

**6 AQ8**

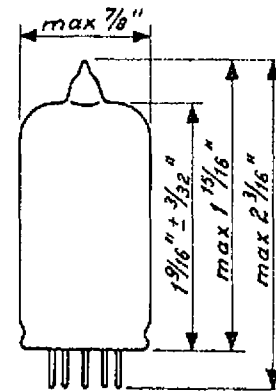
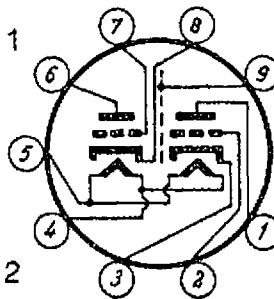
DOUBLE TRIODE for use as R.F. amplifier and self-oscillating mixer

**PHYSICAL SPECIFICATIONS**

Cathode	Coated unipotential
Base	Small button noval 9-pin
Maximum overall length	2 3/16 inches
Maximum seated height	1 15/16 inches
Bulb length excluding tip	1 9/16 ± 3/32 inches
Maximum diameter	7/8 inch
Mounting position	any
Basing connections- JETEC basing designation	9 DE

- Pin 1 - Plate
- Pin 2 - Grid
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Plate
- Pin 7 - Grid
- Pin 8 - Cathode
- Pin 9 - Internal shield

