

"Miniwatt"

6M5

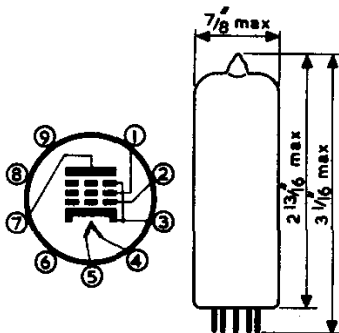
POWER PENTODE

GENERAL DATA

Cathode	Coated unipotential
Base	Small-button Noval 9-pin
Bulb	T6 $\frac{1}{2}$
Mounting position	Any

Basing Connections

Pin 1 -	Grid No.2
Pin 2 -	Grid No.1
Pin 3 -	Cathode, grid No.3
Pin 4 -	Heater
Pin 5 -	Heater
Pin 6 -	Internal connection
Pin 7 -	Plate
Pin 8 -	Internal connection
Pin 9 -	Internal connection



GENERAL ELECTRICAL DATA

Heater voltage	6.3	volts
Heater current	0.71	amp

Direct Interelectrode Capacitances

Input	10	μ F
Output	6.2	μ F
Grid No.1 to plate	max. 1.0	μ F
Grid No.1 to heater	max. 0.15	μ F

MAXIMUM RATINGS(Design-Centre Values)

Plate voltage(without current)	550	volts
Plate voltage	300	volts
Plate dissipation	9	watts
Grid No.2 voltage(without current)	550	volts
Grid No.2 voltage	300	volts
Grid No.2 dissipation(zero-signal input)	1.4	watts
Grid No.2 dissipation(max.-signal input)	3.3	watts
Cathode current	55	mA
Grid No.1 voltage at grid No.1 current = + 0.3 μ A	-1.3	volts
Heater-cathode voltage	100	volts
External grid No.1 resistance	1	megohm
External heater-cathode resistance	20,000	ohms

TYPICAL OPERATING CONDITIONS
Audio Power Amplifier - Class A (Single Valve)

Plate voltage	150	200	250	volts
Grid No.2 voltage	150	200	250	volts
Cathode resistor	160	140	170	ohms
Plate current	20	30	36	mA
Grid No.2 current	2.7	4.1	5.2	mA
Mutual conductance	-	-	10,000	μmhos
Amplification factor				
(grid No2 to grid No.1)	-	-	22	
Plate resistance	-	-	40,000	ohms
R.M.S. signal input voltage	2.22	3.0	3.8	volts
Plate load resistance	7000	7000	7000	ohms
Power output	1.3	2.75	3.9	watts
Total harmonic distortion	10	10	10	%
Power output at grid No.1				
current = + 0.3 μA			4.8	watts
R.M.S. input voltage for				
power output of 50mW			0.32	volts

Audio Power Amplifier - Class AB (Two Valves)

