

PHILIPS

6BN5

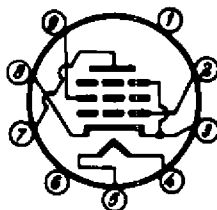
OUTPUT PENTODE

PHYSICAL SPECIFICATIONS

Cathode	Coated unipotential
Base	Small button noval 9-pin base
Bulb	T6 $\frac{1}{2}$
Maximum overall length	2.5/8"
Maximum seated height	2 3/8"
Bulb length excluding tip	2" $\pm$ 3/32"
Maximum diameter	7/8"
Mounting position	any
Basing connections - JETEC basing designation	9 CR

Pin 1 - Not connected
Pin 2 - Grid No.1
Pin 3 - Cathode, grid No.3
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Not connected
Pin 7 - Plate
Pin 8 - Cathode, grid No.3
Pin 9 - Grid No.2

Bottom View
of Base



GENERAL ELECTRICAL DATA

HEATER DATA

Heater voltage	6.3 volts
Heater current	0.2 amp

DIRECT INTERELECTRODE CAPACITANCES

Grid No.1 to all other elements except plate	4.3 μ F
Plate to all other elements ex- cept grid No.1	5.1 μ F
Plate to grid No.1	max. 0.2 μ F

6BN5**PHILIPS**MAXIMUM RATINGS (Design Center Values)

Plate voltage without current	550 volts
Plate voltage	300 volts
Plate dissipation	6 watts
Grid No.2 voltage without current	550 volts
Grid No.2 voltage	300 volts
Grid No.2 dissipation without input signal	1.0 watt
Grid No.2 dissipation at full load	2.0 watts
Cathode current	35 m amps
Grid current starting point.	
Grid No.1 voltage at grid No. 1 current = 0.3μ amp	-1.3 volts
Grid No.1 circuit resistance	2 megohms
Heater to cathode voltage	100 volts
External heater to cathode resistance	20,000 ohms

OPERATING CONDITIONS

Class A, one tube

Plate voltage	200	225 volts
Grid No.2 voltage	200	225 volts
Cathode bias resistor	360	360 ohms
Plate current	22.5	26 m amps
Grid No.2 current	3.5	4.1 m amps
Transconductance	3200	3200 micromhos
Amplification factor of grid No.2 with respect to grid No.1	11	11
Plate load resistance	9000	9000 ohms
Input A.C. voltage	6.8	8.0 volts,rms
Max. signal power output	2.1	2.8 watts
Total harmonic distortion	11	12 percents
Input A.C. voltage for power output of 50 m watts	0.8	0.75 volts,rms

OPERATING CONDITIONS (Continued)