Triode section 1  
 Triode section 2



**GENERAL ELECTRICAL DATA**

Heater voltage	6.3 volts
Heater current	0.435 ampere

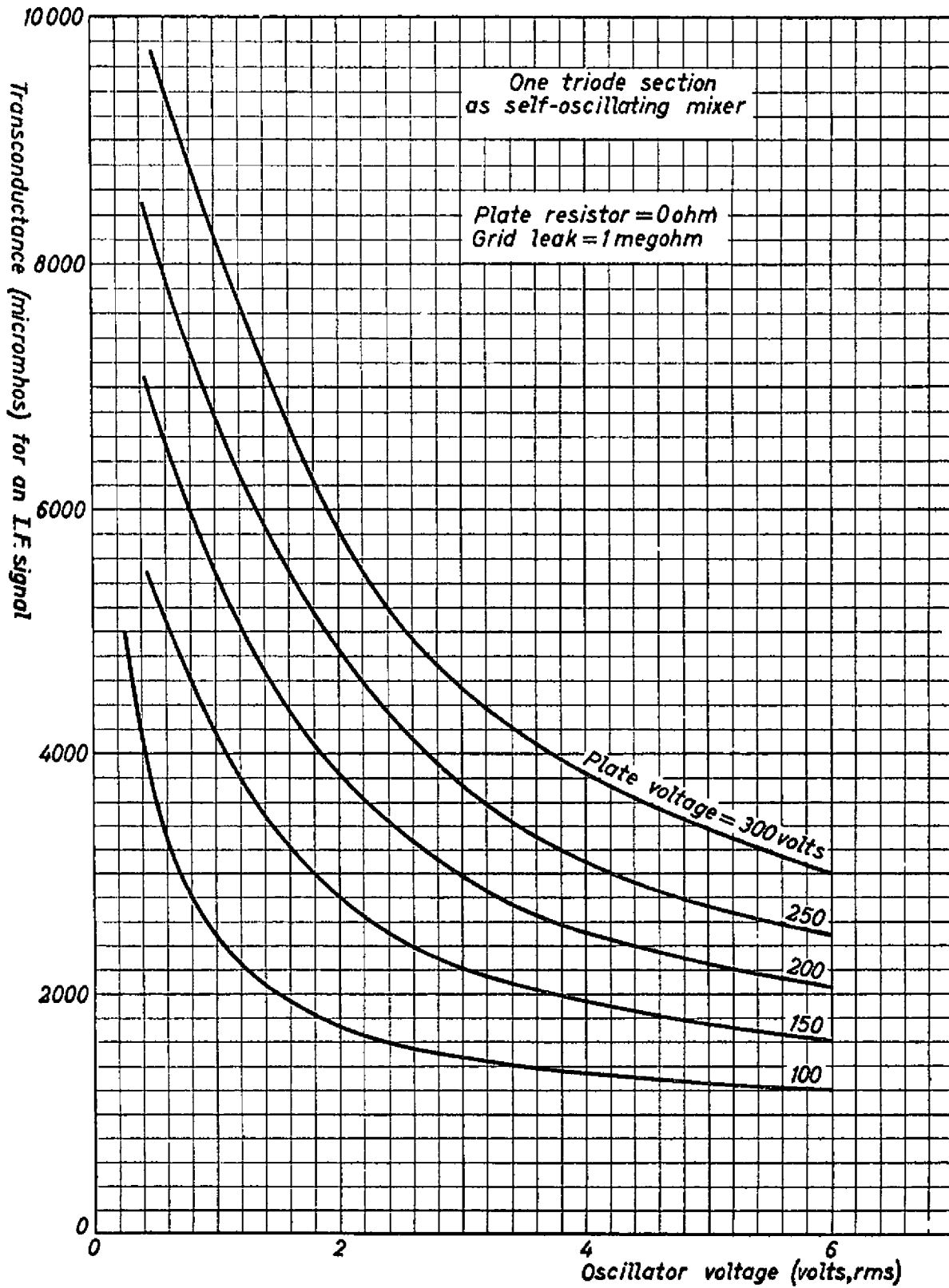
**Direct Interelectrode Capacitances**

Triode section 1

Plate to grid	1.5 μμF
Plate to cathode	0.18 μμF
Grid to cathode + heater + shield	3.0 μμF
Plate to cathode+ heater + shield	1.2 μμF
Plate to cathode+ heater + shield <sup>x</sup> )	1.9 μμF

<sup>x</sup>) With external shielding can with diameter of 0.886"

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## Triode section 2

Plate to grid	1.5 $\mu\mu\text{F}$
Plate to cathode	0.18 $\mu\mu\text{F}$
Grid to cathode + heater + shield	3.0 $\mu\mu\text{F}$
Plate to cathode + heater + shield	1.2 $\mu\mu\text{F}$
Plate to cathode + heater+shield*)	1.9 $\mu\mu\text{F}$

## Between triode section 1 and triode section 2

Plate to plate	max. 0.04 $\mu\mu\text{F}$
Plate to plate*)	max. 0.008 $\mu\mu\text{F}$
Grid to grid	max. 0.003 $\mu\mu\text{F}$
Plate section 1 to grid section 2	max. 0.008 $\mu\mu\text{F}$
Plate section 2 to grid section 1	max. 0.008 $\mu\mu\text{F}$
Plate section 1 to cathode section 2	max. 0.008 $\mu\mu\text{F}$
Plate section 2 to cathode section 1	max. 0.008 $\mu\mu\text{F}$
Grid section 1 to cathode section 2	max. 0.003 $\mu\mu\text{F}$
Grid section 2 to cathode section 1	max. 0.003 $\mu\mu\text{F}$

## Maximum ratings (design center values; each section)

Plate voltage	max. 300 volts
Plate voltage without current	max. 550 volts
Plate dissipation	max. 2.5 watts
Plate dissipation of both sections together	max. 4.5 watts
Cathode current	max. 15 mamps
Negative grid bias	max. 100 volts
External resistance between grid and cathode	max. 1 megohm
External resistance between cathode and heater	max. 20 000 ohms
Voltage between cathode and heater	max. 90 volts

## Typical characteristics (each section)

Plate voltage	250 volts
Negative grid bias	-2.3 volts
Plate current	10 mamps
Transconductance	5900 micromhos
Amplification factor	57

\*) With external shielding can with diameter of 0.886"

