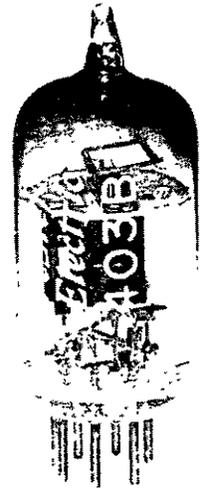


ELECTRON TUBE DATA SHEET
WESTERN ELECTRIC 403 B ELECTRON TUBE



DESCRIPTION

The 403B is a 7 pin miniature pentode with an indirectly heated cathode. It is designed for use in amplifier circuits at high and ultra high frequencies.

CHARACTERISTICS

Heater Voltage		6.3	volts
Plate Current	} $E_b = E_{c2} = 120$ volts; Cathode Bias Resistor = 200 ohms	7.5	milliamperes
Transconductance		5000	micromhos

FILE: MINIATURE SECTION

GENERAL CHARACTERISTICS

Electrical Data

Heater Voltage, A-C or D-C (Note 1)	6.3	volts
Heater Current	150	milliamperes
Direct Interelectrode Capacitances	without	with
	external shield	external shield
		(JEDEC #316)
Grid to Plate (maximum)	.019	*.010 $\mu\mu\text{f}$
Input: g1 to (h+k+g2+g3+i.s.)	3.9	* 4.0 $\mu\mu\text{f}$
Output: p to (h+k+g2+g3+i.s.)	2.0	* 2.9 $\mu\mu\text{f}$

Mechanical Data

Cathode	Coated Unipotential
Bulb	T 5½
Base	Miniature Button 7 pin
Mounting Position	Any
Dimensions and pin connections shown in outline drawing on Page 4.	

MAXIMUM RATINGS, Absolute System (Note 2)

Plate Voltage	200	volts
Screen Grid Voltage	155	volts
Plate Dissipation	1.85	watts
Screen Grid Dissipation	0.55	watt
Cathode Current	20	milliamperes
Heater Cathode Voltage	130	volts
Bulb Temperature	130	centigrade
Maximum Grid Circuit Resistance		
For Fixed Bias	1.0	megohm
For Cathode Bias	2.0	megohms

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS - Class A₁ Amplifier

Plate Voltage	120	150	180	volts
Screen Grid Voltage	120	140	120	volts
Cathode Bias Resistor (Note 3)	200	330	200	ohms
Plate Current	7.0	6.6	7.4	milliamperes
Screen Grid Current	2.2	2.1	2.1	milliamperes
Plate Resistance	0.30	0.40	0.45	megohm
Transconductance	5000	4500	5100	micromhos
Grid Voltage, Approximate, for				
Plate Current of 10 Microamperes	-6.8	-7.8	-6.9	volts

* External shield connected to cathode pins 2 and 7.

Note 1: For optimum tube life the heater voltage specified (6.3 volts) should be regulated to ±5%.

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.

Note 3: Operation with the control grid positive with respect to the cathode is not recommended.