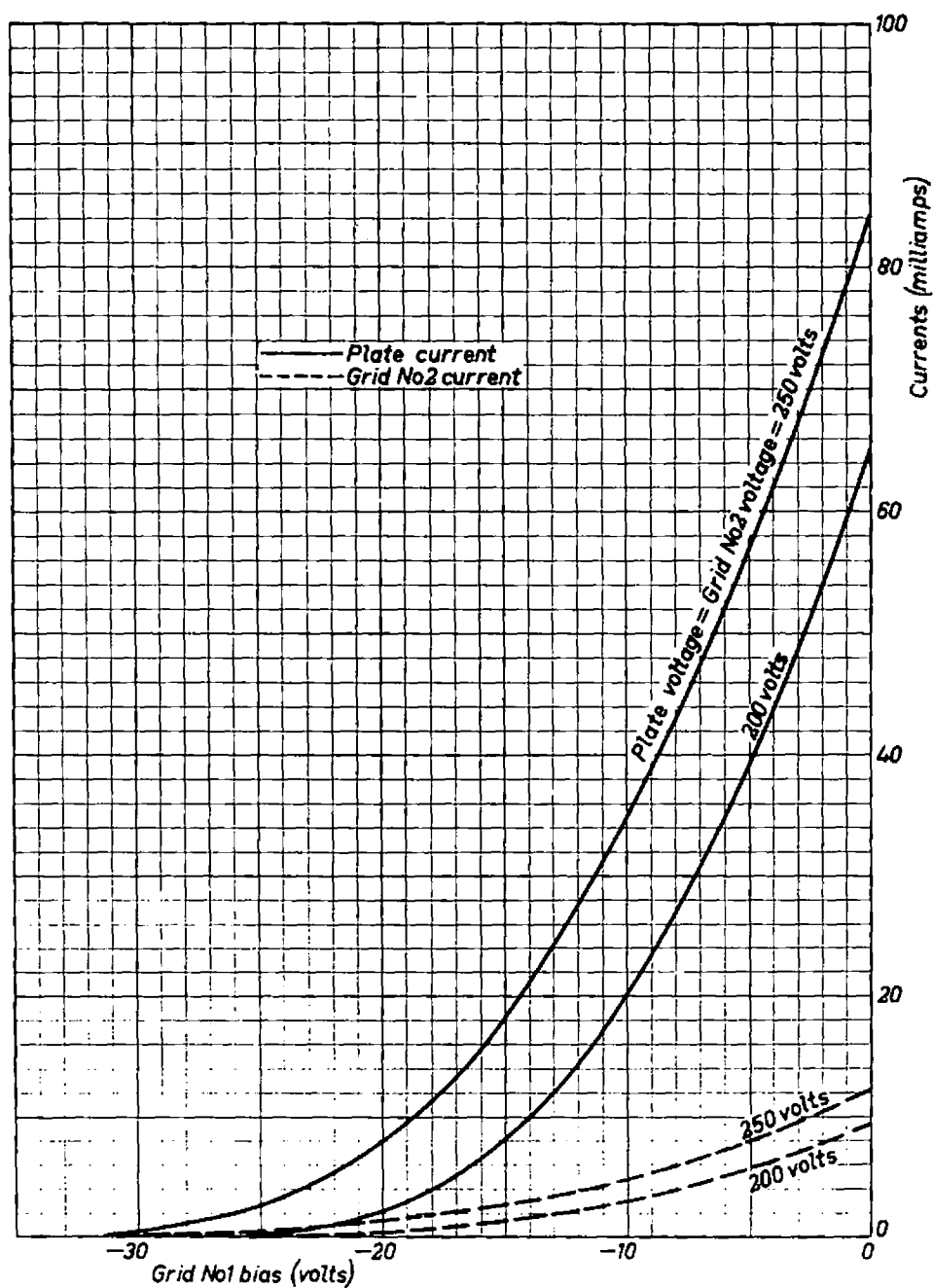
Class AB, two tubes

Plate voltage	200	250	volts
Grid No.2 voltage	200	250	volts
Common cathode resistor	310	310	ohms
Load resistance, plate to plate	15000	15000	ohms
Input A.C.voltage	0 9.6	0 12.5	volts,rms
Plate current	2x16 2x17	2x20 2x22	m amps
Grid No.2 current	2x2.6 2x5.6	2x3.2 2x6.7	m amps
Max. signal power output	0 4.1	0 7.0	watts
Total harmonic distortion	- 5.5	- 5.5	percents

