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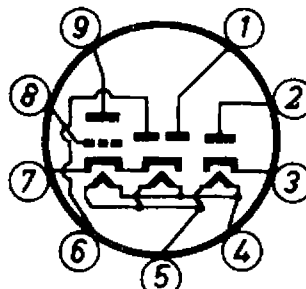
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TRIPLE DIODE TRIODE for use in F.M. or AM/FM broadcast receivers and for video and audio signal detection in television receivers

PHYSICAL SPECIFICATIONS

Cathode	Coated unipotential
Base	Small button noval 9-pin
Maximum overall length	2 5/8 inches
Maximum seated height	2 3/8 inches
Bulb length excluding tip	2±3/32 inches
Maximum diameter	7/8 inch
Mounting position	any
Basing connections - JETEC basing designation	9 E

- Pin 1 - Diode plate No.3
- Pin 2 - Diode plate No.2
- Pin 3 - Diode cathode No.2
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Diode plate No.1
- Pin 7 - Cathode of triode and diodes No.1 and 3, internal shield
- Pin 8 - Triode grid
- Pin 9 - Triode plate



GENERAL ELECTRICAL DATA

Heater voltage	6.3 volts
Heater current	0.45 ampere

Direct Interelectrode Capacitances

Diode sections

Diode plate No.1 to all other elements	0.8 μμF
Diode plate No.2 to all other elements	8.7 μμF
Diode plate No.3 to all other elements	4.3 μμF
Diode cathode No.2 to all other elements	6.3 μμF
Diode plate No.1 to heater	max. 0.25 μμF
Diode plate No.3 to heater	max. 0.10 μμF
Diode cathode No.2 to heater	4 μμF

6AK8**PHILIPS**Direct Interelectrode Capacitances (continued)

Triode Section

Grid to all other elements	1.9 $\mu\mu\text{F}$
Plate to all other elements	1.6 $\mu\mu\text{F}$
Plate to grid	2.2 $\mu\mu\text{F}$
Grid to heater	max. 0.04 $\mu\mu\text{F}$

Between diode and triode sections

Grid to diode plate No.1	max. 0.1 $\mu\mu\text{F}$
Grid to diode cathode No.2	max. 0.01 $\mu\mu\text{F}$
Grid to diode plate No.3	max. 0.02 $\mu\mu\text{F}$
Triode plate to diode plate No.1	max. 0.2 $\mu\mu\text{F}$
Triode plate to diode cathode No.2	max. 0.2 $\mu\mu\text{F}$
Triode plate to diode plate No.3	max. 0.2 $\mu\mu\text{F}$

Maximum ratings (design center values)

Diode sections

Peak inverse voltage at diode No.1	350 volts
Average current of diode No.1	1 m amp
Peak current of diode No.1	6 m amps
Peak inverse voltage of diode No.2	350 volts
Average current of diode No.2	10 m amps
Peak current of diode No.2	75 m amps
Peak inverse voltage of diode No.3	350 volts
Average current of diode No.3	10 m amps
Peak current of diode No.3	75 m amps

Triode section

Plate voltage	300 volts
Plate voltage without current	550 volts
Plate dissipation	1 watt
Cathode current	5 m amps
Grid circuit resistance	\neq 3 megohms
Grid current starting point. (Grid voltage at grid current = +0.3 μ amp)	-1.3 volts
External resistance between heater and cathode	20,000 ohms
Voltage between heater and cathode	150 volts
\neq With grid current biasing	max. 22 megohms

N.V. PHILIPS' GLOEILAMPENFABRIEKEN, Eindhoven, Holland.

