

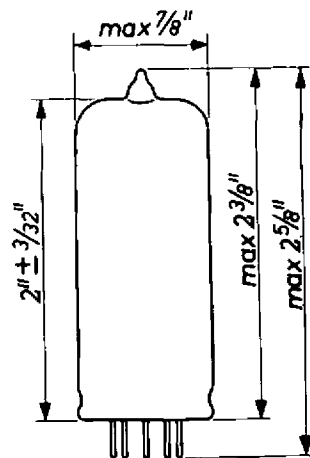
6DC8

DOUBLE DIODE REMOTE CUT-OFF PENTODE FOR USE AS R.F. or I.F. AMPLIFIER

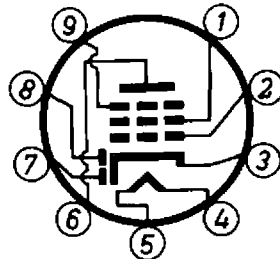
MECHANICAL DATA

Cathode	coated unipotential
Base	E9-1
Bulb	T6½
RETMA basing designation	9HE
Mounting position	any

TUBE OUTLINE



BOTTOM VIEW OF BASE



BASE PIN No.

- 1 Grid No.2
- 2 Grid No.1
- 3 Cathode, internal shield
- 4 Heater
- 5 Heater
- 6 Plate
- 7 Diode No.1 plate
- 8 Diode No.2 plate
- 9 Grid No.3

ELEMENT

HEATER DATA

Heater voltage	6.3 volts
Heater current	300 mamps

DIRECT INTERELECTRODE CAPACITANCES

Pentode section

Plate to all other elements except grid No.1	5.2 $\mu\mu\text{F}$
Grid No.1 to all other elements except plate	5.0 $\mu\mu\text{F}$
Plate to grid No.1	max. 0.0025 $\mu\mu\text{F}$
Grid No.1 to heater	max. 0.05 $\mu\mu\text{F}$

Diode section

Diode No.1 plate to all other elements	2.5 $\mu\mu\text{F}$
Diode No.2 plate to all other elements	2.5 $\mu\mu\text{F}$
Diode No.1 plate to diode No.2 plate	max. 0.25 $\mu\mu\text{F}$
Diode No.1 plate to heater	max. 0.015 $\mu\mu\text{F}$
Diode No.2 plate to heater	max. 0.003 $\mu\mu\text{F}$

DIRECT INTERELECTRODE CAPACITANCES (continued)Between pentode and diode sections

Diode No.1 plate to grid No.1	max.	0.0008 $\mu\mu\text{F}$
Diode No.2 plate to grid No.1	max.	0.001 $\mu\mu\text{F}$
Diode No.1 plate to pentode plate	max.	0.15 $\mu\mu\text{F}$
Diode No.2 plate to pentode plate	max.	0.025 $\mu\mu\text{F}$

MAXIMUM RATINGS (Design Center Values)Pentode section

Plate voltage	300 volts max.*)
Plate voltage without current	550 volts max.
Plate dissipation	2.25 watts max.
Grid No.2 voltage at a plate current higher than 8 mamps	125 volts max.
Grid No.2 voltage at a plate current less than 4 mamps	300 volts max.*)
Grid No.2 dissipation	0.45 watt max.
Cathode current	16.5 mamps max.
Grid No.3 circuit resistance	10 000 ohms max.
Grid No.1 circuit resistance	3 megohms max.
Grid No.1 circuit resistance with grid current biasing	22 megohms max.
Voltage between cathode and heater	100 volts max.
Circuit resistance between cathode and heater	20 000 ohms max.

Diode section (each diode)

Peak inverse plate voltage	200 volts max.
Plate current	0.8 mamps max.
Peak plate current	5 mamps max.