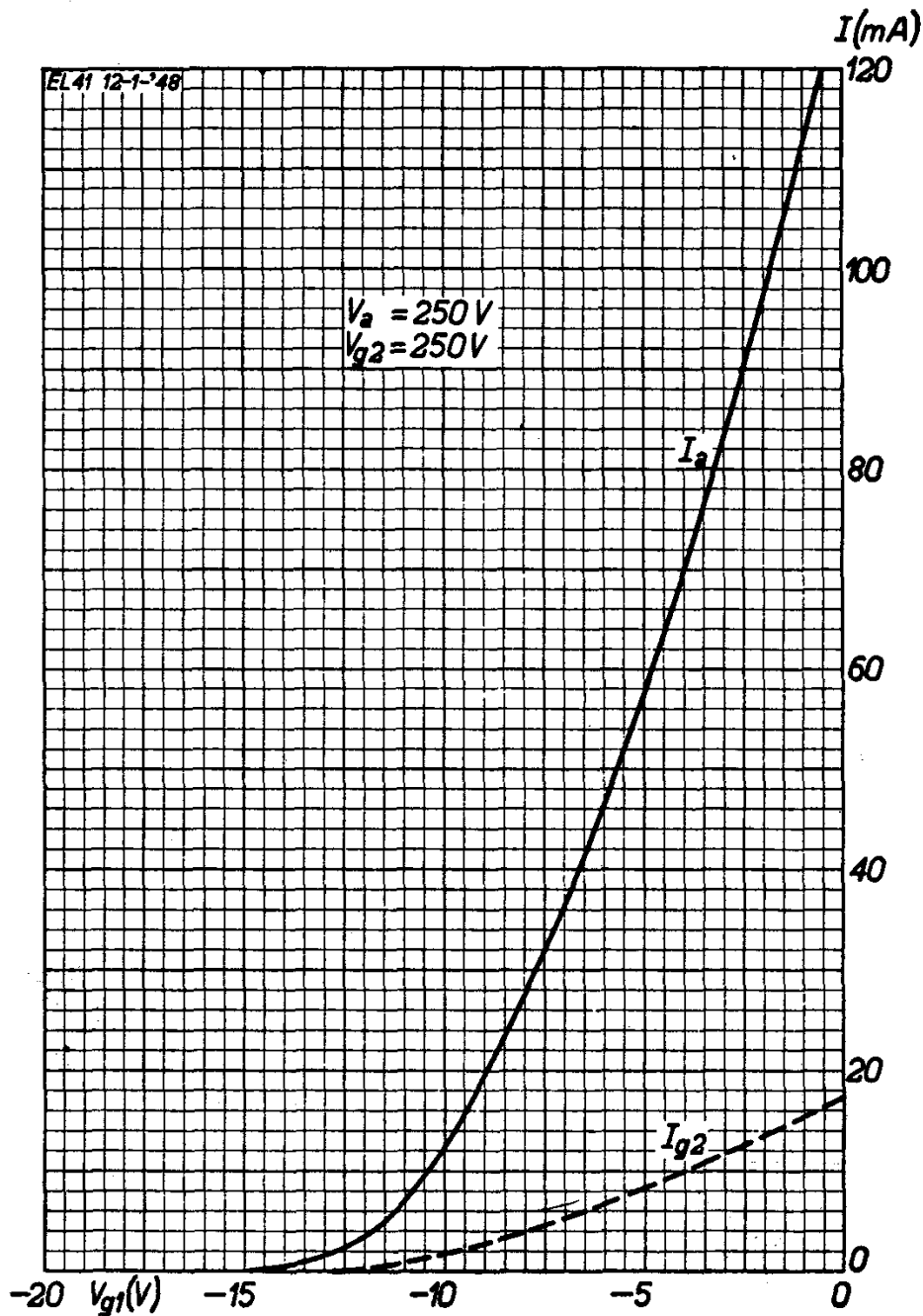
Plate voltage	250	volts
Grid No.2 voltage	250	volts
Cathode resistor	85	ohms
Plate to plate load resistance	7000	ohms
Zero-signal plate current	2 x 36	mA
Max.-signal plate current	2 x 39.5	mA
Zero-signal grid No.2 current	2 x 5.2	mA
Max.-signal grid No.2 current	2 x 8.0	mA
R.M.S. signal input voltage	5.6	volts
Power output	9.4	watts
Total harmonic distortion	4.6	%

Audio Power Amplifier - Class A (Triode Connected)
 (Grid No.2 connected to plate)

Plate voltage	250	volts
Cathode resistor	250	ohms
Plate current	33	mA
Plate load resistance	3500	ohms
R.M.S. signal input voltage	6.0	volts
Power output	1.55	watts
Total harmonic distortion	8	%