Typical characteristics of the diode sections

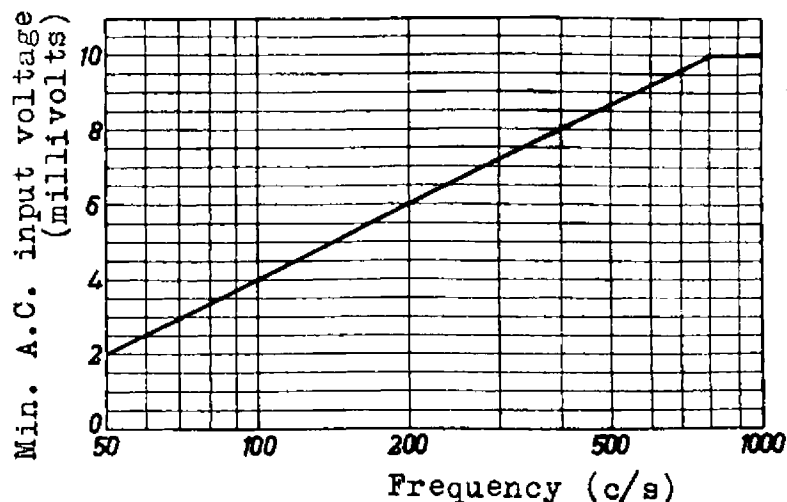
Plate resistance of diode No.1		
at plate voltage = +10 volts	6250 ohms	
Plate resistance of diode No.2		
at plate voltage = +5 volts	200 ohms	
Plate resistance of diode No.3		
at plate voltage = +5 volts	200 ohms	
Ratio of plate resistances of diode		
No.2 to diode No.3 or vice versa	max. 1.5	

Typical characteristics of the triode section

Plate voltage	100	250 volts
Grid bias	-1	-3 volts
Plate current	0.8	1.0 m amp
Transconductance	1.3	1.2 micromhos
Amplification factor	70	70
Plate resistance	54,000	58,000 ohms