*) When the tube is fed from a storage battery and vibrator the max. permissible value of the positive voltages is 250 volts

TYPICAL CHARACTERISTICS

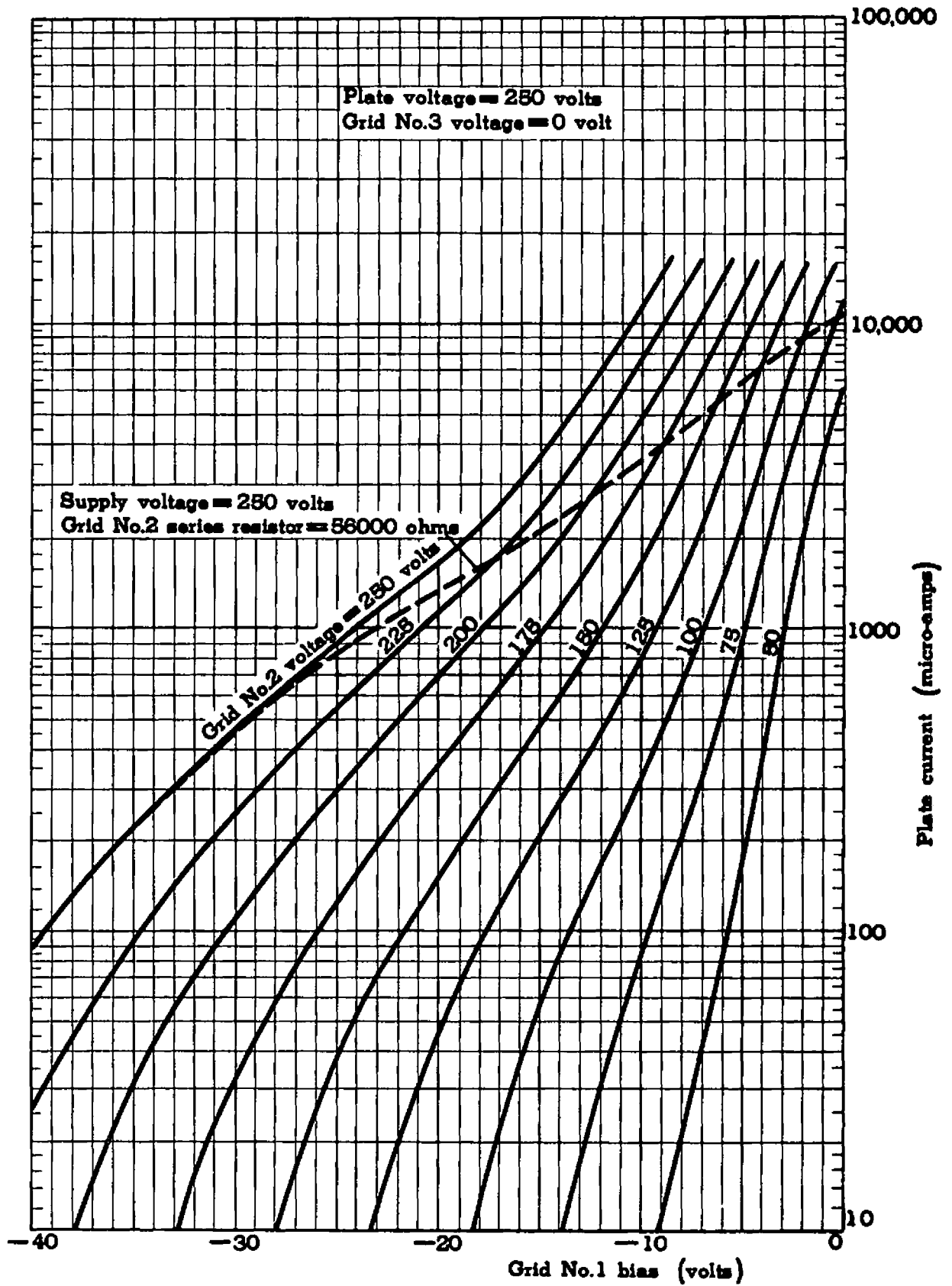
Plate voltage	250	250	200	170 volts
Grid No.2 voltage	100	80	100	100 volts
Grid No.3 voltage	0	0	0	0 volt
Grid No.1 voltage	-2	-1 [*])	-1.5	-1 [*])volt
Plate current	9	9	11	12 mamps
Grid No.2 current	2.7	2.7	3.3	4.0 mamps
Transconductance	3800	4500	4500	5000 μ mhos
Plate resistance	1.0	0.9	0.6	0.4 megohm
Amplification factor of grid No.2 with respect to grid No.1	20	20	20	20