← Indicates a change

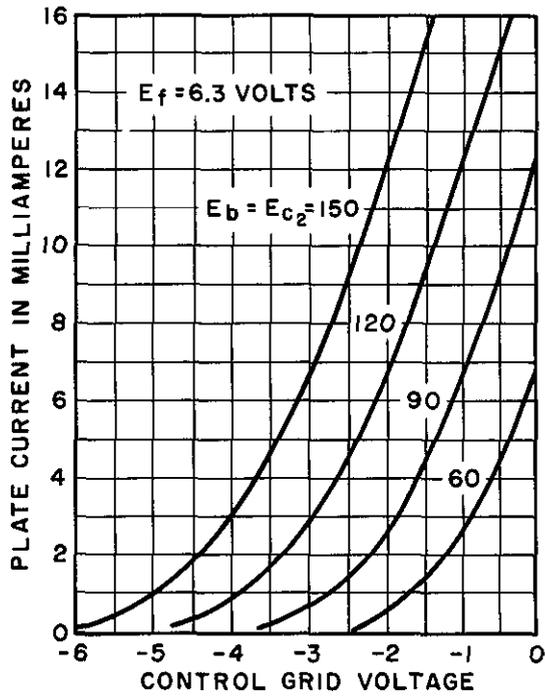


FIG. 1

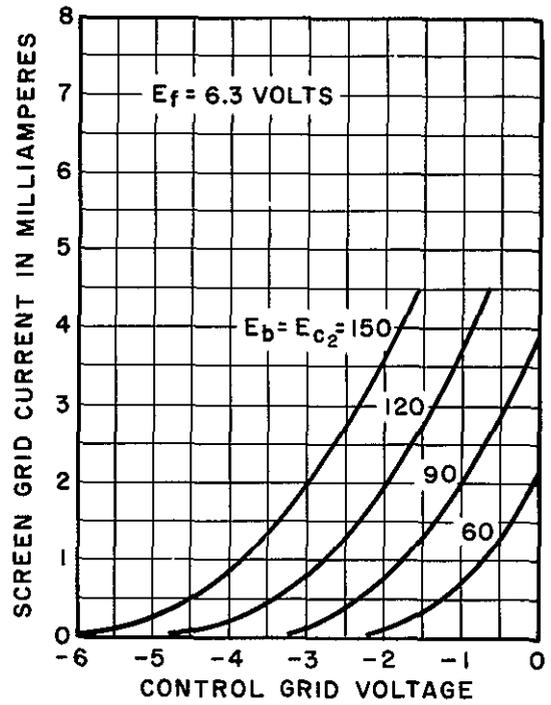


FIG. 2

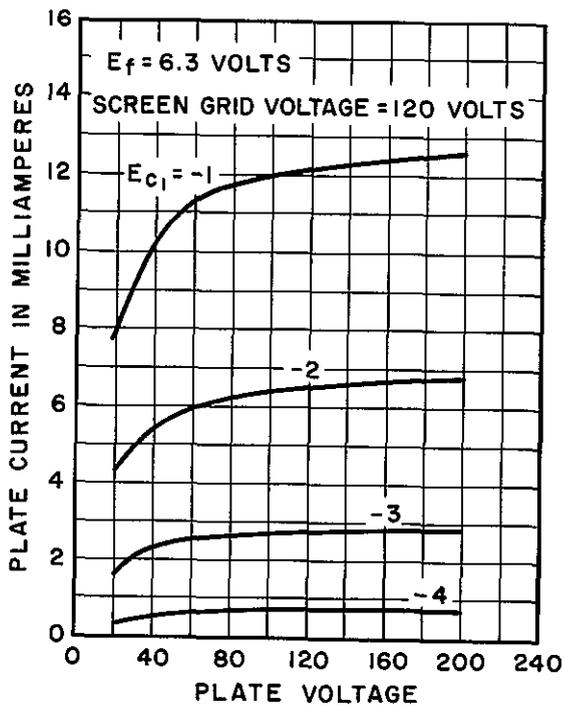


FIG. 3

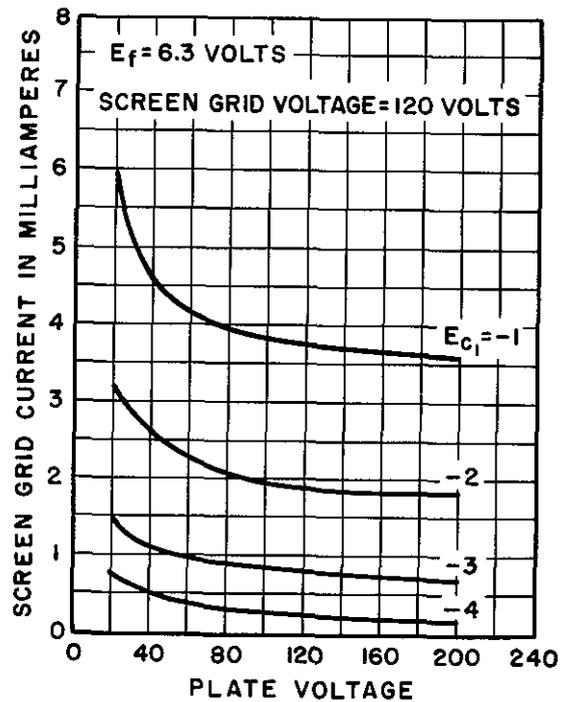