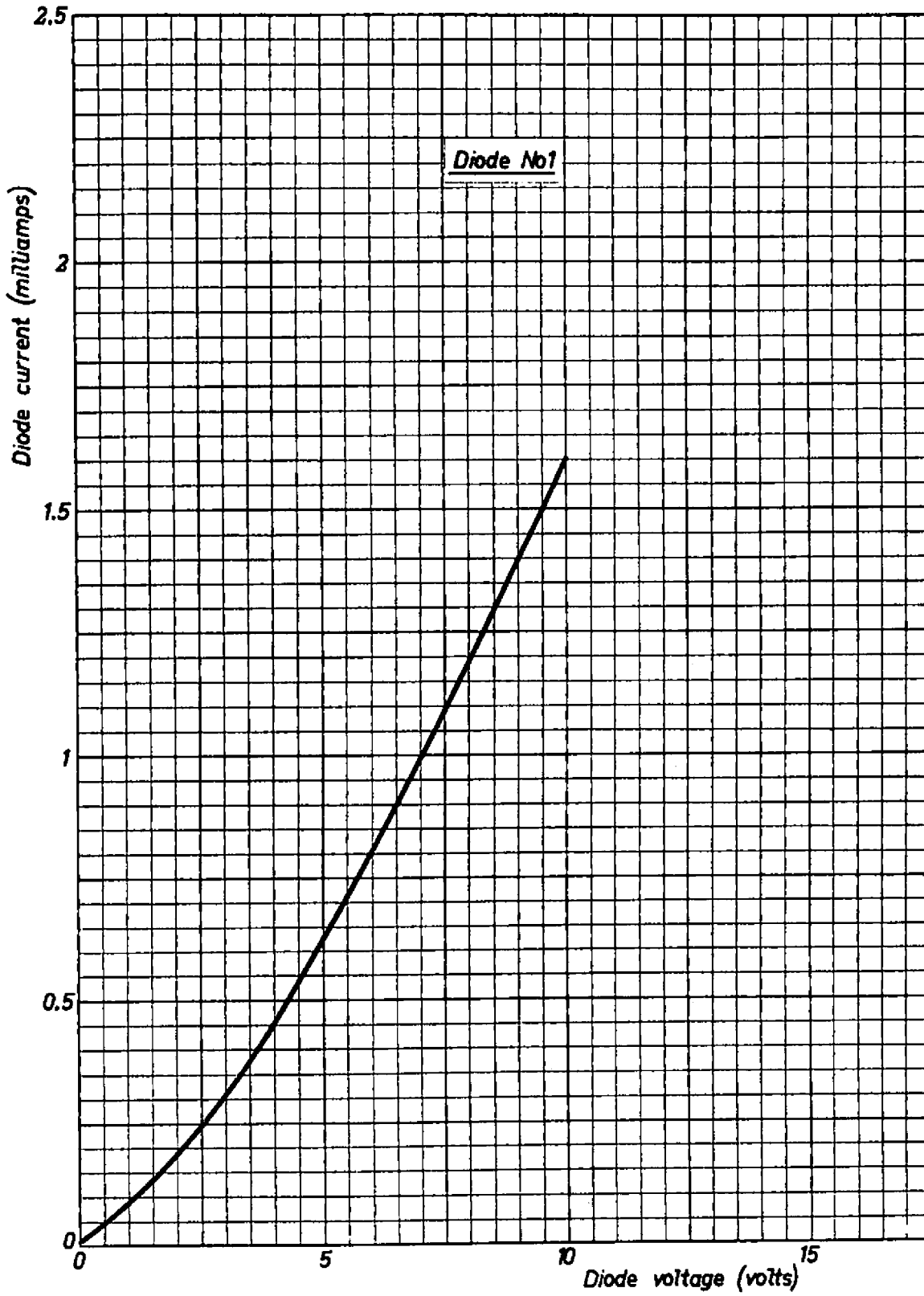
A.F. Amplifier

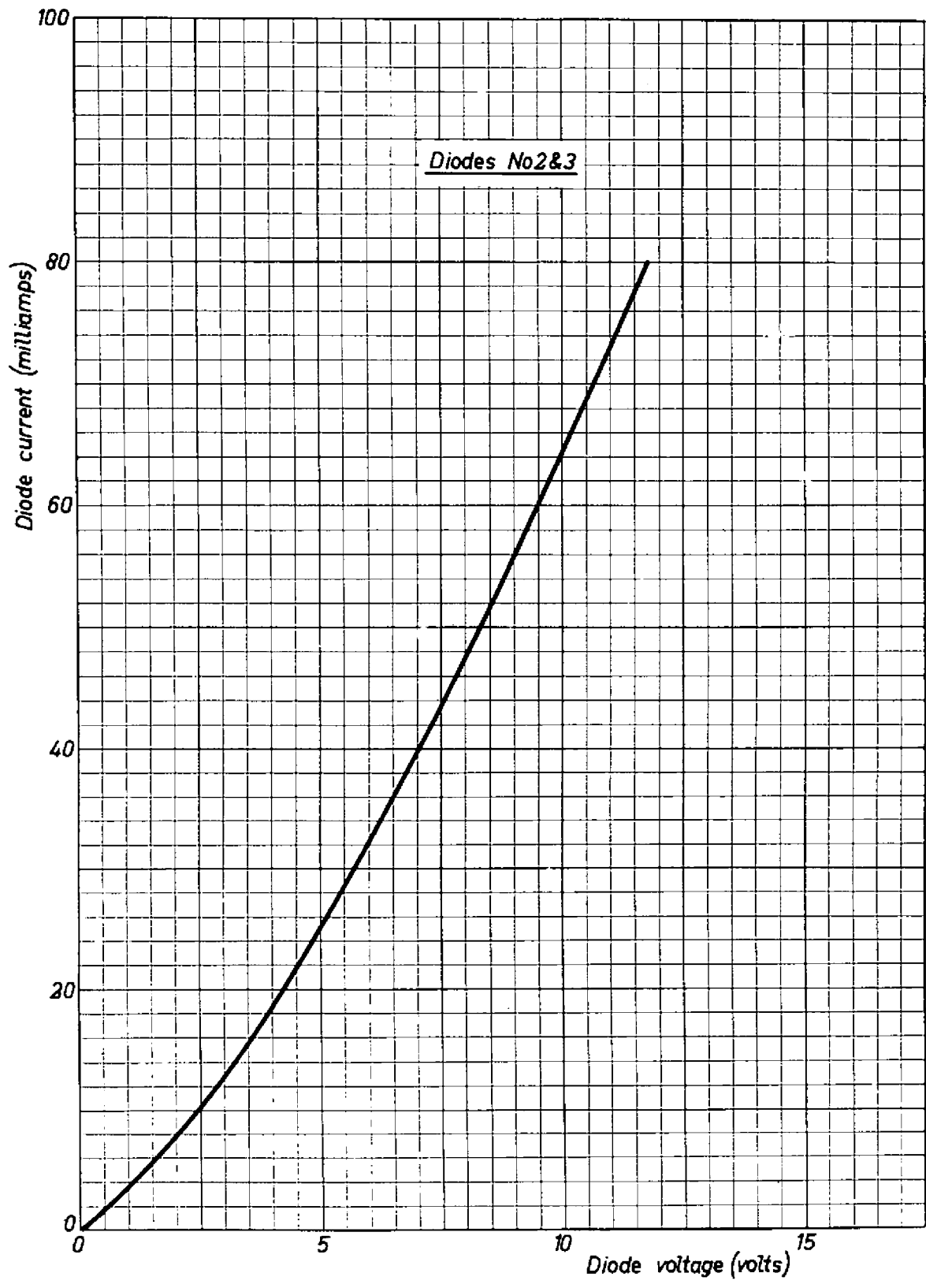
The triode section of this tube can be used without special precautions against microfonic effect in circuits in which the A.C. input voltage is higher than 10 millivolts for an output of 50 milliwatts of the output tube at frequencies of 800 c/s and higher. At lower frequencies the sensitivity may be increased according to the figure below.