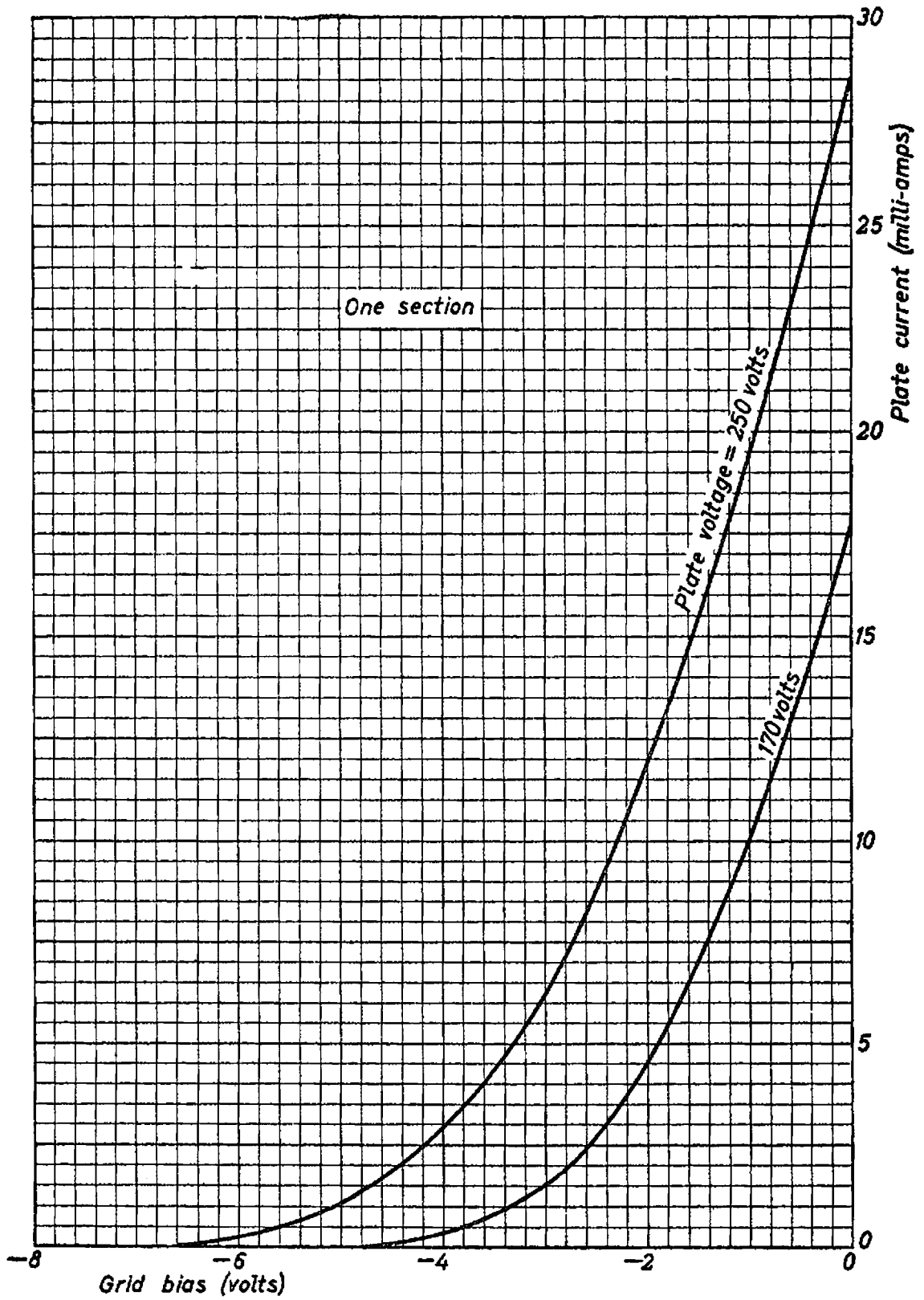
Operating characteristics as R.F. amplifier in FM/AM receivers

Supply voltage	250 volts
Plate series resistor	1800 ohms
Plate voltage	230 volts
Cathode resistor	200 ohms
Plate current	10 m amps
Negative grid bias	-2 volts
Transconductance	6000 micromhos
Internal resistance	9700 ohms
Input resistance at 100 Mc	6000 ohms
Equivalent noise resistance	500 ohms