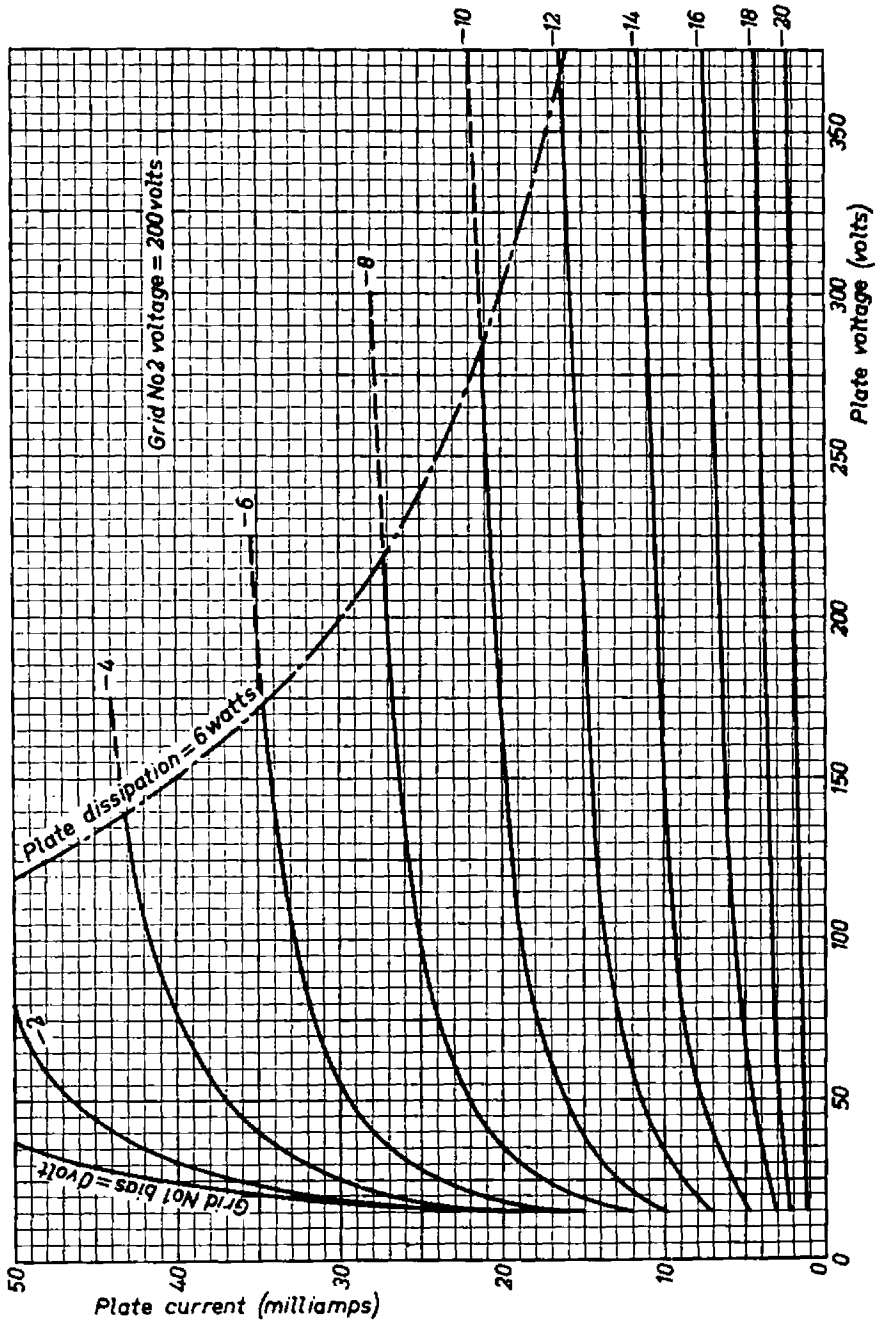
Class B, two tubes

Plate voltage	200	250	volts
Grid No.2 voltage	200	250	volts
Grid No.1 bias	-17	-22.5	volts
Plate resistance, plate to plate	16000	16000	ohms
Input A.C.voltage	0 12	0 16	volts,rms
Plate current	2x5 2x16	2x5 2x20	m amps
Grid No.2 current	2x0.8 2x4.6	2x0.8 2x6.5	m amps
Max. signal power output	0 4.0	0 6.5	watts
Total harmonic distortion	- 3.5	- 5	percents