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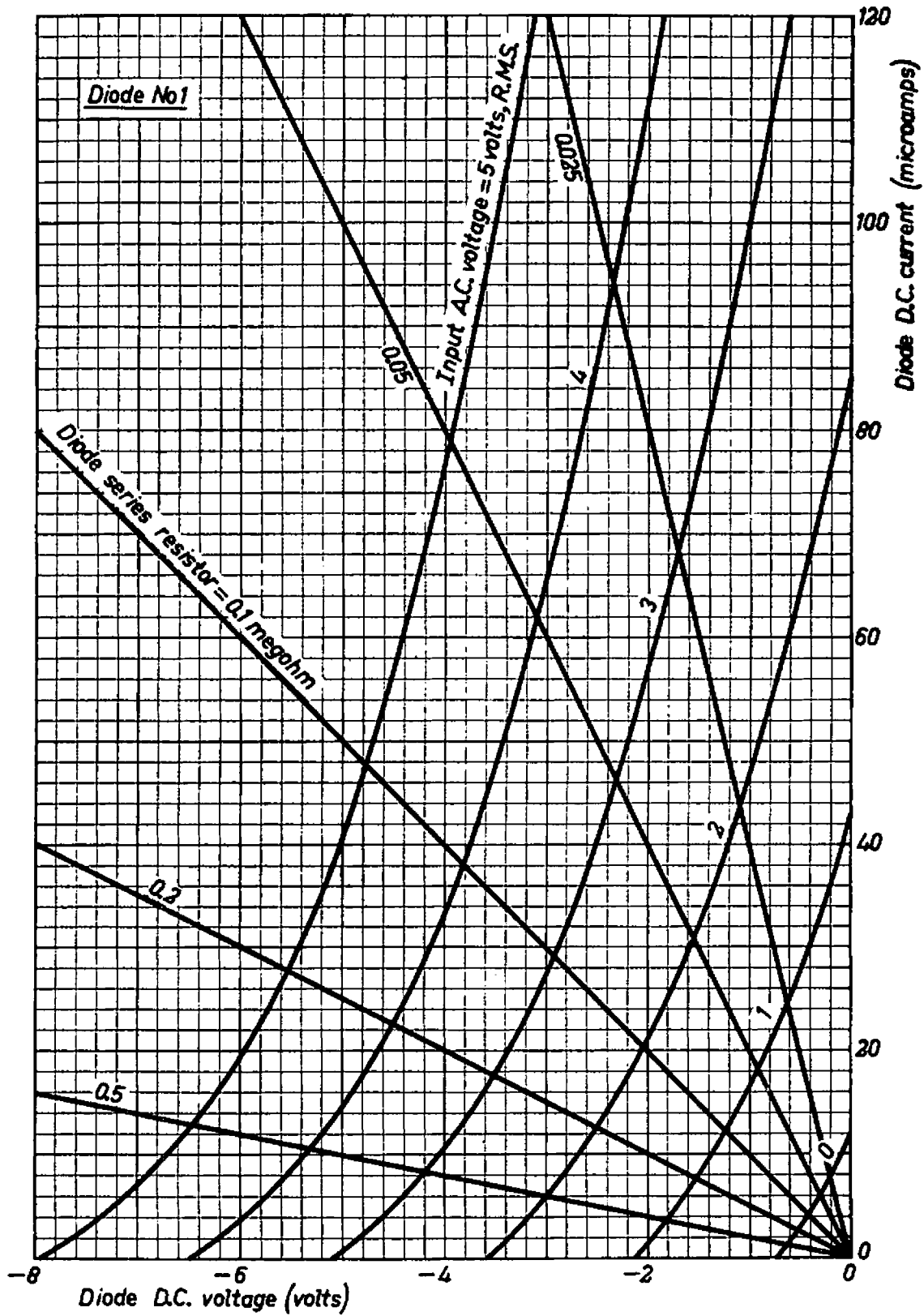
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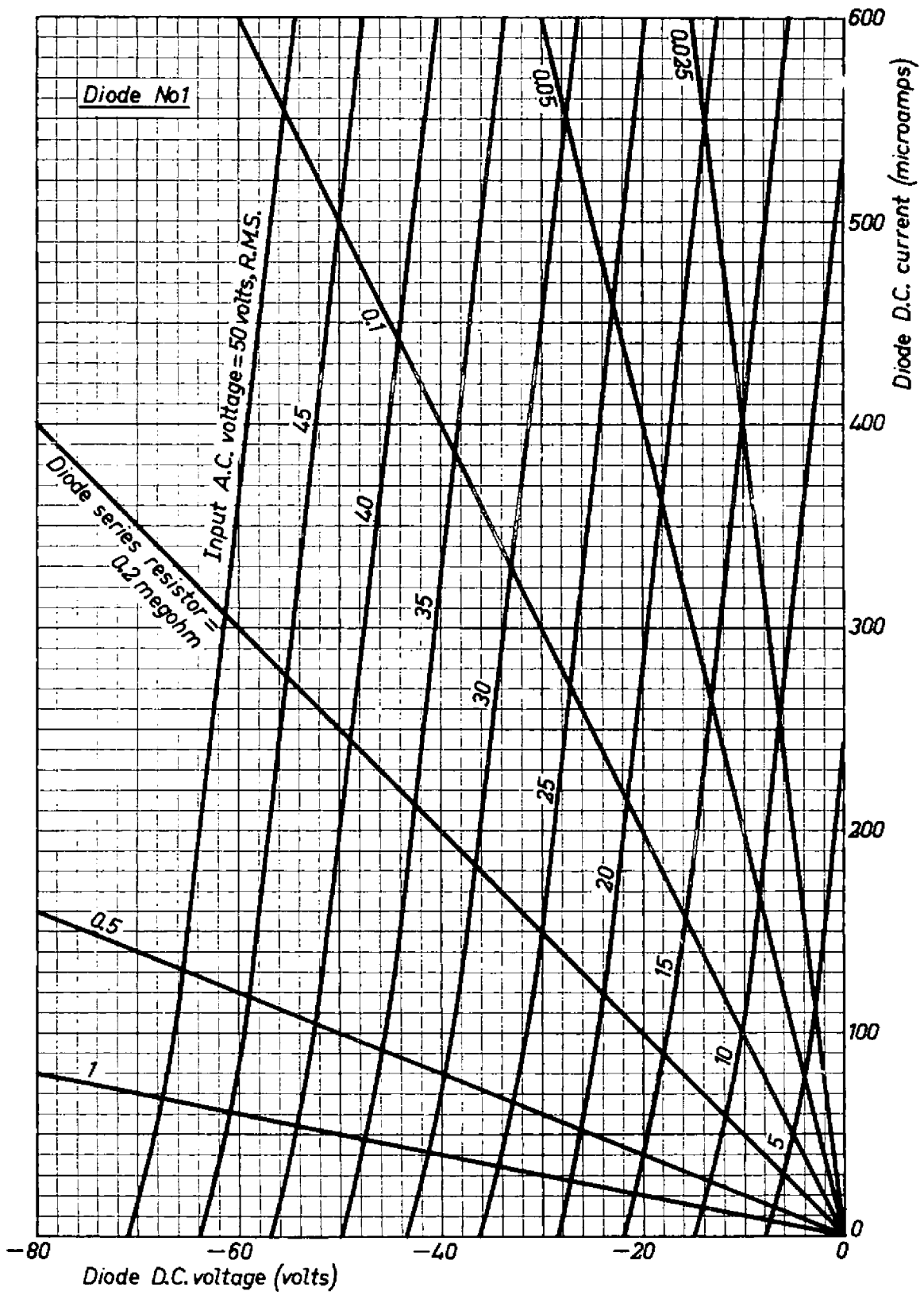




