

U.H.F. TRIODE

Triode intended for use as grounded grid U.H.F. amplifier for bands IV and V.

QUICK REFERENCE DATA

Anode current	I_a	12.5 mA
Transconductance	S	13.5 mA/V
Amplification factor	μ	65

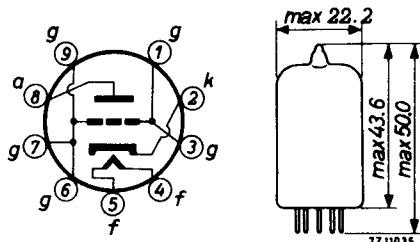
HEATING: Indirect by A.C. or D.C.; series supply

Heater current	I_f	300 mA
Heater voltage	V_f	3.8 V

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval



CAPACITANCES

Without external screen

Anode to grid	C_{ag}	1.2 pF
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With external screen (inside diameter 22.2 mm)

Anode to grid	C_{ag}	1.7 pF
Grid to anode + cathode	$C_{g/kf}$	3.8 pF
Anode to heater + cathode	$C_{a/kf}$	0.055 pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	160 V ¹⁾
Cathode resistor	R_k	100 Ω ¹⁾
Anode current	I_a	12.5 mA
Transconductance	S	13.5 mA/V
Amplification factor	μ	65
Equivalent noise resistance	R_{eq}	240 Ω
Noise figure at $f = 850$ MHz	F	10 dB
Anode voltage	V_a	0 V
Grid current, positive	I_g	0.3 μA
Grid voltage	$-V_g$	max. 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.

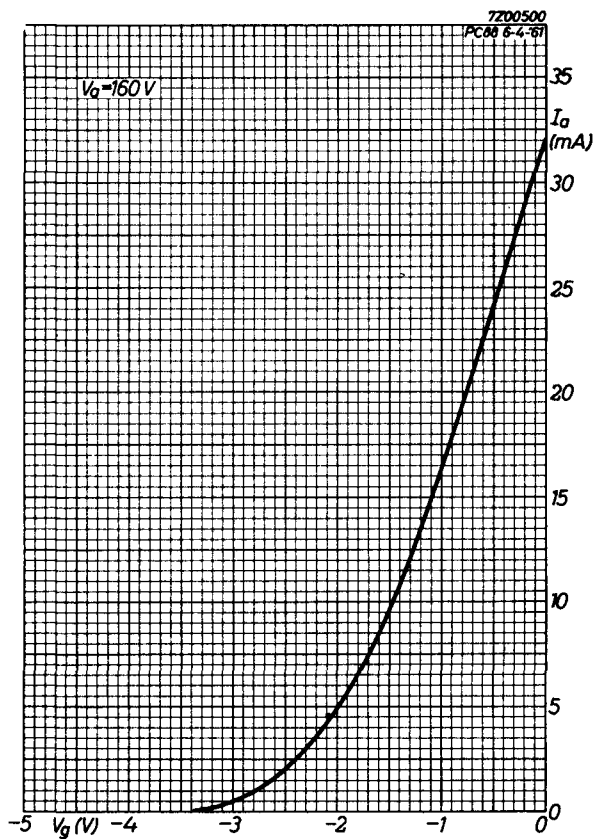
The tube is screened by a metal screen with an inside diameter of 22.2 mm placed upon the metal reference plane.

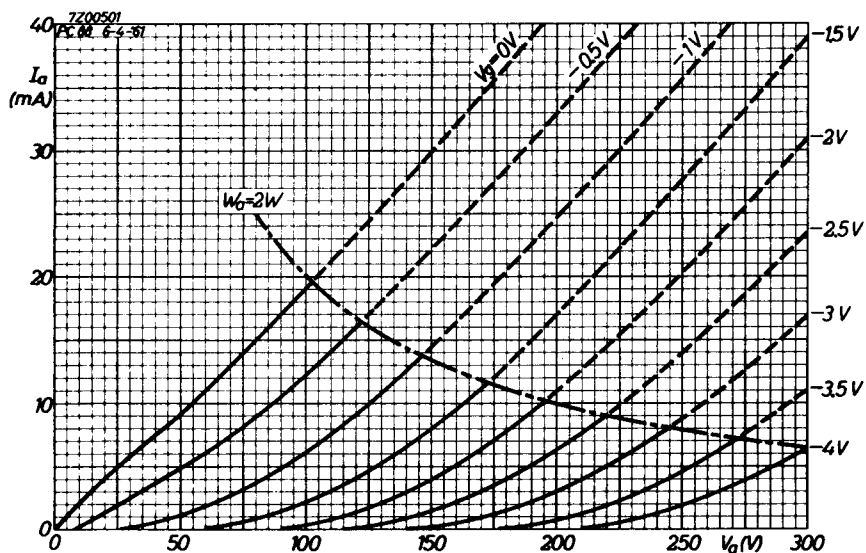
Heater voltage	V_f	0 V
Anode voltage	V_a	0 V
Anode resonance frequency	f_{0a}	1700 MHz
Cathode resonance frequency	f_{0k}	1000 MHz

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a0}	max. 550 V
	V_a	max. 175 V
Anode dissipation	W_a	max. 2 W
Cathode current	I_k	max. 13 mA
Grid voltage	$-V_g$	max. 50 V
Grid resistor ($R_k = 100 \Omega$)	R_g	max. 1 M Ω
Cathode to heater voltage	V_{kf}	max. 100 V ¹⁾

¹⁾ To fulfil the modulation hum requirements, the A.C. component should not exceed 50 V_{RMS}.





PHILIPS

Data handbook



**Electronic
components
and materials**

PC88

page	sheet	date
1	1	1969.12
2	2	1969.01
3	3	1969.01
4	4	1969.01
5	FP	1999.07.30