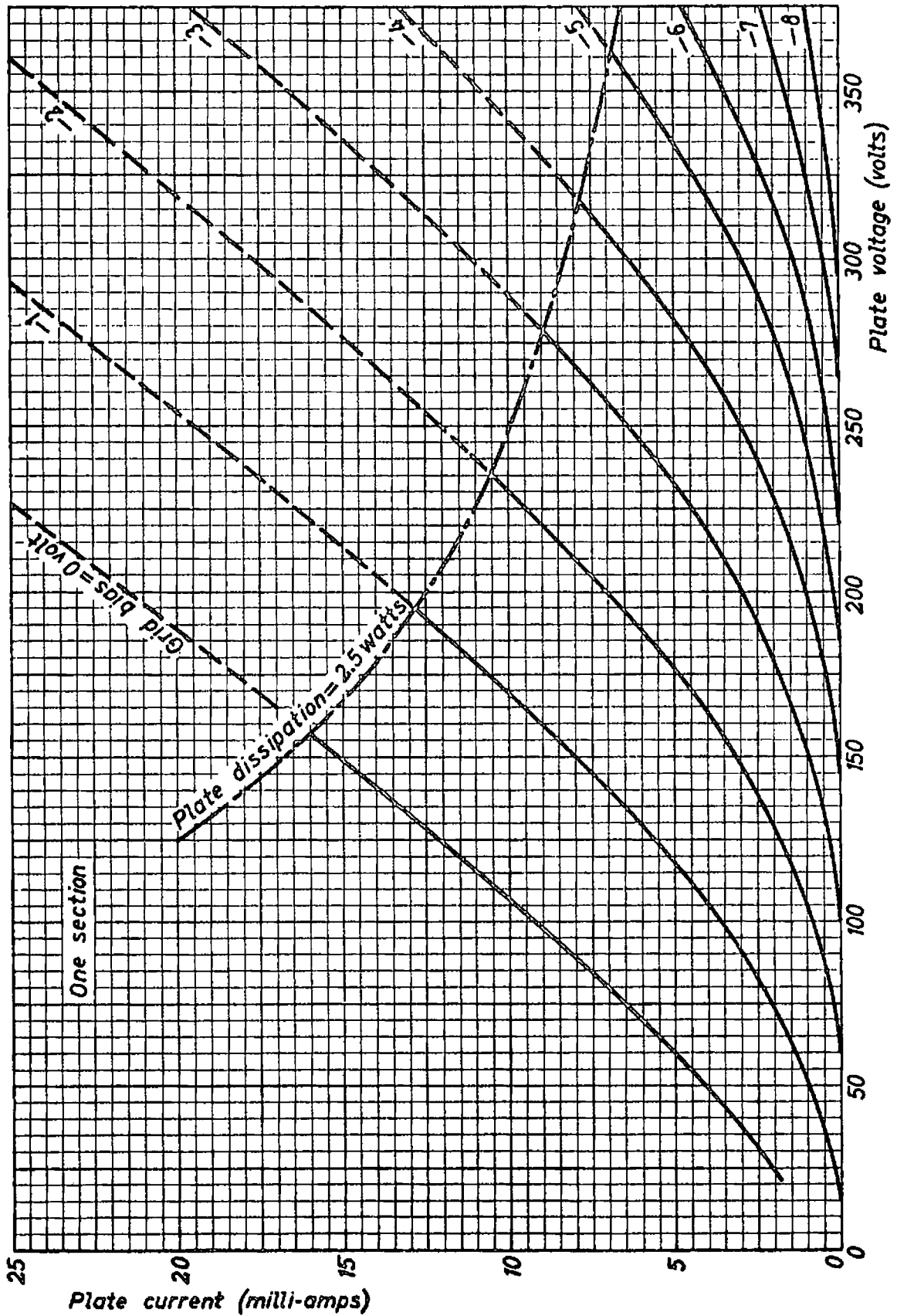
Operating characteristics as self-oscillating mixer in FM/AM receivers