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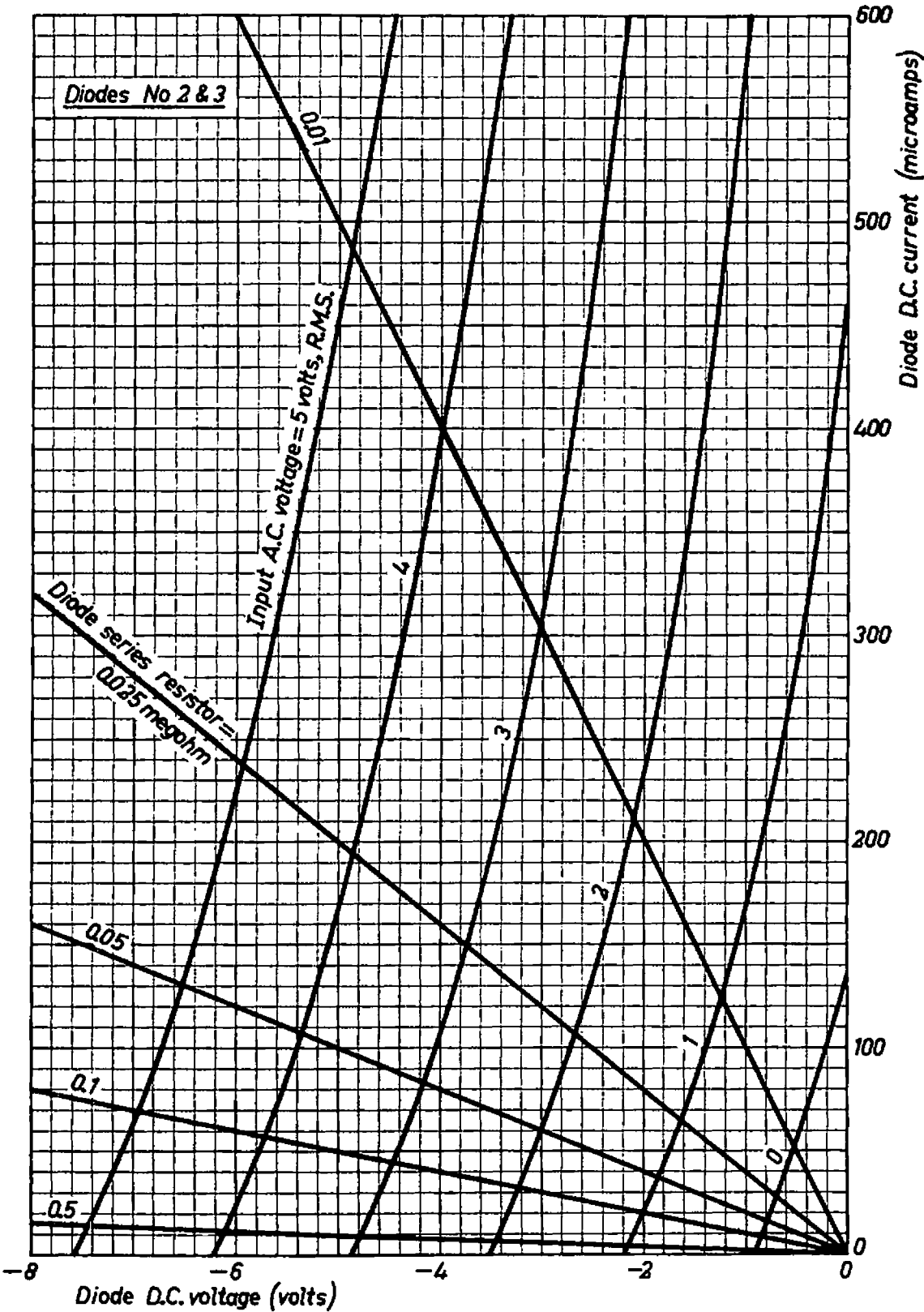
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