MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Audio-Frequency Power Amplifier and Modulator—Class B

Maximum Ratings, Absolute Values

	CCS	
D.C. Plate Voltage	5000	max. volts
D.C. Grid No. 2 Voltage	700	max. volts
D.C. Plate Current	450	max. ma.
Plate Input	2250	max. watts
Plate Dissipation	500	max. watts
Grid No. 2 Dissipation[2]	70	max. watts
Grid No. 1 Resistor	35,000	max. ohms

Typical Operation

Unless otherwise specified, values are for two tubes.

	CCS	CCS	
Plate Voltage	5000	5000	volts
Grid No. 1 Voltage	—70	—60	volts
Grid No. 2 Voltage	700	600	volts
Effective load resistance, plate to plate	20,000	20,000	ohms
Peak A.F. Grid to Grid Voltage	290	270	volts
Zero Signal D.C. Plate Current	130	130	ma
Maximum Signal D.C. Plate Current	650	600	ma
Zero Signal D.C. Grid No. 2 Current	0	0	ma
Maximum Signal D.C. Grid No. 2 Current	190	170	ma
Maximum Signal Driving Power, approximate	2.6	2.4	watts
Maximum Signal Power Output	2550	2300	watts
Total Harmonic Distortion	3.8	4.6	per cent

Plate and Screen Grid Modulated, R.F. Power Amplifier—Class C Telephony

Carrier conditions per tube for use with a maximum modulation factor of 1.0.

Maximum[1] Ratings, Absolute Values
(Frequencies up to 75 mc.)

	CCS	
D.C. Plate Voltage	4000	max. volts
D.C. Grid No. 2 Voltage	700	max. volts
D.C. Grid No. 1 Voltage	—500	max. volts
D.C. Plate Current	400	max. ma
D.C. Grid No. 1 Current	30	max. ma
Plate Input	1600	max. watts
Plate Dissipation	330	max. watts
Grid No. 2 Dissipation	50	max. watts
Grid No. 1 Dissipation	25	max. watts

Typical Operation

Frequency	60	mc
D.C. Plate Voltage	4000	volts
D.C. Grid No. 2 Voltage	600	volts
D.C. Grid No. 1 Voltage	—240	volts
Peak Grid No. 2 Voltage	340	volts
Peak R.F. Grid No. 1 Voltage	415	volts
D.C. Plate Current	380	ma
D.C. Grid No. 2 Current	80	ma
D.C. Grid No. 1 Current	20	ma
Driving Power	7.5	watts
Power Output	1200	watts

R.F. Power Amplifier Class C Telegraphy

Key-down conditions per tube without amplitude modulation[4]

Maximum Ratings, Absolute Values
(Frequencies up to 75 mc.)

	CCS	
D.C. Plate Voltage[5]	5000	max. volts
D.C. Grid No. 2 Voltage	700	max. volts
D.C. Grid No. 1 Voltage	—500	max. volts
D.C. Plate Current	450	max. ma
Plate Input[5]	2250	max. watts
Plate Dissipation	500	max. watts
Grid No. 2 Dissipation[6]	65	max. watts
Grid No. 1 Dissipation	25	max. watts

Typical Operation

	CCS	CCS	CCS	CCS	
Frequency	60	60	60	60	mc
D.C. Plate Voltage	5000	5000	4000	4000	volts
D.C. Grid No. 2 Voltage	600	700	600	700	volts
D.C. Grid No. 1 Voltage	—200	—200	—200	—200	volts
D.C. Plate Current	440	440	450	450	ma
D.C. Grid No. 2 Current	80	75	90	85	ma
D.C. Grid No. 1 Current	35	25	39	27	ma
Driving Power	12	8	14	8.5	watts
Power Output	1760	1760	1410	1400	watts

[1]Instantaneously, during modulation peaks.

[4]Modulation essentially negative may be used if the positive peak of the envelope does not exceed 115 per cent of the carrier conditions.

Frequency	75	100	mc.
% of Max. Rated Plate Voltage—Class C Telegraphy	100	90	%
% of Max. Rated Plate Input Class C Telegraphy	100	80	%

[5]Maximum signal condition.

AMPEREX TUBE TYPE 6079/AX-9908

The 6079/AX-9908 is a four-electrode tube designed for use as a radio-frequency power amplifier, modulator and frequency multiplier. The anode is capable of dissipating 500 watts. The cathode is a thoriated-tungsten filament. Maximum ratings apply up to 75 megacycles. At reduced ratings it may be operated up to 100 megacycles.