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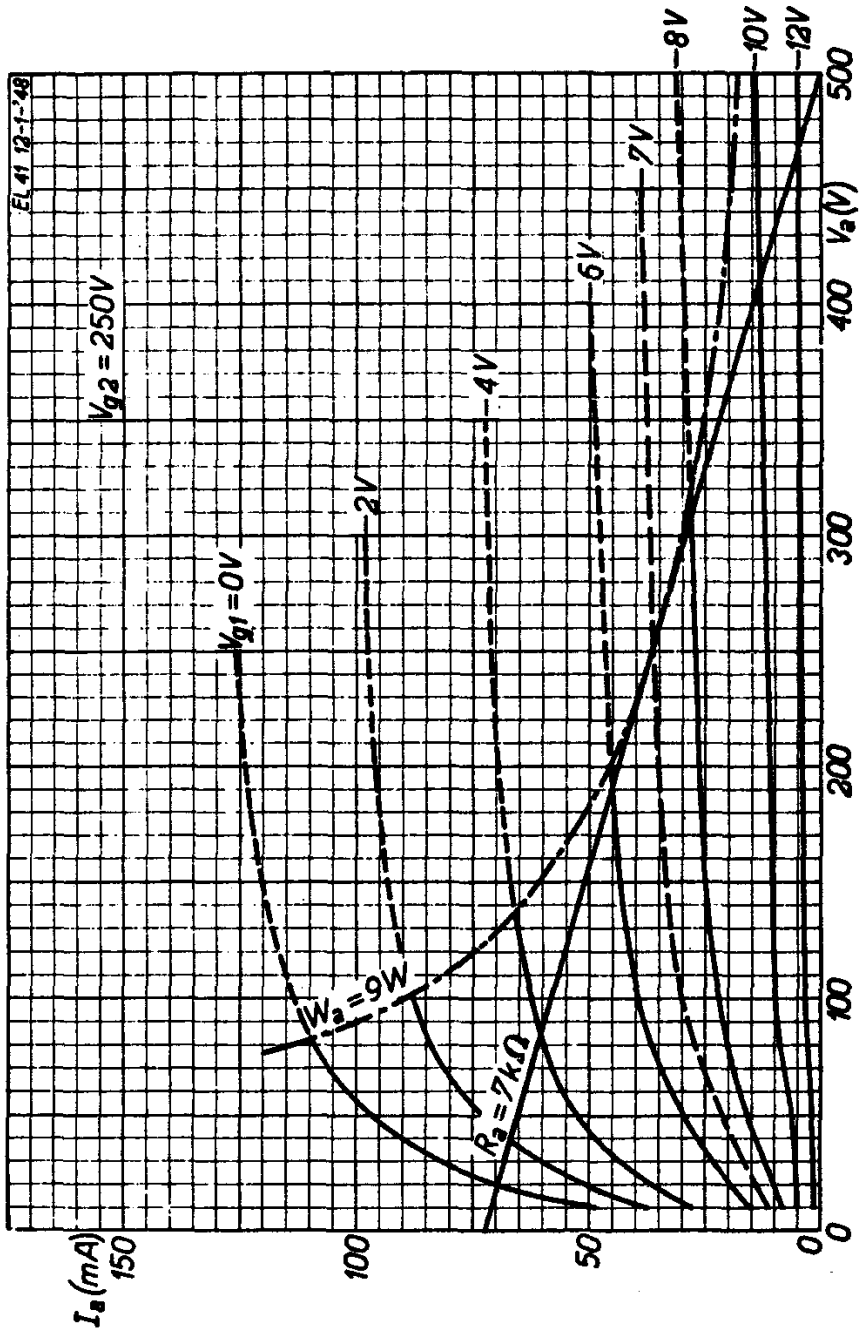
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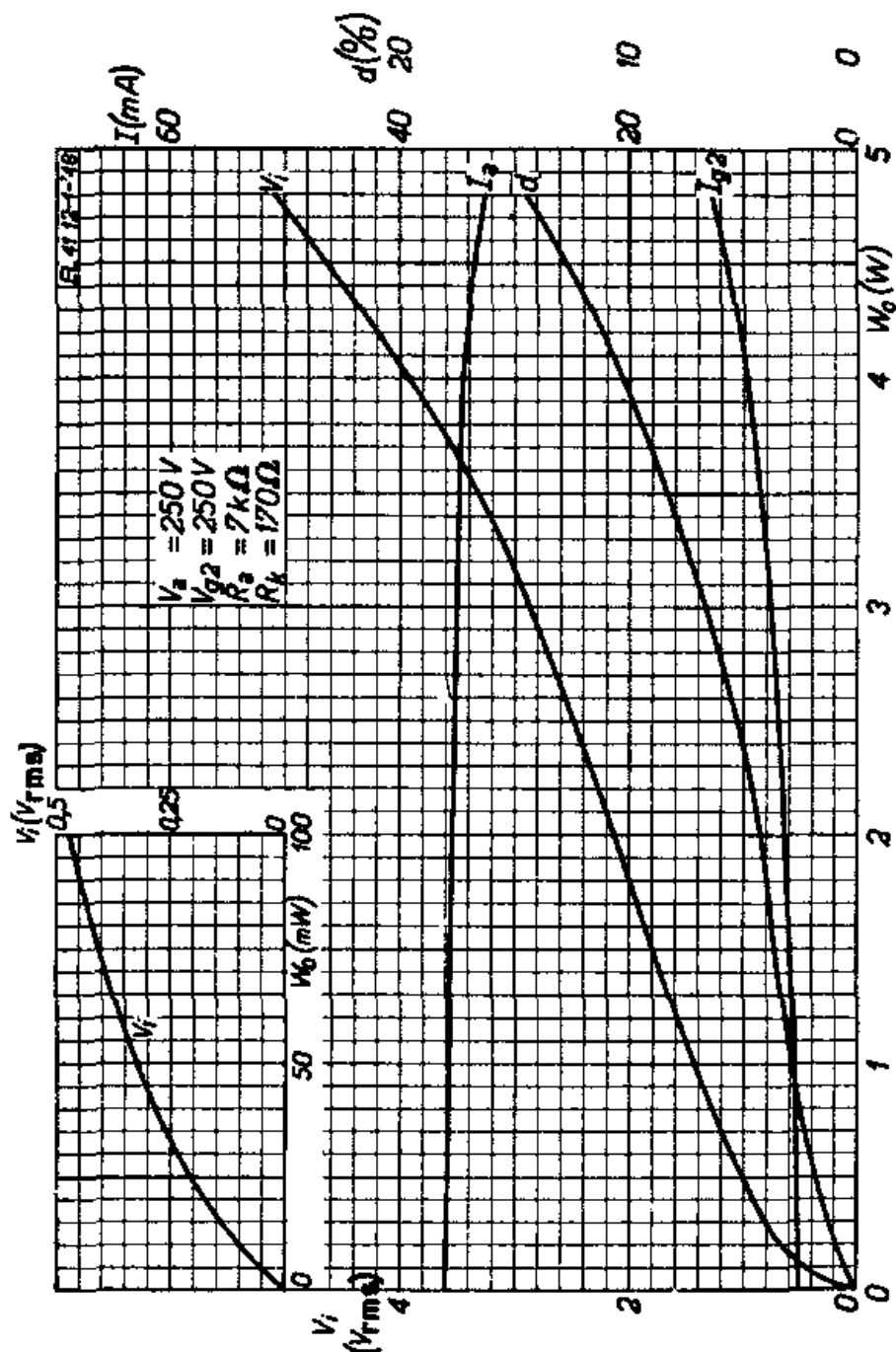