OPERATING CONDITIONS as R.F. or I.F. amplifier

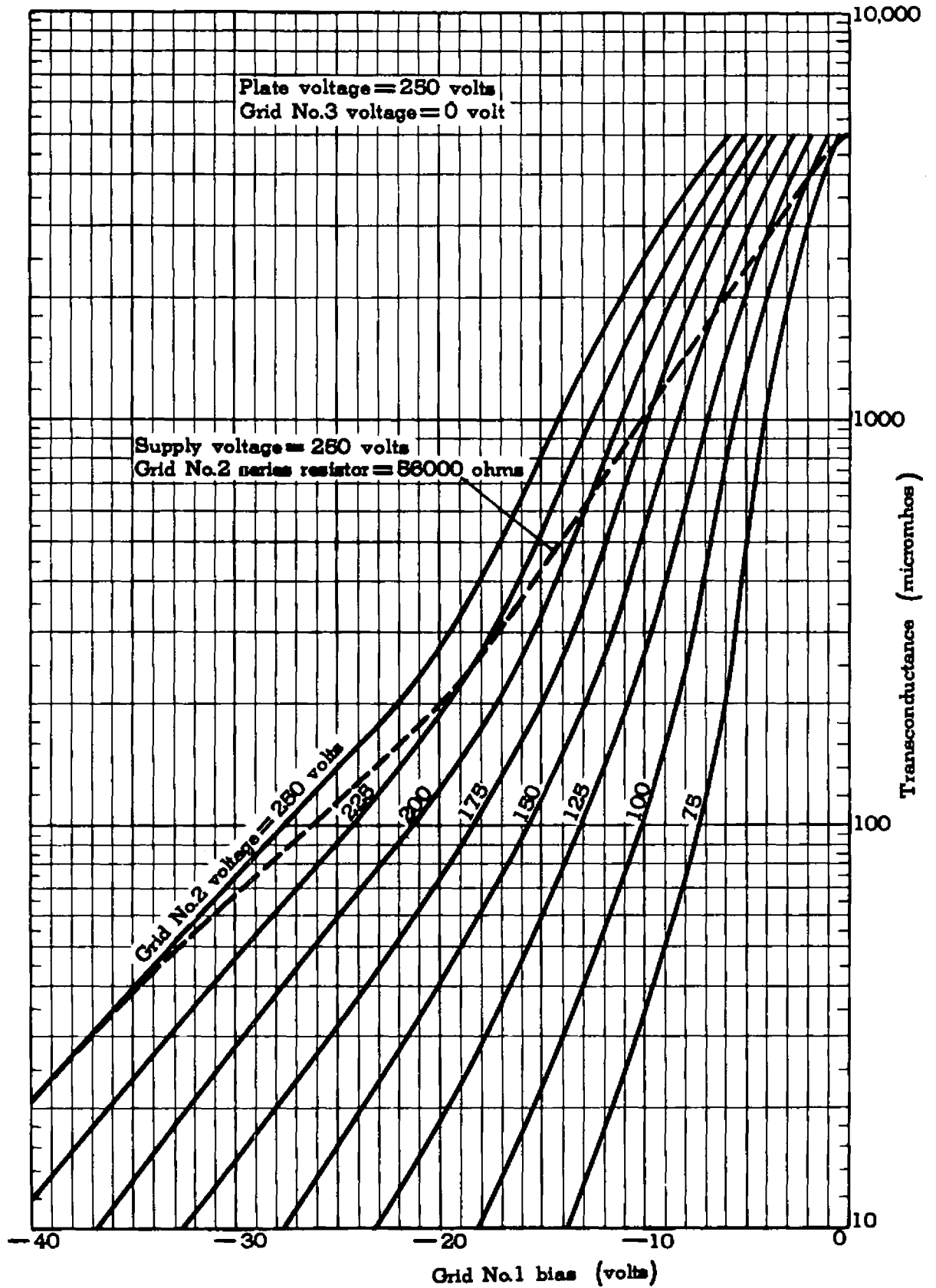
Plate and supply voltage	250	200	250 volts
Grid No.3 voltage	0	0	0 volt
Grid No.2 series resistor	56 000	30 000	62 000 ohms
Grid No.1 voltage	-2.0	-1.5	-1.0 [*])volt
Plate current	9	11	9 mamps
Grid No.2 current	2.7	3.3	2.7 mamps
Plate resistance	1.0	0.6	0.9 megohm
Transconductance	3800	4500	4500 μ mhos
Transconductance at grid No.1 voltage = -20 volts	200	120	200 μ mhos