GENERAL CHARACTERISTICS

ELECTRICAL DATA

Filament voltage	10 volts
Filament current	9.9 amps
Amplification factor G_2-G_1 Mu (plate current=120 ma)	9.5
Transconductance (Plate Current=120 ma)	7,000 micromhos
Peak cathode current[1]	5 amps
Direct Interelectrode Capacitances	
Grid No. 1 to Plate (max.)	0.25 $\mu\mu$f
Grid No. 1 to Filament	24 $\mu\mu$f
Plate to Filament	8.3 $\mu\mu$f

MECHANICAL DATA

Max. overall dimensions	
Length	8¼ inches
Diameter	4-21/32 inches
Mounting position	vertical with plate up or down
Maximum Bulb Temperature	250° C
Maximum Plate Seal Temperature[2]	220° C
Maximum Temperature Base Seals[2]	180° C

ACCESSORIES

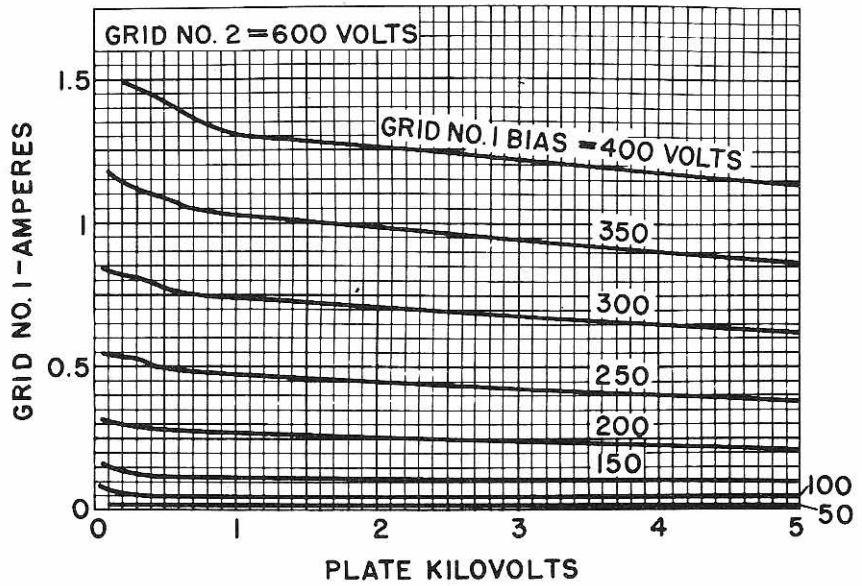
Plate Connector	Amperex #S-3702
Socket	Amperex #S-3703
Net Weight (approx.)	1 lb.

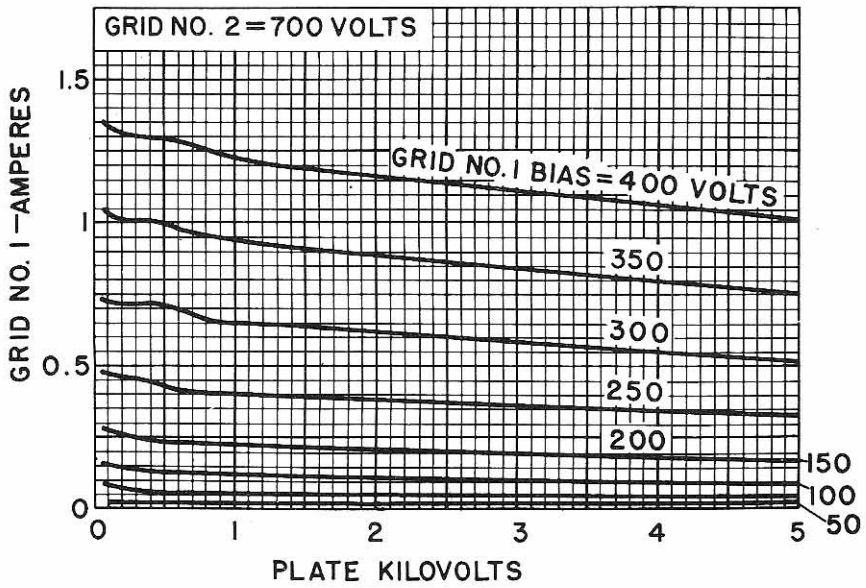
[1]Represents maximum usable cathode current for any condition of operation.

