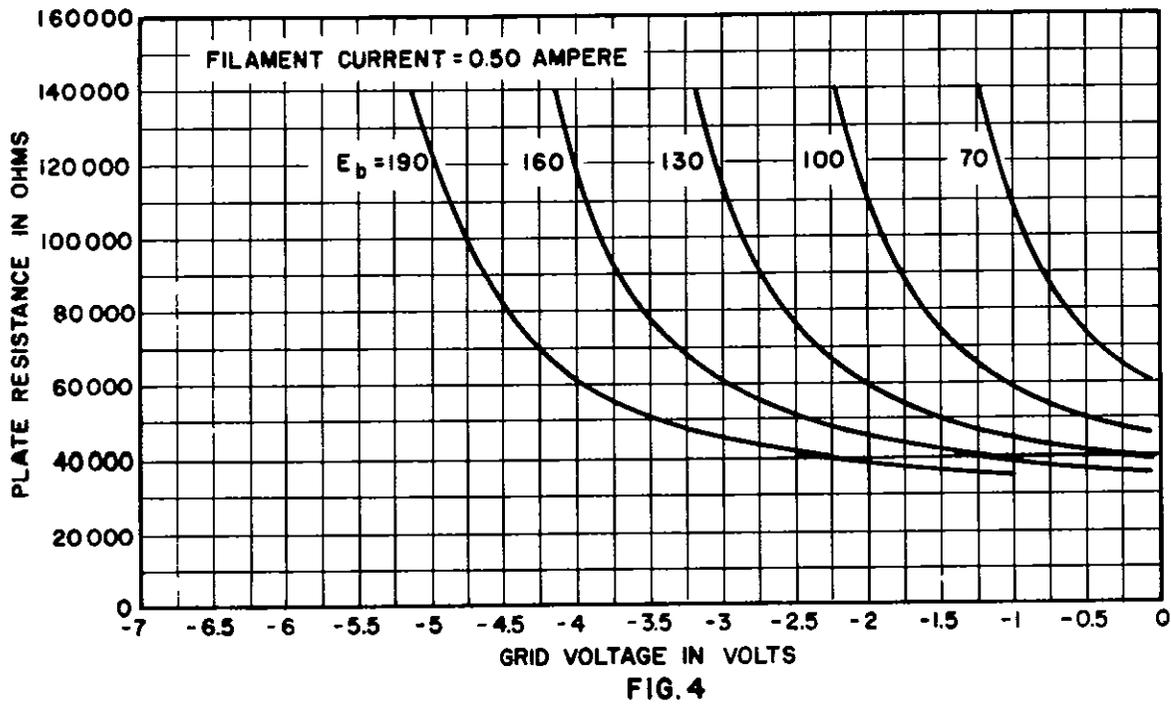
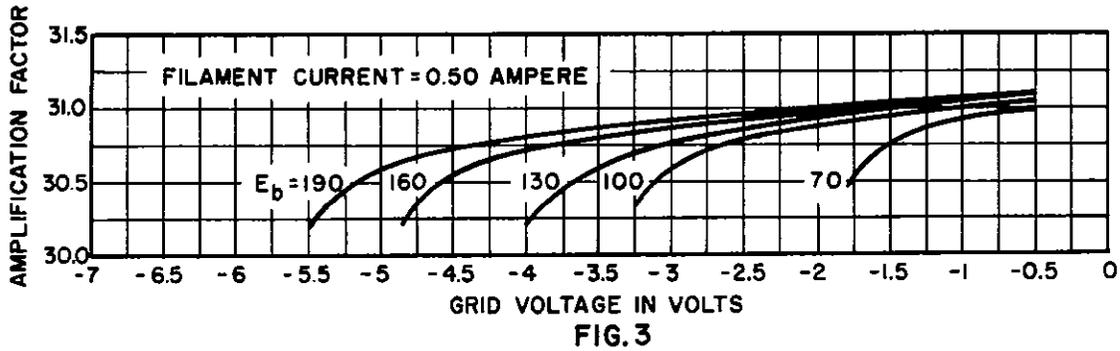
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Filament Current	0.5	0.5	0.5	0.5	ampere
Plate Voltage	130	160	190	190	volts
Grid Voltage	-2.0	-3.0	-2.0	-2.0	volts
Plate Current	0.60	0.55	1.85	1.85	milliamperes
Transconductance	530	520	800	800	micromhos
Plate Resistance	58000	60000	39000	39000	ohms
Amplification Factor	30.9	30.9	31.0	31.0	
Load Resistance	0.1	0.1	0.1	0.3	megohms
Peak Output Voltage	37	53	41	50	volts

Note 1: The filament of this tube is designed to operate on a current basis and should be operated at as near the rated current as practicable.

Note 2: In the "Absolute System" the maximum ratings specified are limiting values above which the serviceability of the device may be impaired from the viewpoint of life and satisfactory performance. Maximum ratings, as such, do not constitute a set of operating conditions and all values may not, therefore, be attained simultaneously.