Supply voltage	250 volts
Plate resistor	12000 ohms
Grid leak	1 megohm
Oscillator voltage	3 volts, rms
Plate current	5.2 m amps
Conversion conductance	2300 micromhos
Internal resistance	22 000 ohms
Input resistance at 100 Mc	15 000 ohms

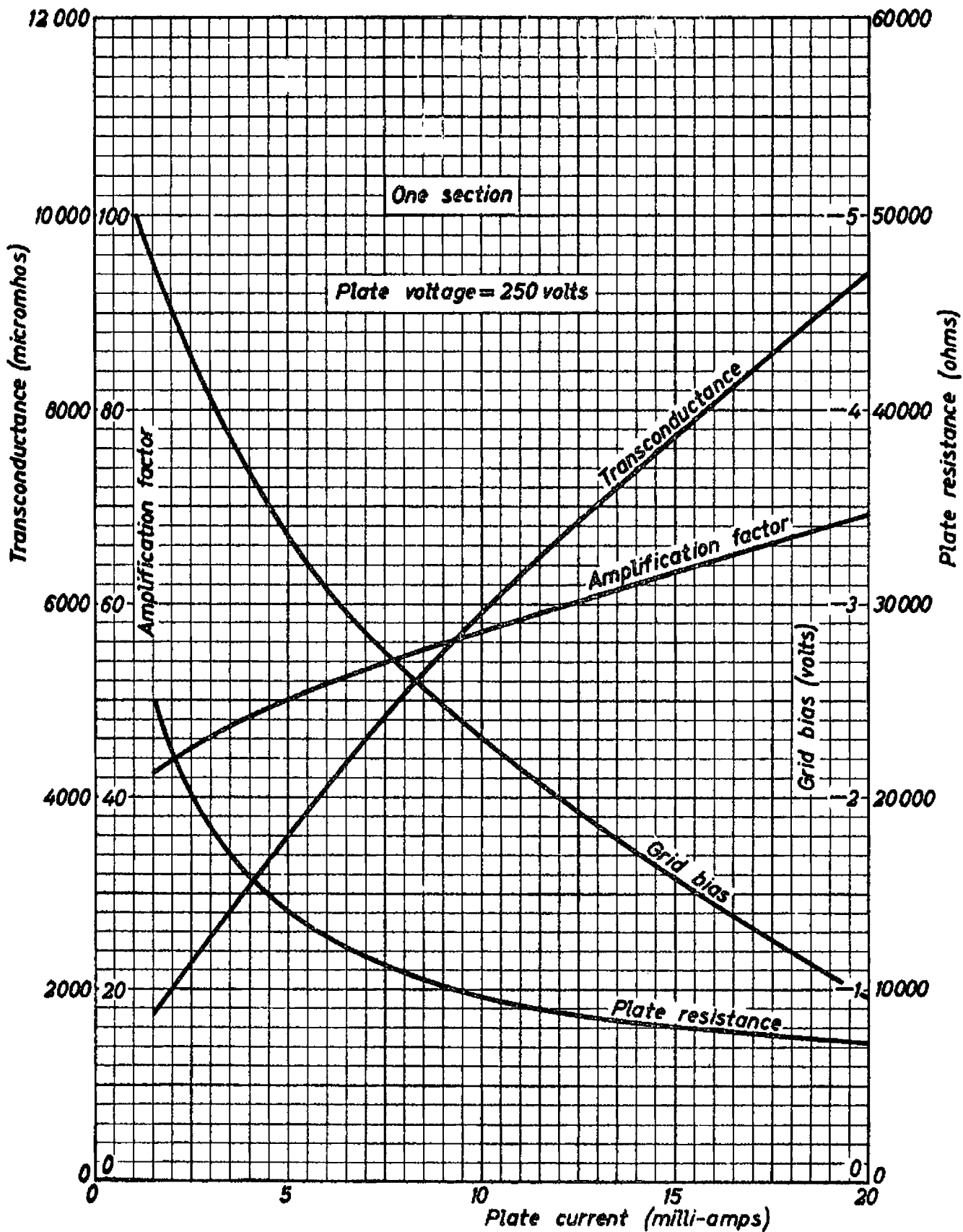
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