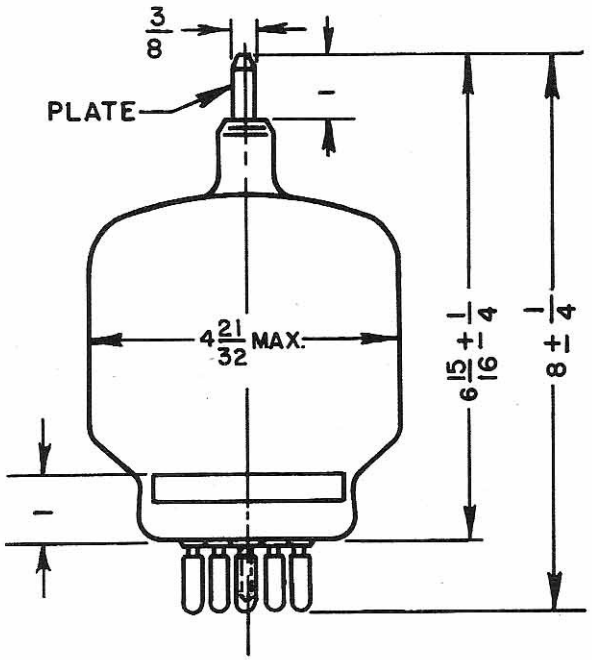
[2]To keep the temperature of the seals below these values, it may be necessary to direct an air flow of sufficient velocity to the seals.