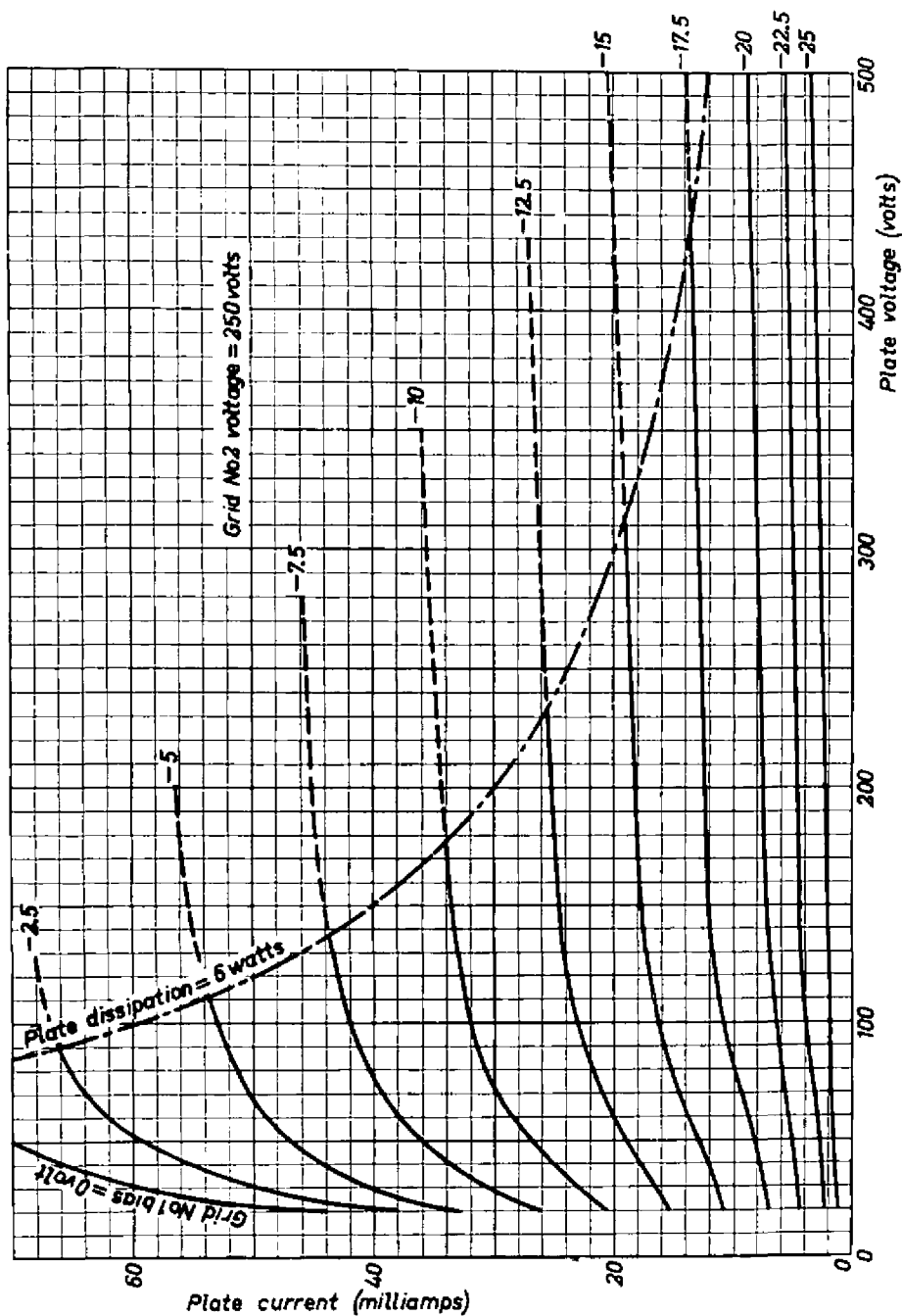
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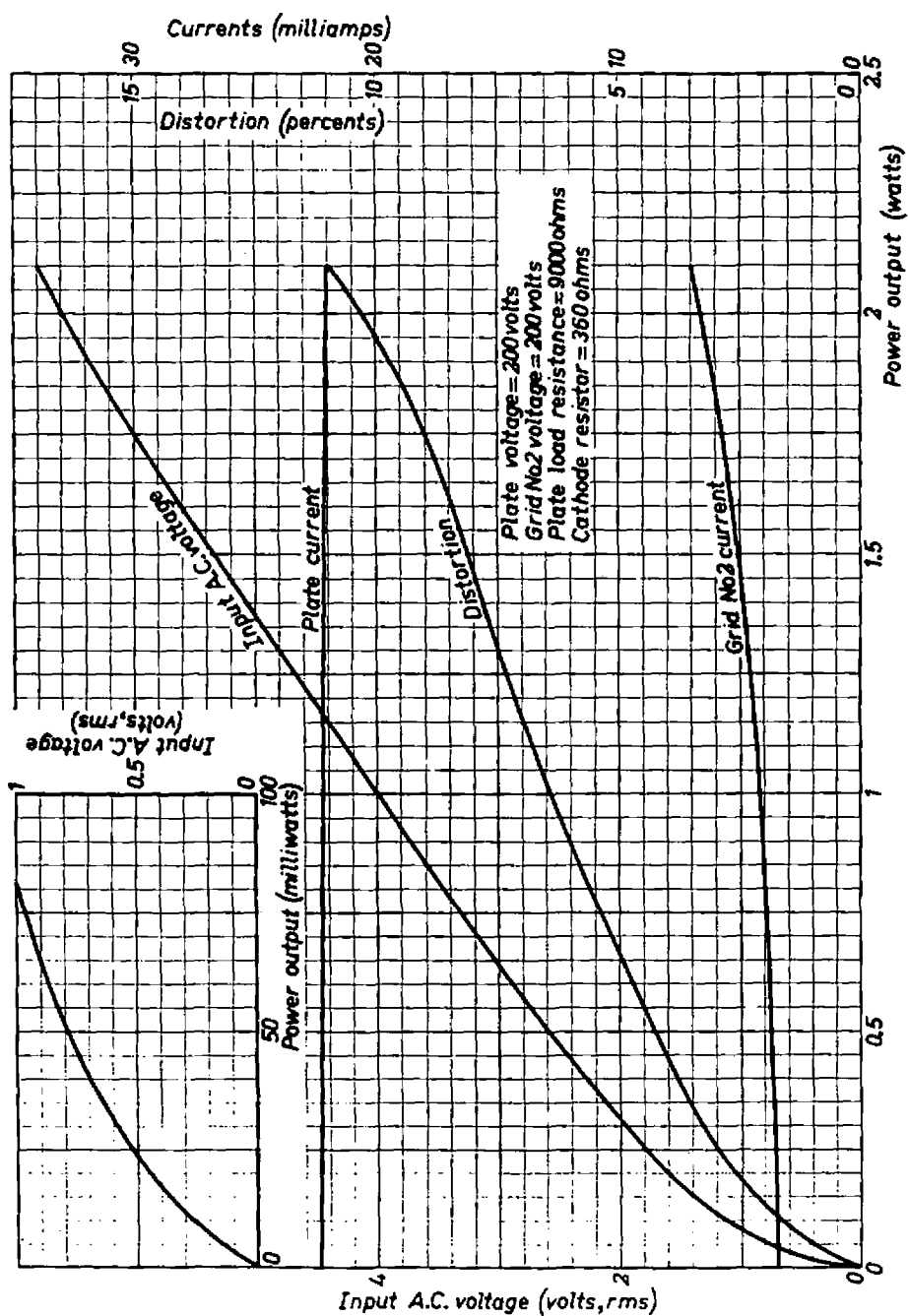
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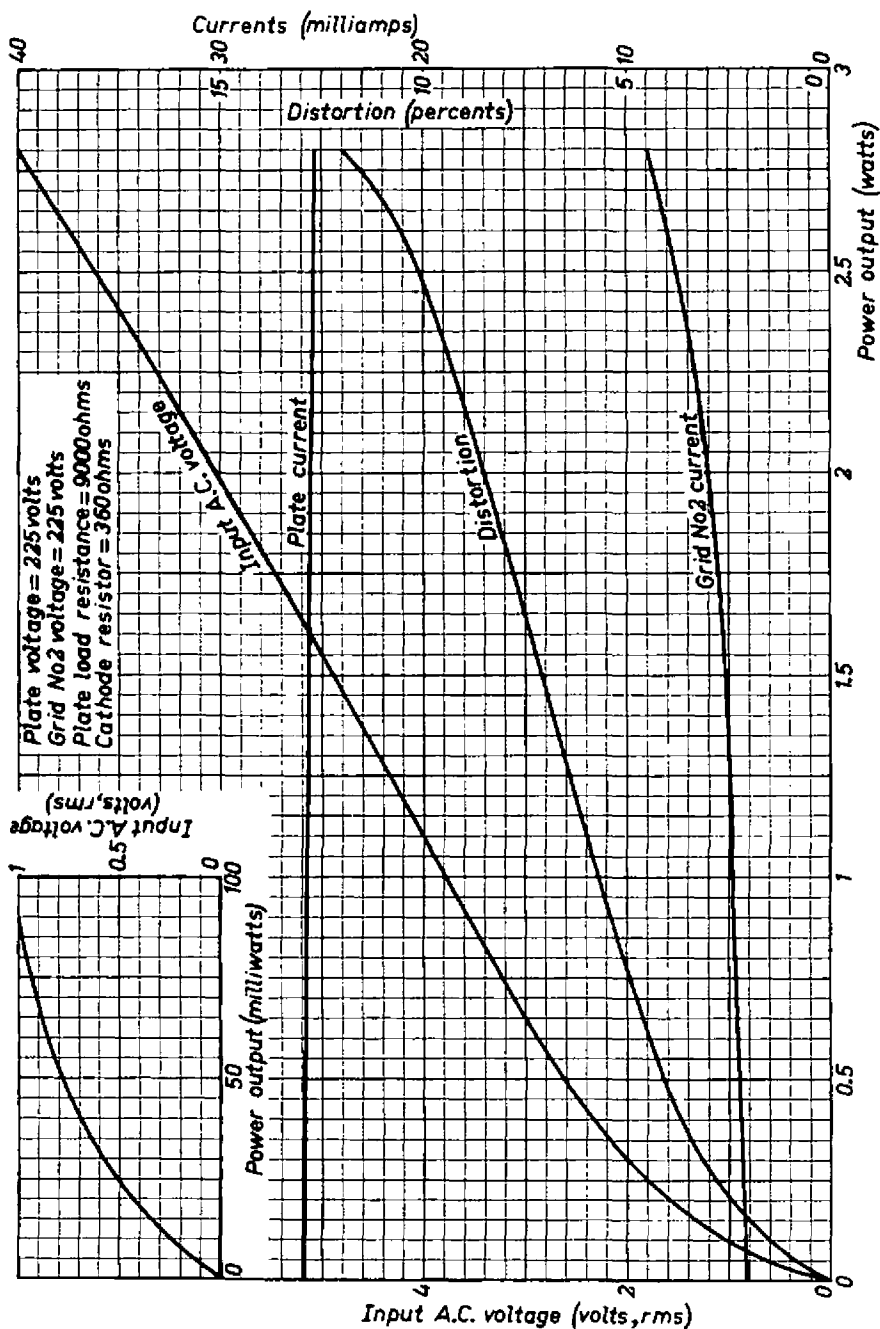
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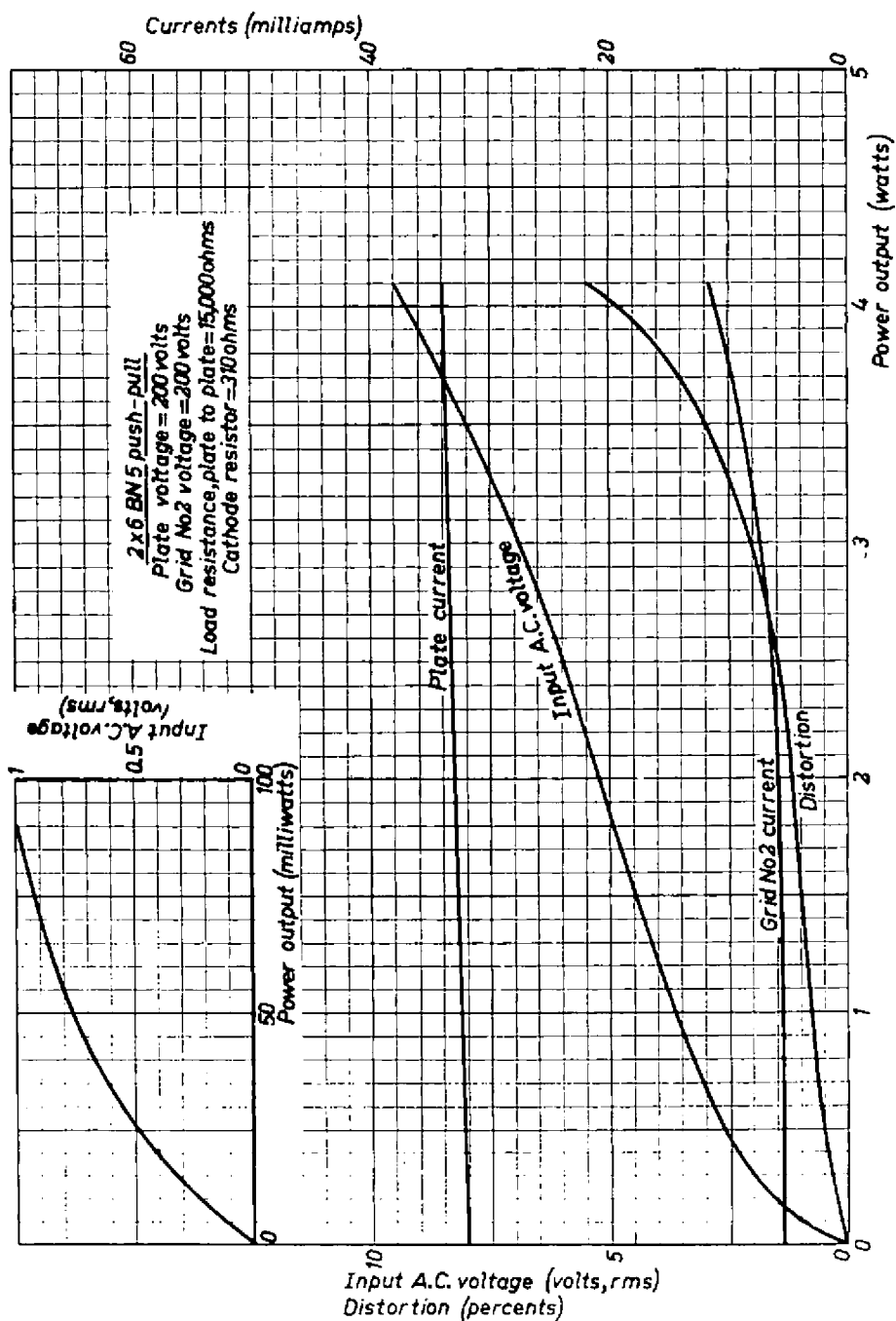