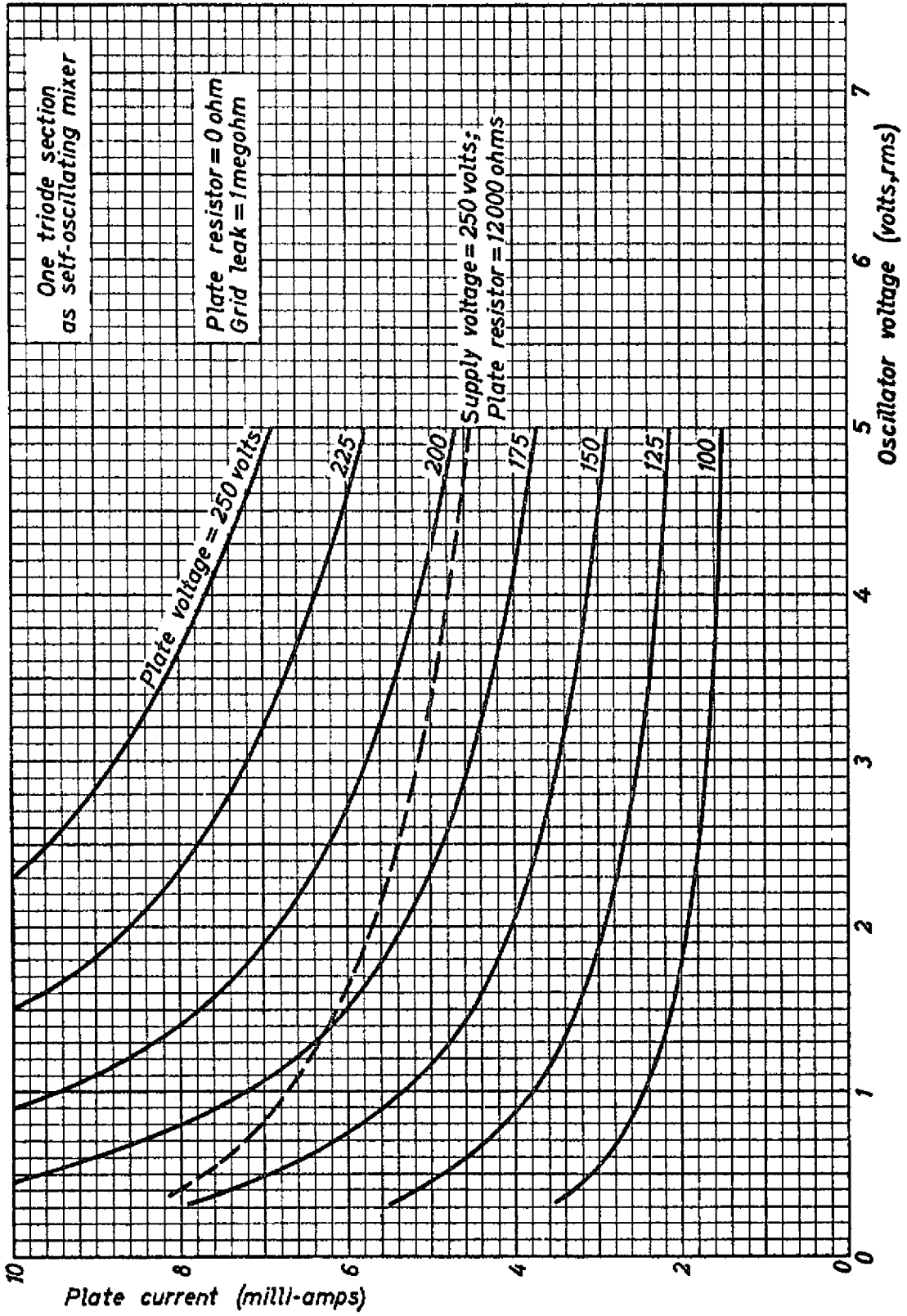
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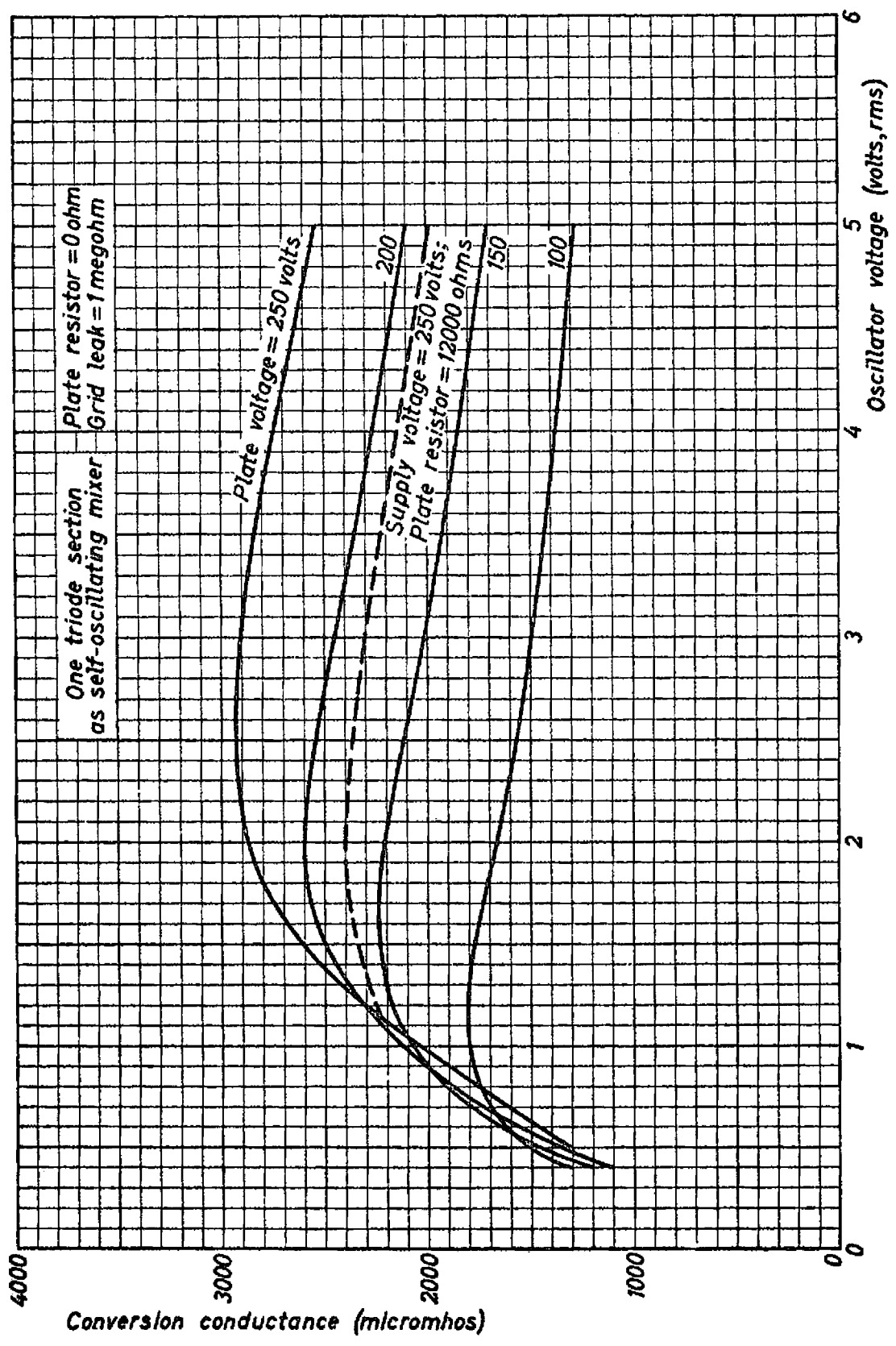