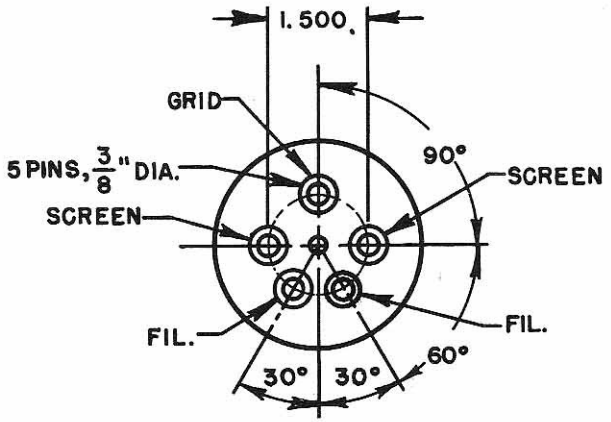
6079/AX-9908

6079/AX-9908









BASE — GIANT 5 PIN

6079/AX-9908

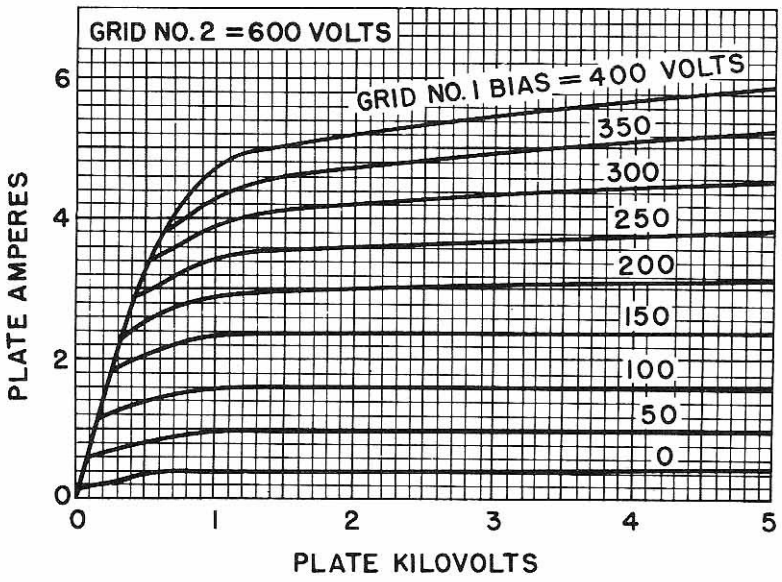

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PLATE AMPERES
PLATE KILOVOLTS
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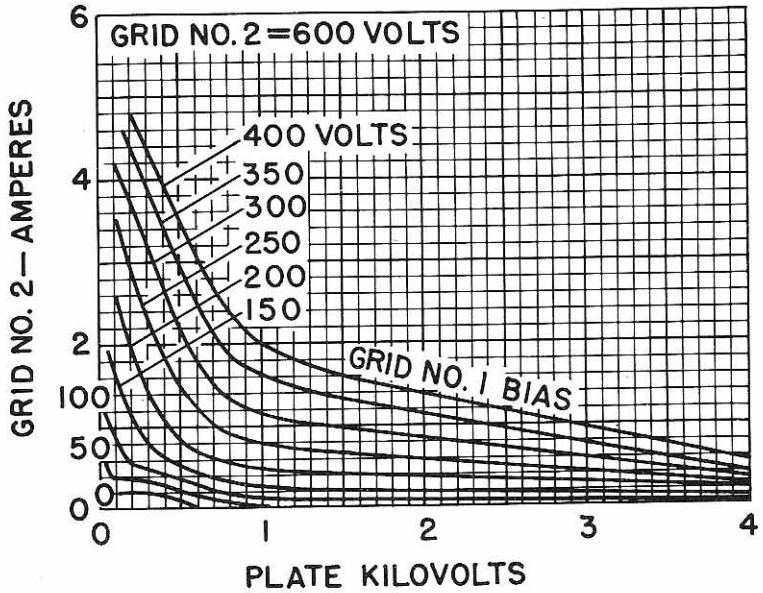
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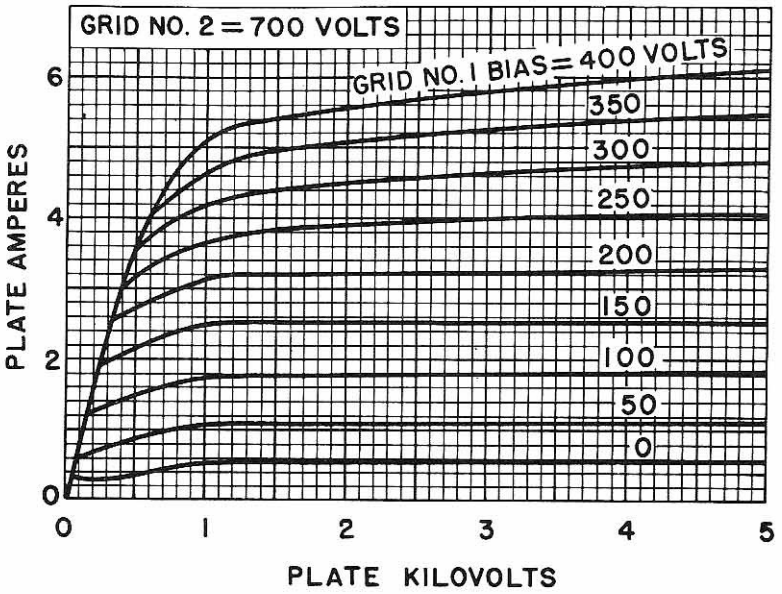
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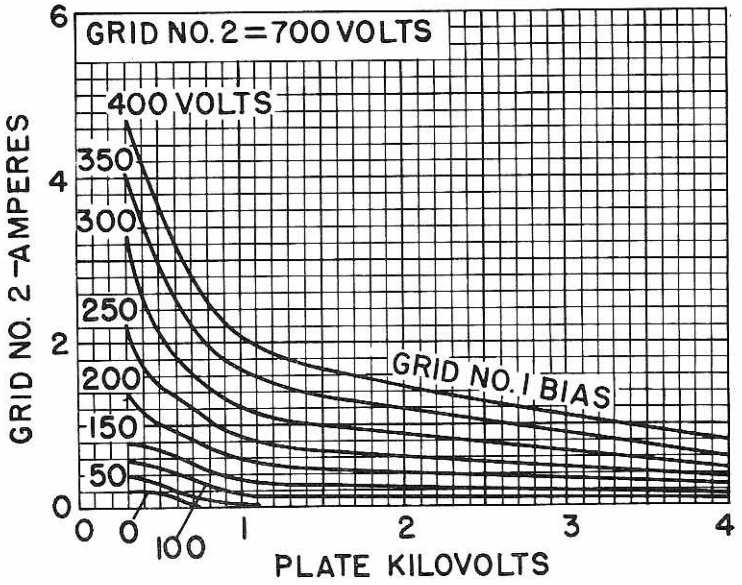
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PLATE KILOVOLTS
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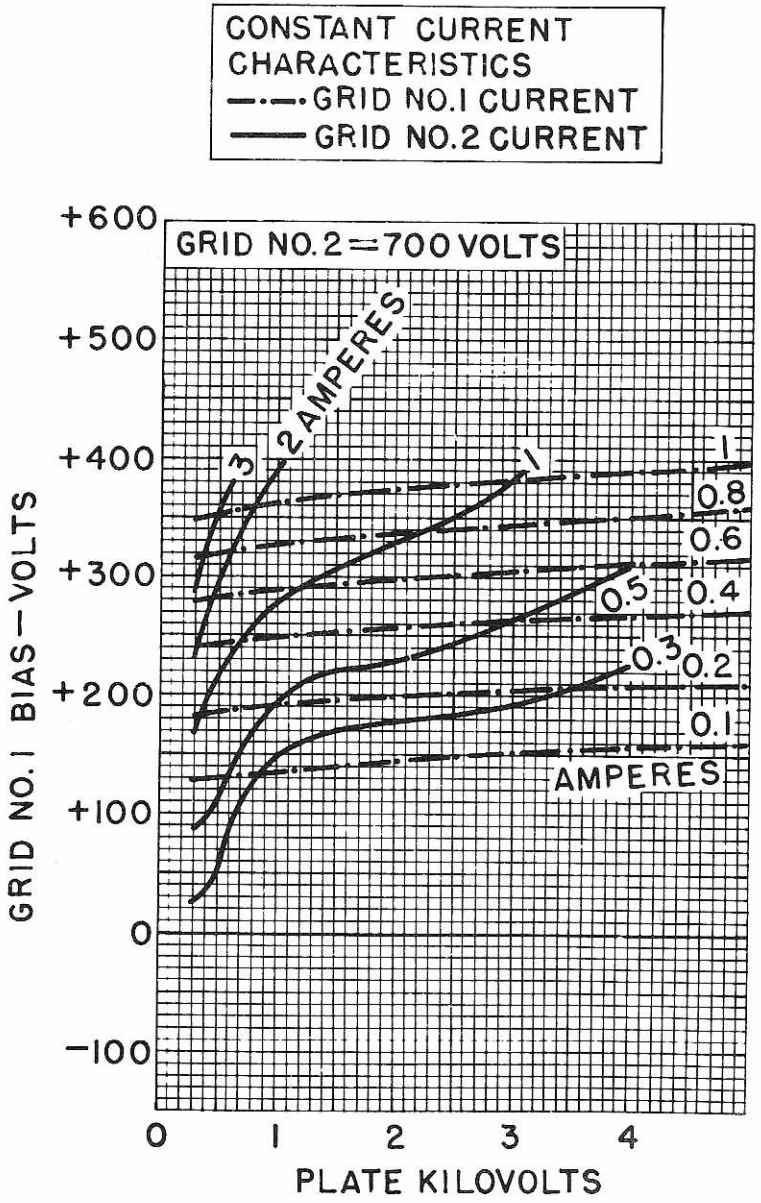
6079/AX-9908