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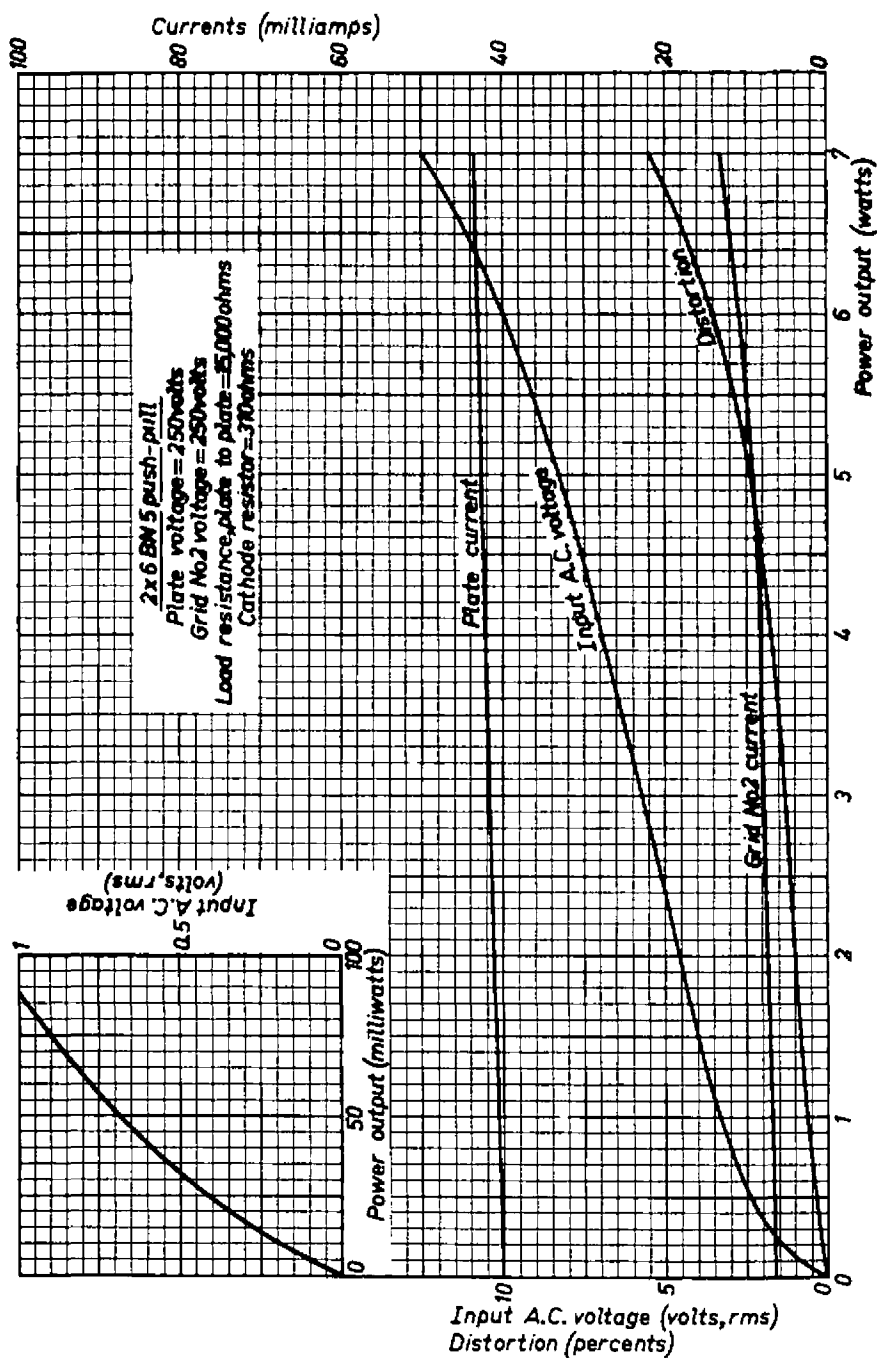
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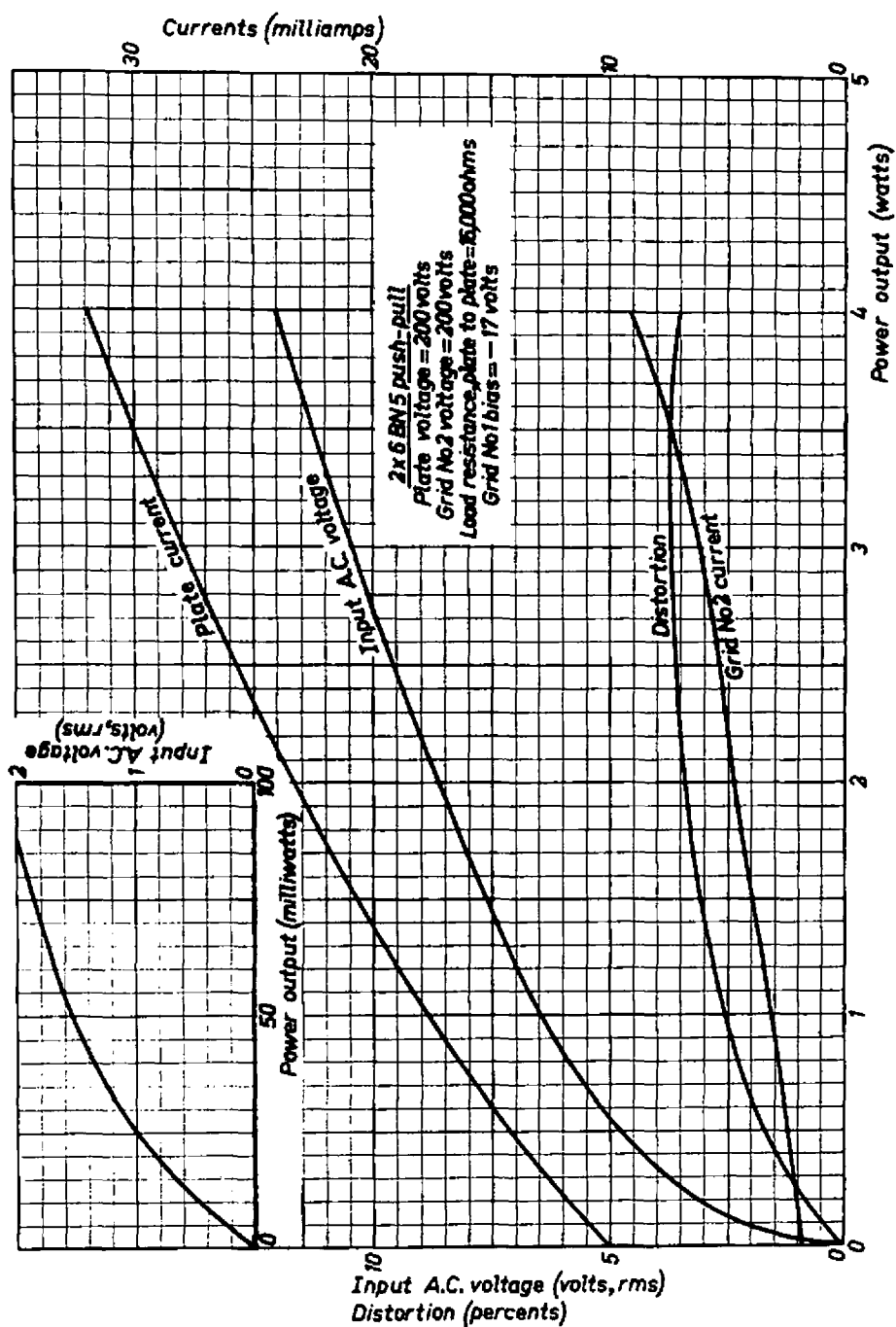
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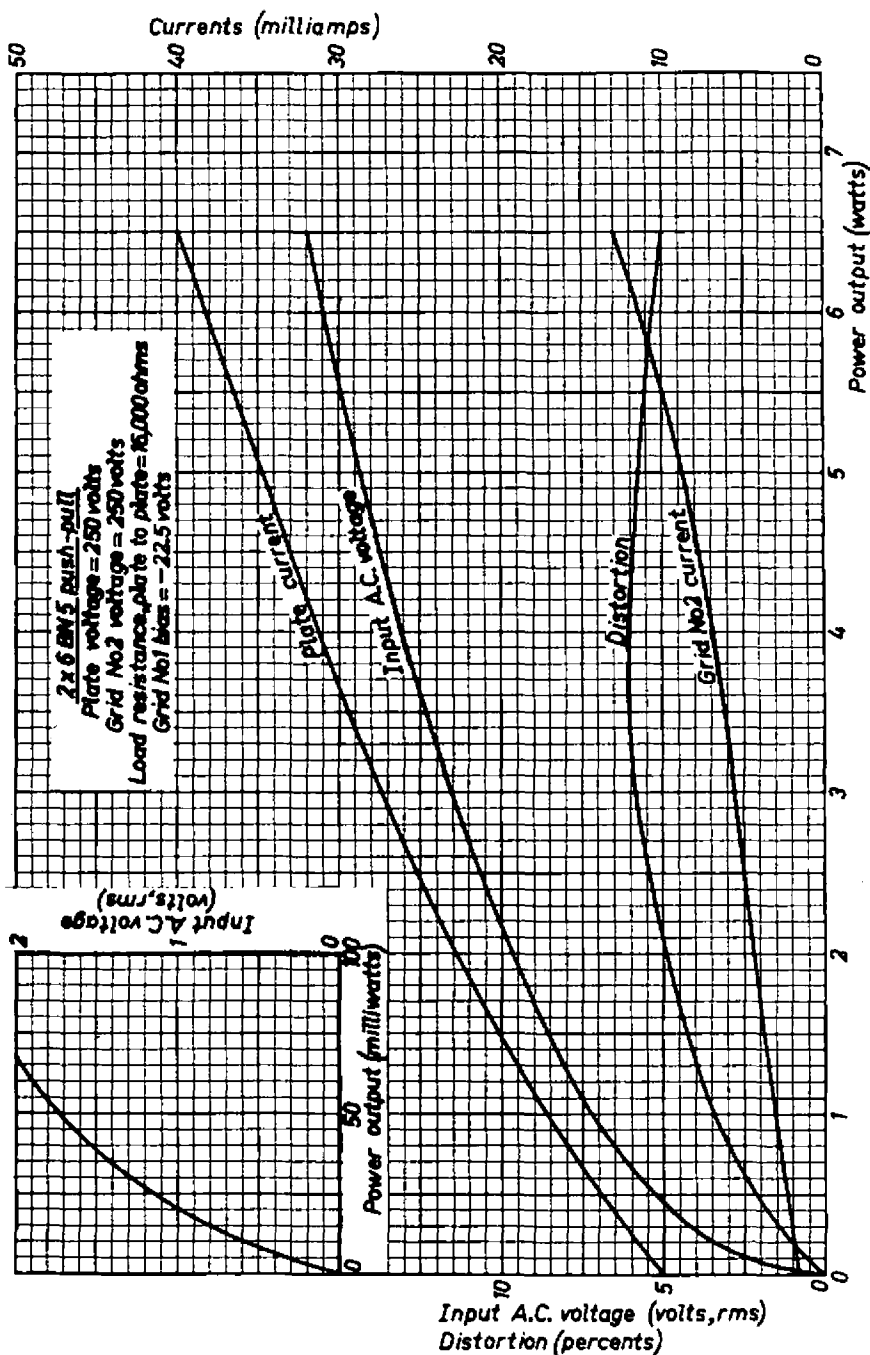
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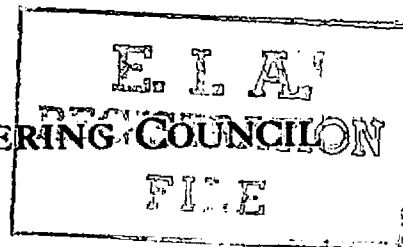
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JOINT ELECTRON TUBE ENGINEERING COUNCIL



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Announcement of Electron Device Type Reregistration

Release No. 1339A (Tentative)*

March 19, 1956

The Joint Electron Tube Engineering Council announced registration of the following JETEC tube type designation

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on August 16, 1954 in Release No. 1339, under the sponsorship of the Philips Laboratories, Irvington on Hudson, New York.

The sponsor now proposes reregistration on the basis of the following modifications:

<u>ITEM</u>	<u>AS REGISTERED</u>	<u>AS PROPOSED</u>
Basing Arrangement (9CR)	Pin 1 - N.C. Pin 2 - G1 Pin 3 - K, G3 Pin 4 - H Pin 5 - H Pin 6 - N.C. Pin 7 - P Pin 8 - K, G3 Pin 9 - G2	G1 G1 K H H G3 P G3 G2

*Unless valid objection to this reregistration is lodged with the RETMA Engineering Office prior to April 19, 1956, this reregistration will be made and this information will be considered "FINAL" WITHOUT FURTHER NOTICE!