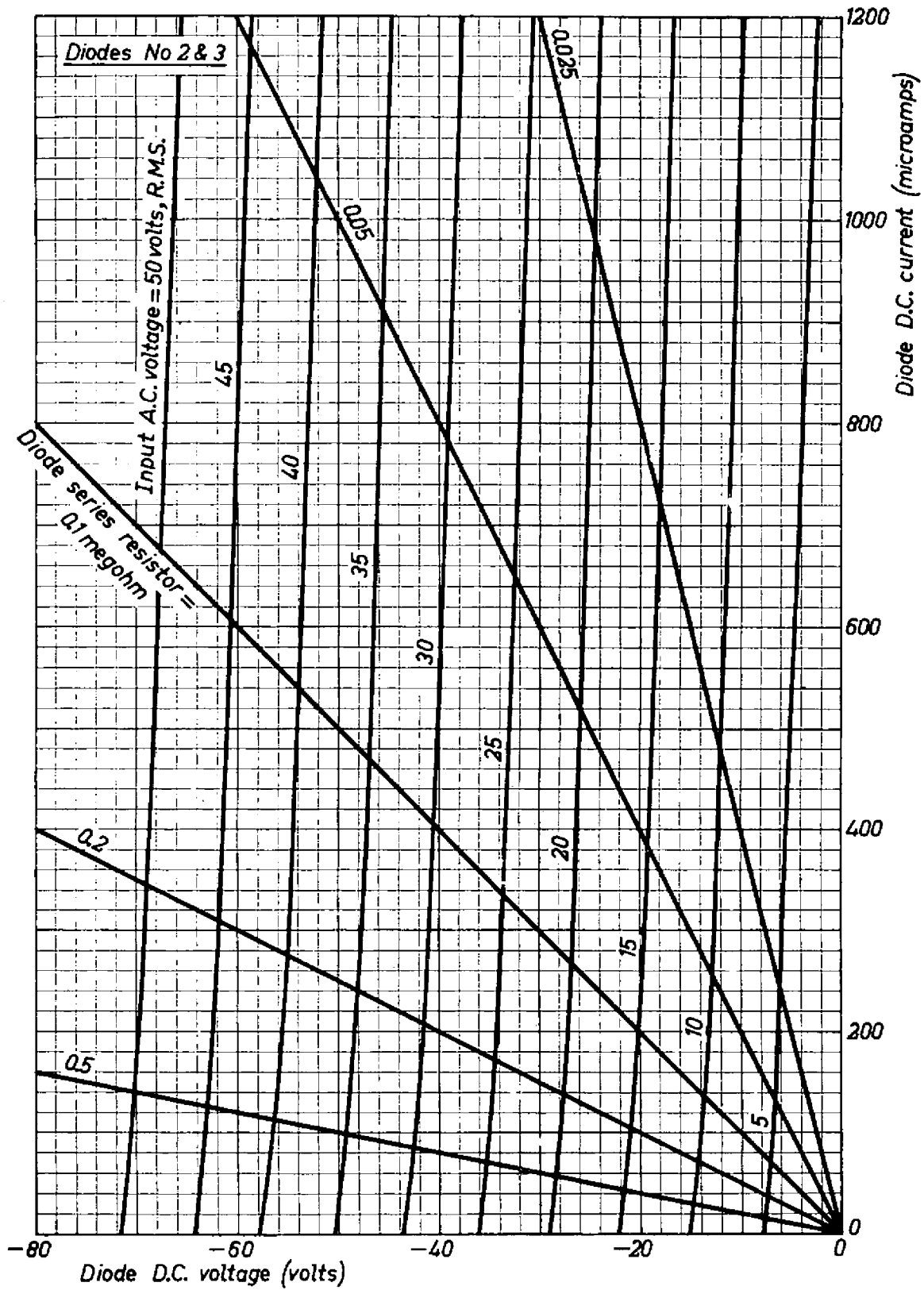




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