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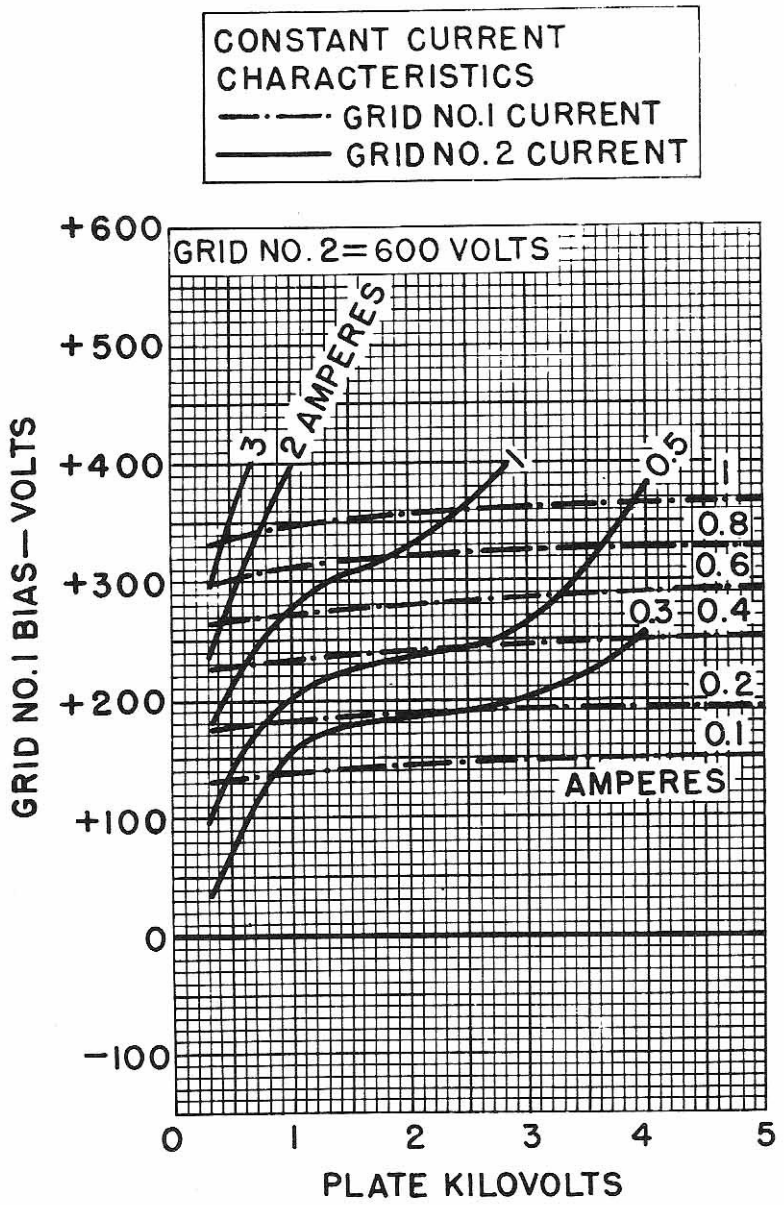

