

SPECIAL QUALITY TRIODE for use as grounded grid aerial amplifier for bands IV and V

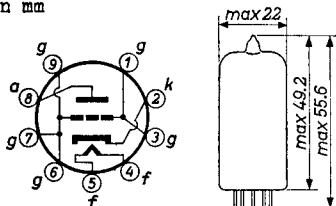
HEATING

Indirect by A.C. or D.C.; parallel supply

Heater voltage $V_f = 6.3 \text{ V}$

Heater current $I_f = 155 \text{ mA}$

Dimensions in mm



Base: NOVAL

CAPACITANCES

Without external screening

Anode to grid $C_{ag} = 1.2 \text{ pF}$

With external screening, connected to the grid; inside diameter 22.2 mm

Anode to grid $C_{ag} = 1.7 \text{ pF}$

Grid to heater and cathode $C_{g(k+f)} = 3.8 \text{ pF}$

Anode to heater and cathode $C_{a(k+f)} = 0.055 \text{ pF}$

LIMITING VALUES (Absolute limits)

Anode voltage in cold condition $V_{a0} = \text{max. } 400 \text{ V}$

Anode voltage $V_a = \text{max. } 200 \text{ V}$

Anode dissipation $W_a = \text{max. } 2.4 \text{ W}$

Cathode current $I_k = \text{max. } 15 \text{ mA}$

Negative grid voltage $-V_g = \text{max. } 50 \text{ V}$

External grid resistance (with cathode resistor of 100 Ω) $R_g(R_k=100 \Omega) = \text{max. } 1 \text{ M}\Omega$

Voltage between heater and cathode (cathode positive) $V_{kf}(k \text{ pos.}) = \text{max. } 125 \text{ V}$

Voltage between heater and cathode (cathode negative) $V_{kf}(k \text{ neg.}) = \text{max. } 60 \text{ V}$

TYPICAL CHARACTERISTICS

Heater voltage	V_f	=	6.3 V
Anode voltage	V_a	=	160 V
Grid voltage	V_g	=	-1.25 V
Anode current	I_a	=	12.5 mA
Mutual conductance	S	=	13.5 mA/V
Amplification factor	μ	=	65
Internal resistance	R_i	=	4.8 k Ω
Equivalent noise resistance	R_{eq}	=	240 Ω
Noise figure at 850 Mc/s	$F(f=850 \text{ Mc/s})$	=	10 dB

Grid current starting point

Heater voltage	V_f	=	6.3 V
Anode voltage	V_a	=	0 V
Positive grid current	$+I_g$	=	0.3 μ A
Negative grid voltage	$-V_g$	<	1.3 V

Series resonance frequencies

Measured between a point on the relevant tube pin close to the tube bottom and a point close to the relevant pin on a metal reference plane, placed against the tube bottom. All the pins, except the relevant one, are connected to the reference plane with a negligible impedance. The tube is screened by a metal cylinder with an inside diameter of 22.2 mm placed upon the metal reference plane.

Heater voltage	V_f	=	0 V
Anode voltage	V_a	=	0 V
Anode resonance frequency	f_{oa}	=	1700 Mc/s
Cathode resonance frequency	f_{ok}	=	1000 Mc/s