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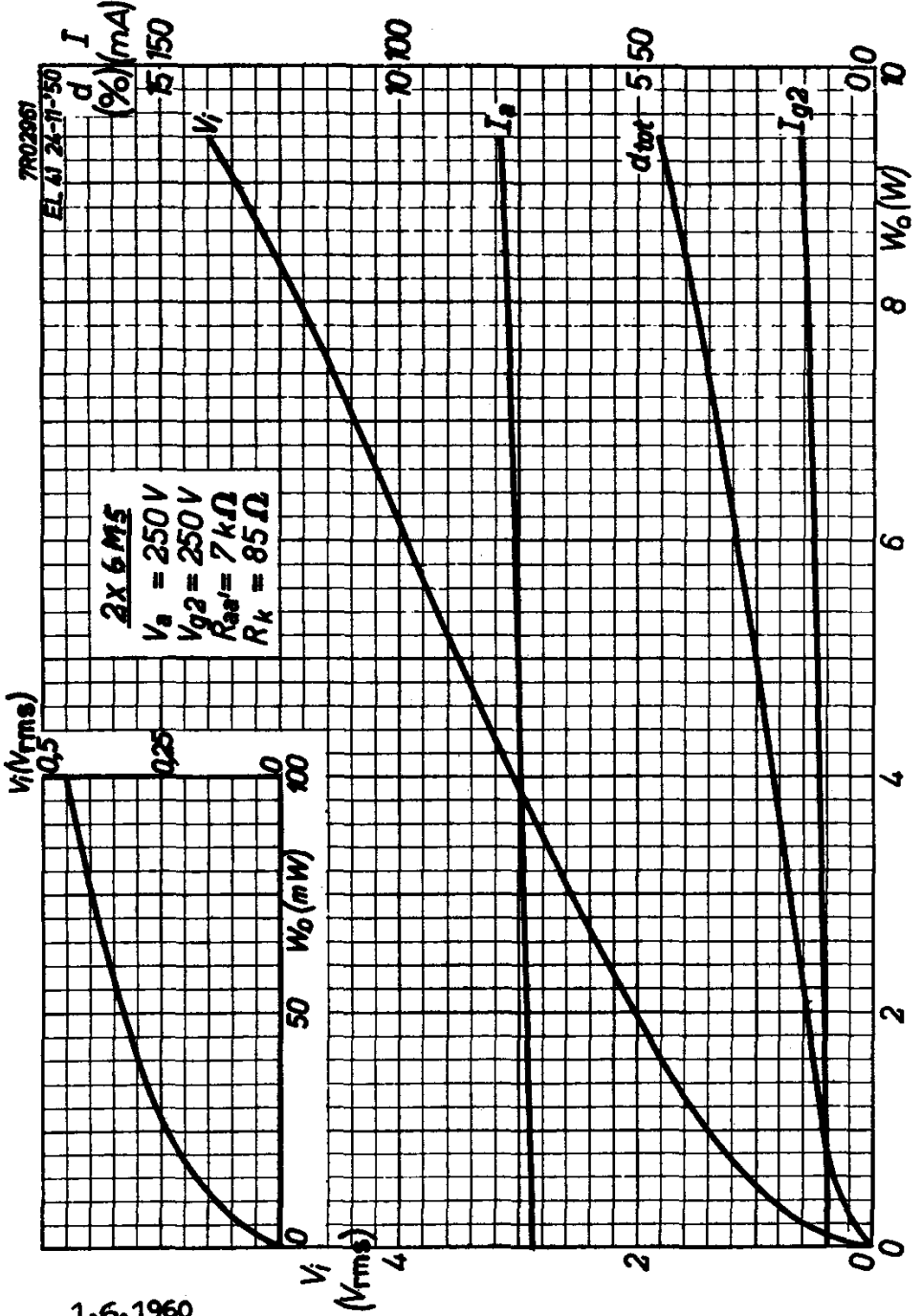