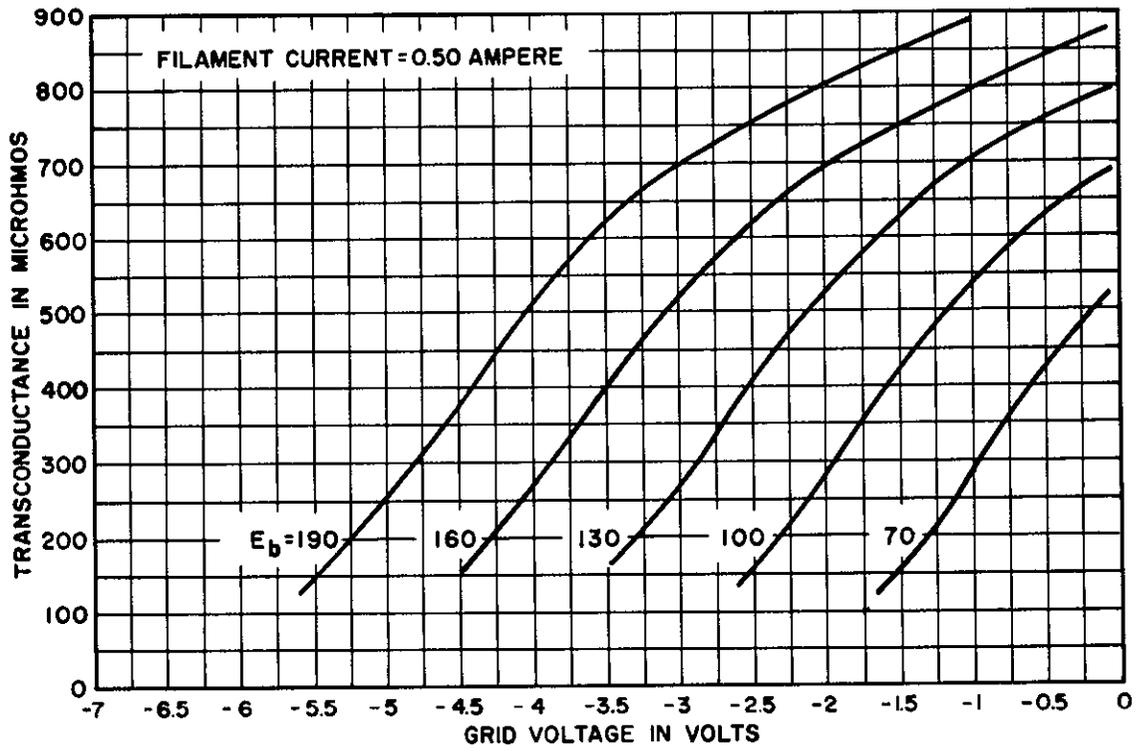
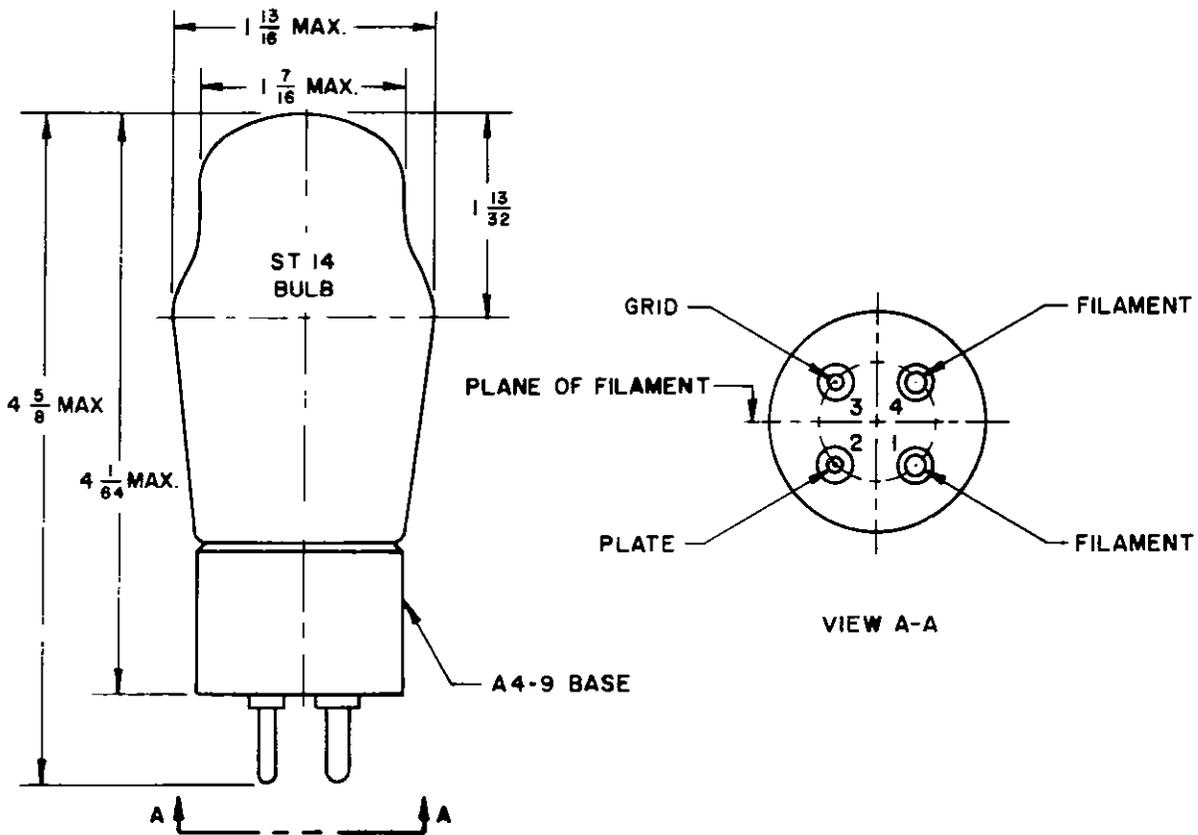


FIG. 5



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

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