^{*}) In this cas grid current may occur. If this is not permissible, the negative grid bias should be increased to a value of 1.5 volts at least

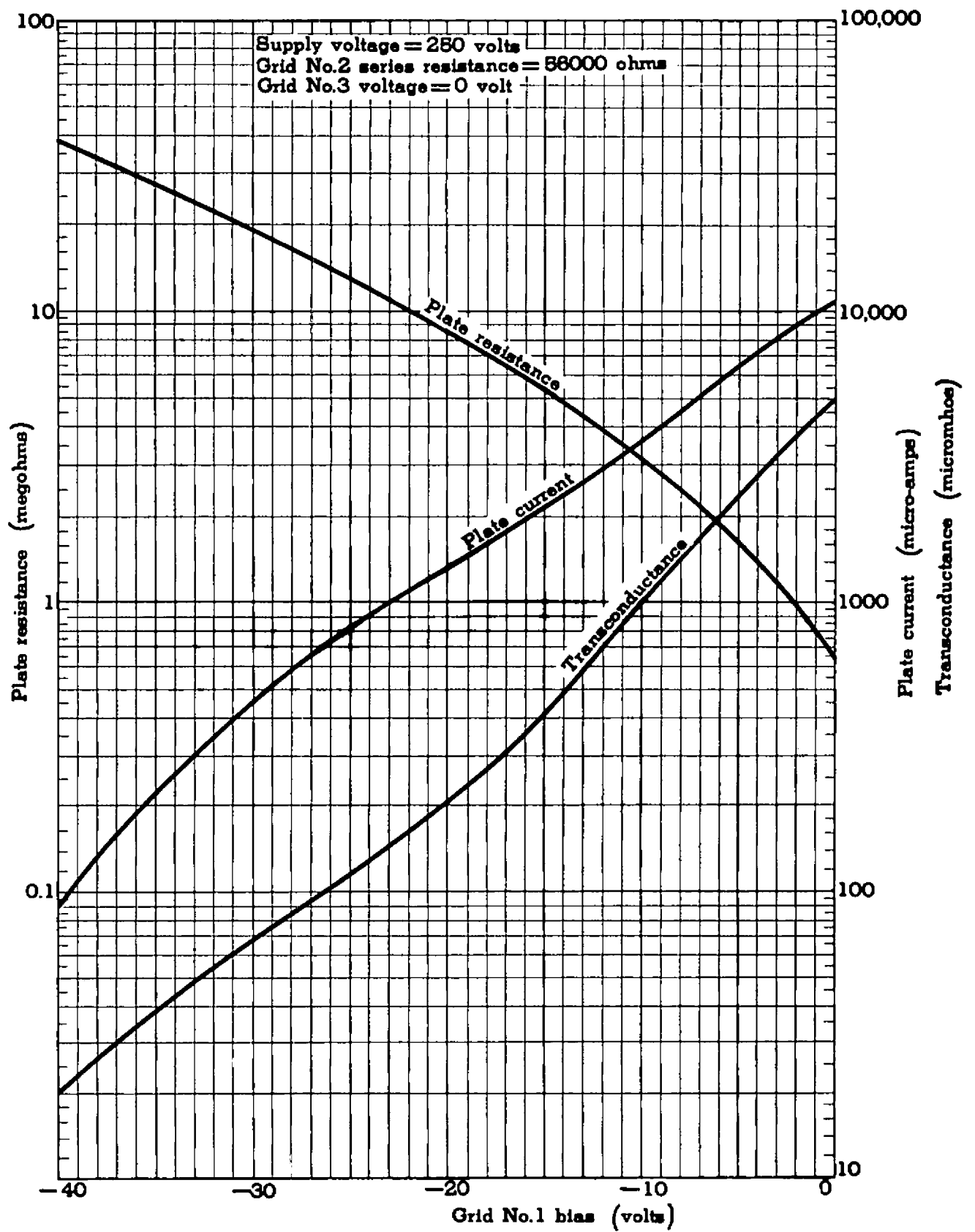
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