OPERATING CHARACTERISTICS

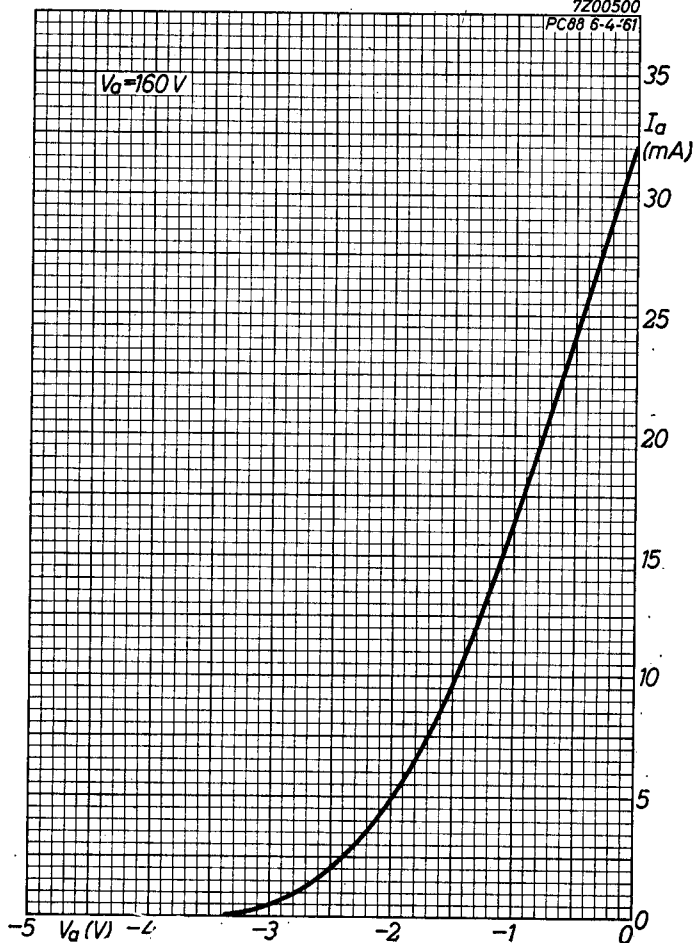
Heater voltage	V_f	=	6.3 ¹⁾	6.3 V
Anode supply voltage	V_{ba}	=	170 ¹⁾	161 V
Grid supply voltage	V_{bg}	=	+9 ¹⁾	0 V
Cathode resistor	R_k	=	820 ¹⁾	100 Ω
Anode current	I_a	=	12.5	12.5 mA

¹⁾ Recommended operating conditions

SQ**PHILIPS****E88C**

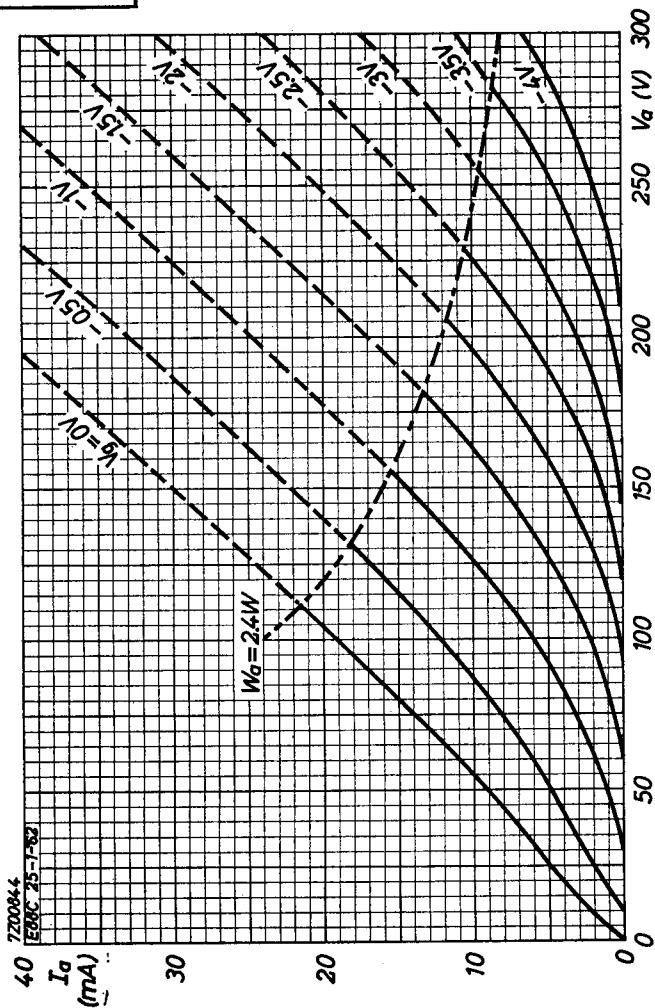
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