FIG. 4

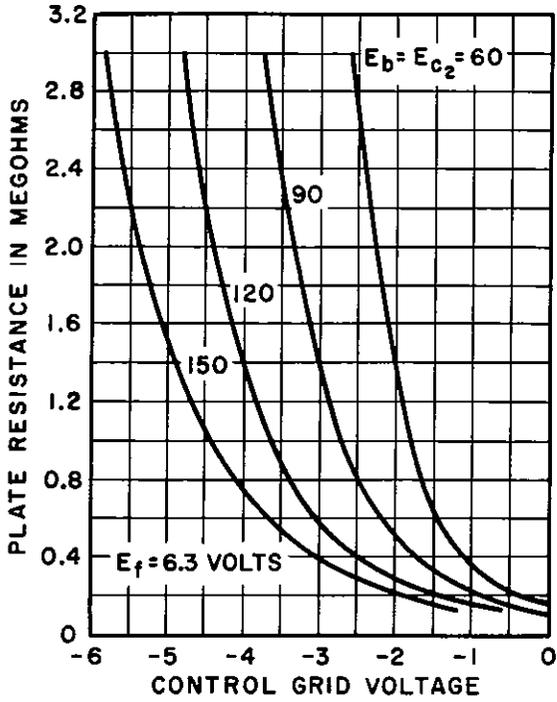


FIG. 5

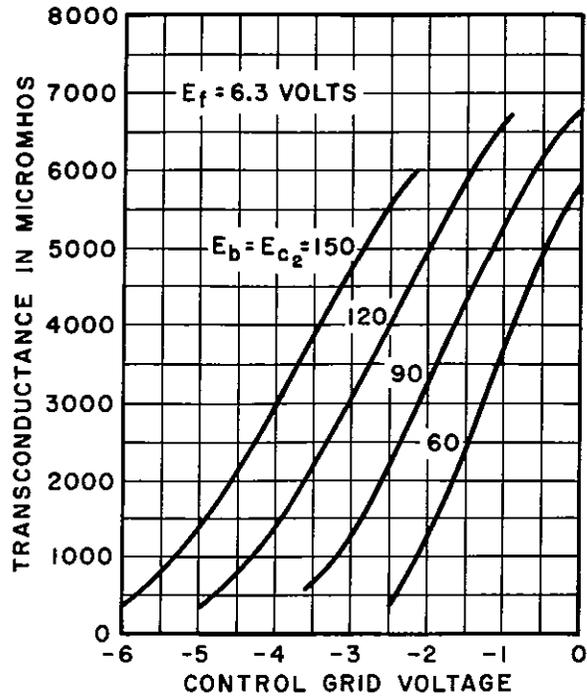
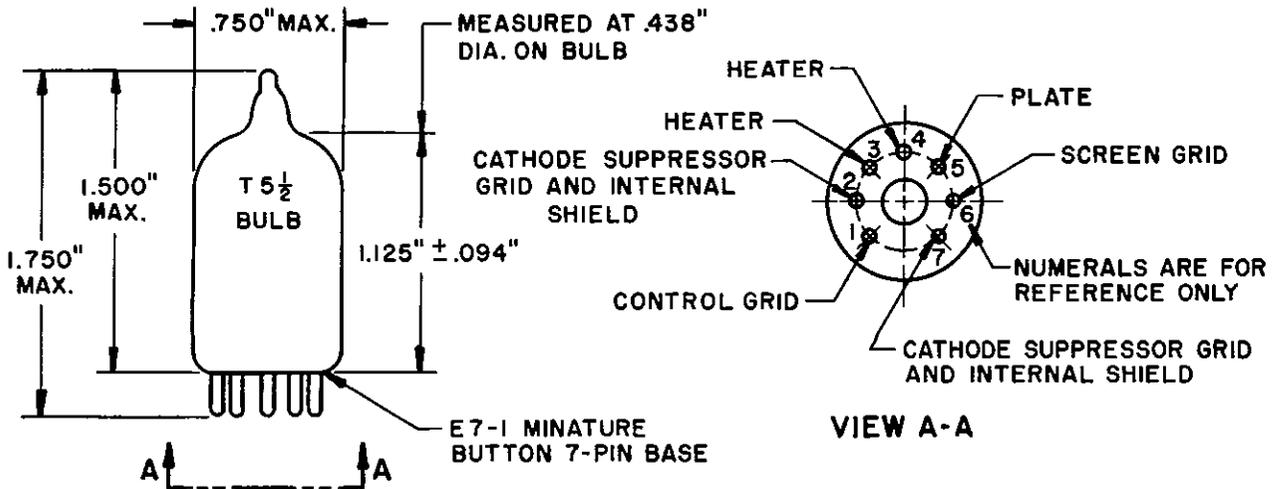


FIG. 6



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