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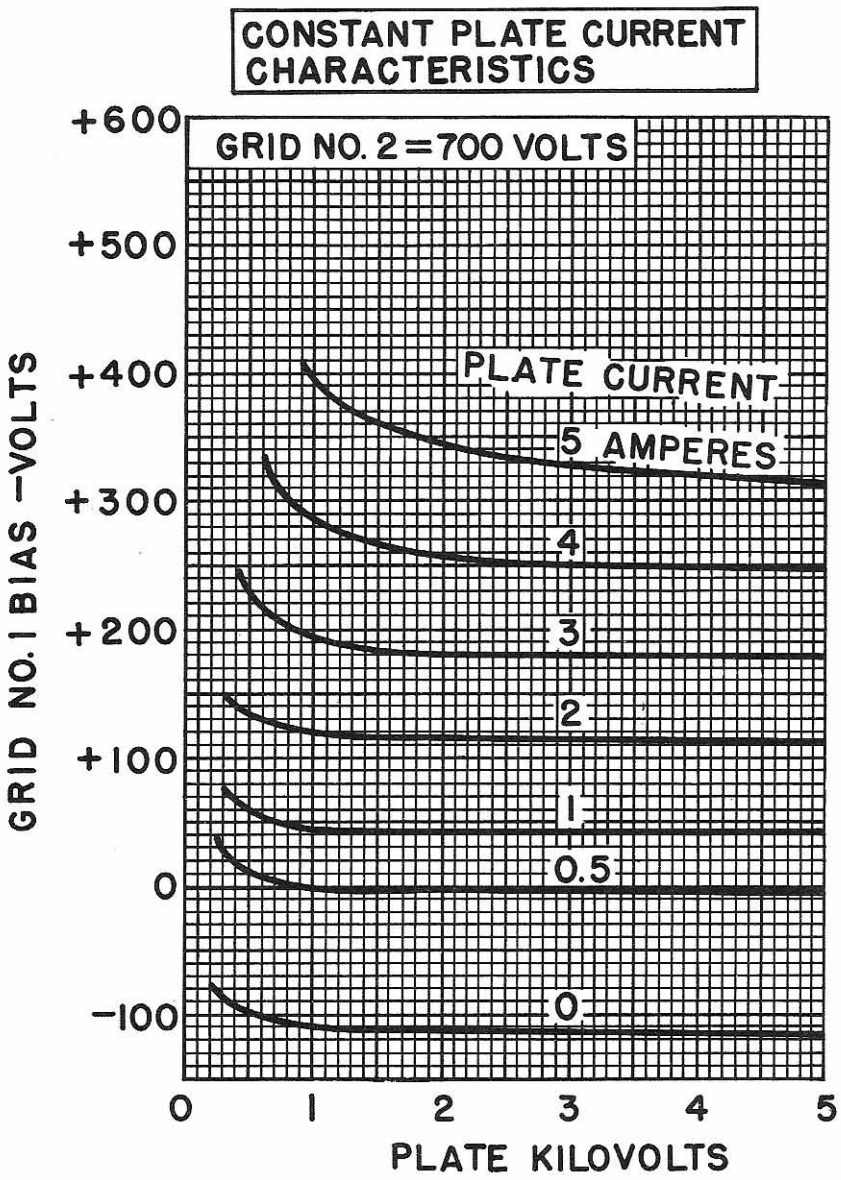

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