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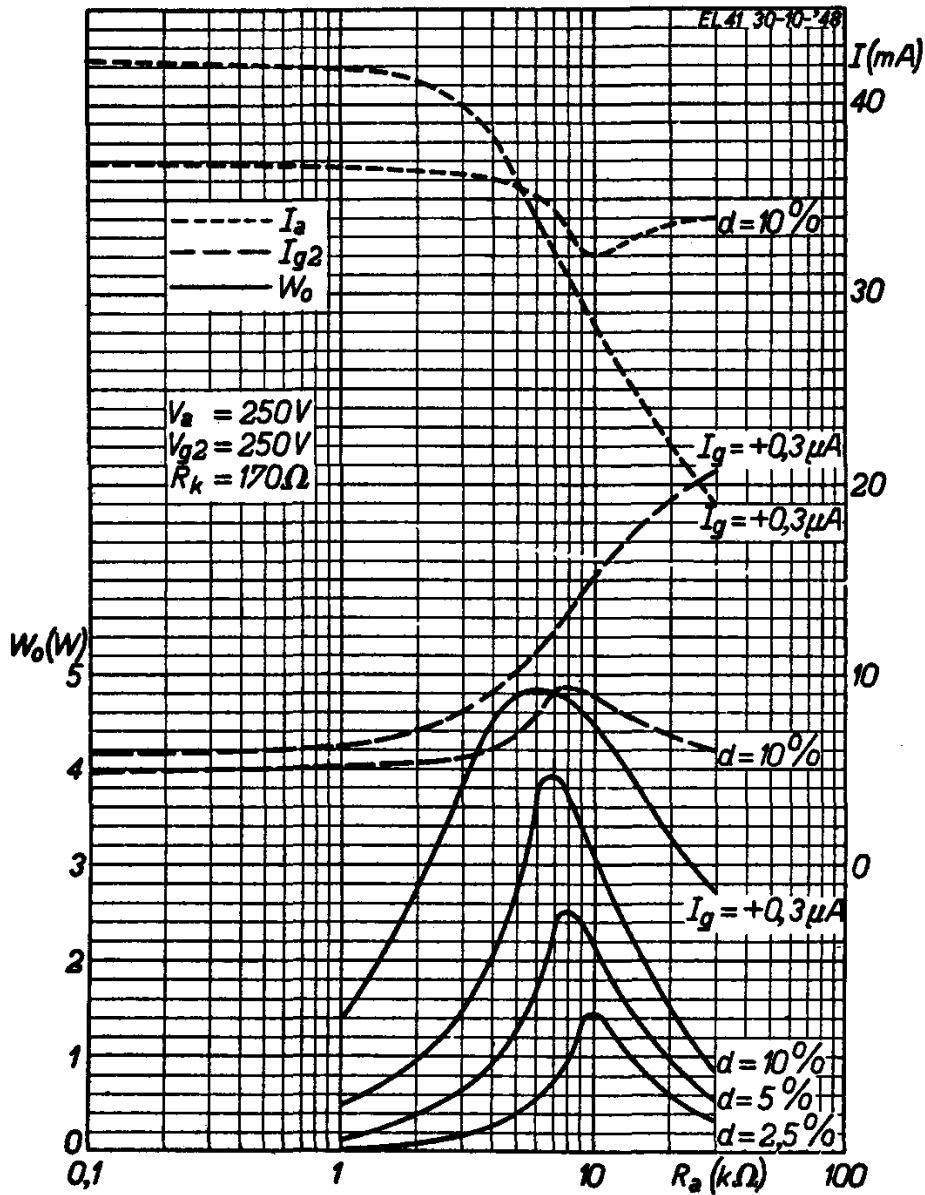
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