

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

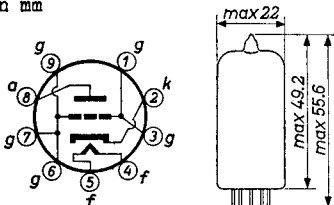
### HEATING

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	$V_{a0}$	= max. 400 V
Anode voltage	$V_a$	= max. 200 V
Anode dissipation	$W_a$	= max. 2.4 W
Cathode current	$I_k$	= max. 15 mA
Negative grid voltage	$-V_g$	= max. 50 V
External grid resistance (with cathode resistor of 100 $\Omega$ )	$R_g(R_k=100 \Omega)$	= max. 1 M $\Omega$
Voltage between heater and cathode (cathode positive)	$V_{kf}(k \text{ pos.})$	= max. 125 V
Voltage between heater and cathode (cathode negative)	$V_{kf}(k \text{ neg.})$	= max. 60 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	$\mu$	=	65
Internal resistance	$R_i$	=	4.8 k $\Omega$
Equivalent noise resistance	$R_{eq}$	=	240 $\Omega$
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 $\mu$ 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

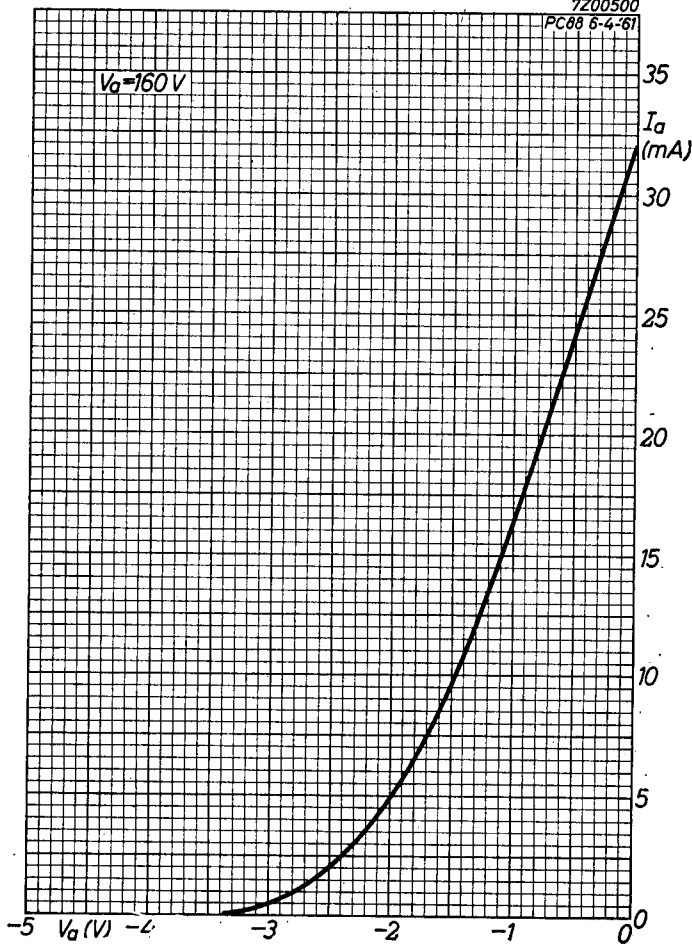
Heater voltage	$V_f = 6.3$	<sup>1)</sup>	6.3 V
Anode supply voltage	$V_{ba} = 170$	<sup>1)</sup>	161 V
Grid supply voltage	$V_{bg} = +9$	<sup>1)</sup>	0 V
Cathode resistor	$R_k = 820$	<sup>1)</sup>	100 $\Omega$
Anode current	$I_a = 12.5$		12.5 mA

<sup>1)</sup> Recommended operating conditions

**SQ****PHILIPS****E88C**

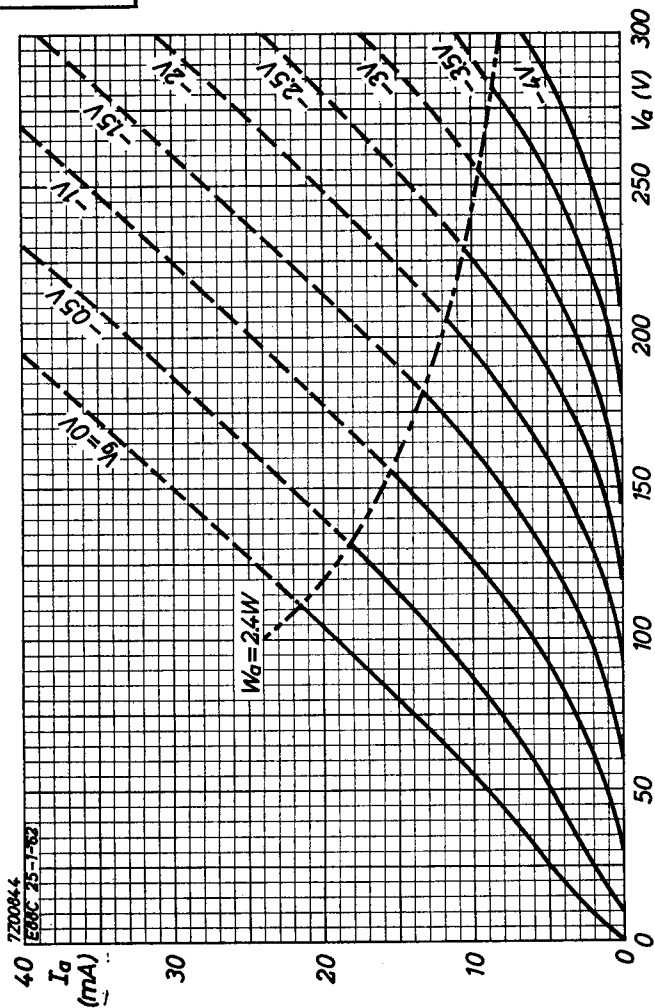
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PC88 6-4-61



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**E88C****PHILIPS****SQ****B**

**PHILIPS**



*Electronic  
Tube*

**HANDBOOK**

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3	A	1962.07.07
4	B	1962.07.07
5	FP	1999.06.11