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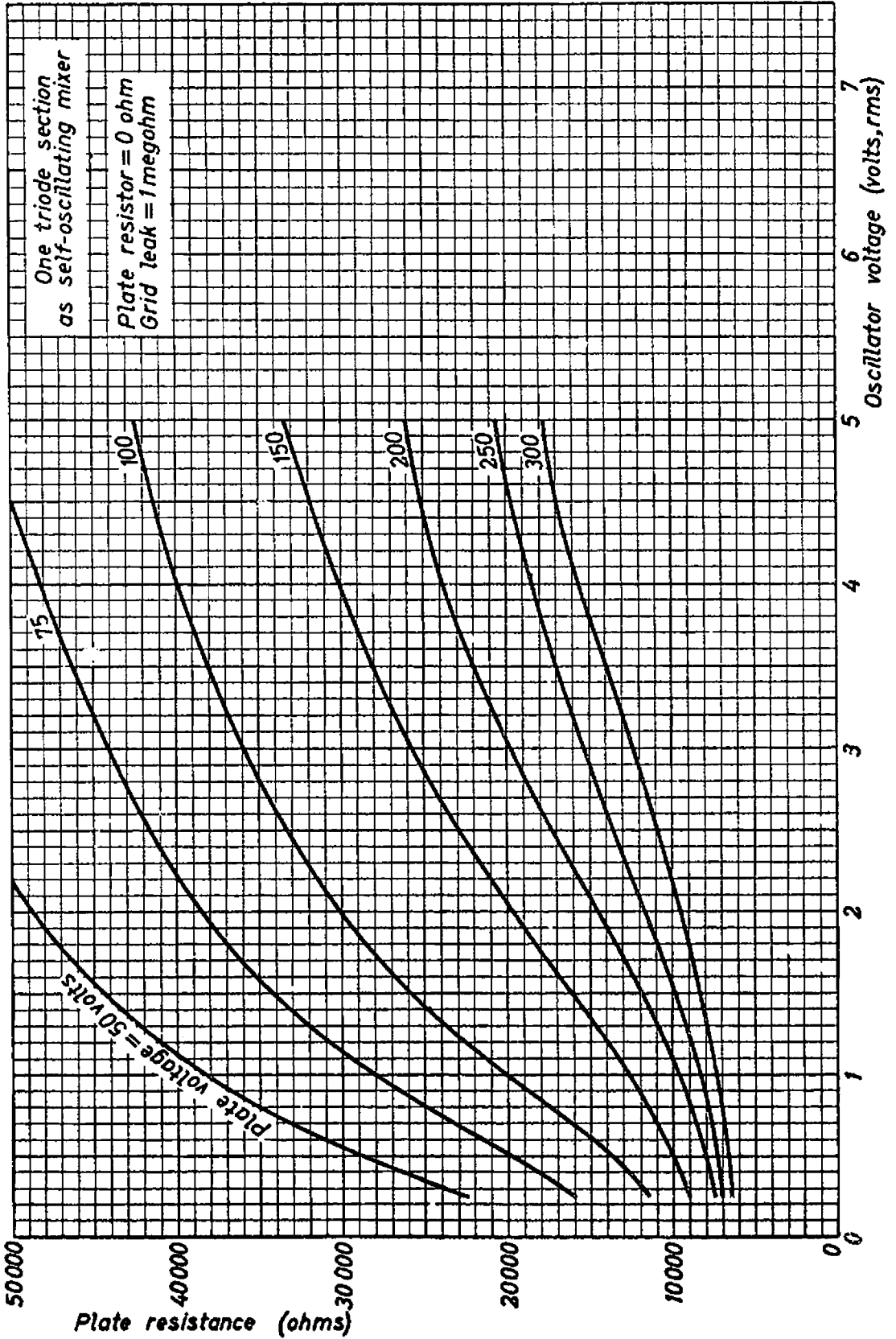




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